

# ARDERSIER PORT ENERGY TRANSITION FACILITY (ETF) PORT EXTENSION



EIA SCOPING  
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# Contents Page

## Chapters

1. Introduction
2. Site History
3. Proposed Development
4. Baseline Environment & Key Features
5. Potential Effects & Scope

## Figures

- 1 – Site Location
- 2 – Site Layout
- 3 - Consented development & proposed extension areas, quay line and proposed additional dredge layout
- 4 - Proposed extension key features
- 5 - Key Designations & Environmental Constraints/Considerations

## Appendix A – Technical Topics (Hyperlinked)

- Landscape, Seascape and Visual
- Transport & Access
- Air Quality
- Noise
- Historic Environment
- Population & Human Health
- Climate & Resilience
- Hydrology & Hydrogeology
- Coastal Processes & Geomorphology
- Geology, Soils & Contaminated Land
- Terrestrial Ecology
- Marine Mammals

This report outlines the suggested scope of the Environmental Impact Assessment (EIA) for the proposed port extension at Ardersier (the Proposed Development). The extension aims to enhance port facilities to provide additional operational areas within the energy transition facility (ETF). The Site Location and Site Layout are provided in **Figure 1** and **Figure 2**.

## 1.1 Project Need – Driver for Expansion

Increasing the scale of the Ardersier Port Energy Transition Facility (Ardersier ETF) supports the economic growth and net zero ambitions of both the Scottish and UK Governments. The logistical, manufacturing and assembly needs of the offshore wind industry require very large land areas, not least due to project scale and size of components.

Port capacity is widely recognised as one of the major bottlenecks to the deployment of offshore wind. The Ardersier Port ETF provides the platform, at the scale required, for significant local content, multiple inward investment opportunities, and thousands of high-skilled jobs. The level of current potential tenant interest in acreage at the site, both from offshore wind developers and the manufacturing and assembly supply chain, would exceed the existing acreage. It is a reasonable expectation that demand from the offshore wind industry and supply chain for port space will grow over the coming decades. Increasing the scale of the site therefore considerably enhances the ability to serve this critical energy sector, securing additional manufacturing and assembly opportunities for the Highlands region and for Scotland, and supporting the acceleration and rapid catalysation of industrial development of the floating offshore wind industry.

In terms of Ardersier Port ETF's existing site, the economic impact the site will enable will be significant and will be enhanced by increasing the scale of the facility, enabling several large-scale sites for manufacturing and assembly whilst also providing significant storage and marshalling acreage. According to BiGGAR Economics who evaluated the economic impact of the Ardersier ETF, the site can enable an additional 12GW of offshore wind by 2030, with the Scottish economy expected to secure contracts worth £14 billion to support this capacity. A larger site enhances capability to serve the offshore wind deployment imperative, supports a more rapid build out of offshore wind, and can secure more in-country value for Scotland and the UK.

**Figure 1: Site Location**



Figure 2: Site Layout (with the proposed extension shown in yellow)



## 1.2 Regulations

The EIA process and the EIA Report (EIAR) output for the proposed port extension will comply with the requirements of the following:

- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017
- The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017

## 1.3 EIA Team

We have endeavoured to streamline the manner in which information is presented whilst ensuring this document contains the necessary information with which to adopt a Scoping Opinion. This document has been prepared by the specialists set out in **Table 1**.

**Table 1: EIA Technical Specialists**

Topic	Specialist	Company
EIA	Campbell Fleming Becky McLean	Haventus Sweco
Landscape and Visual	Phil Black	Sweco
Transport & Access	Ruth Mustard	Sweco
Air Quality	Lee Shelton	Sweco
Noise	Jim Singleton	TNEI
Historic Environment	Gareth Talbot	University of Highlands and Islands
Population and Human Health	Rebecca McClenaghan & Chloe Caesar	Sweco
Climate & Resilience	Caitlin Hill	Sweco
Hydrology & Hydrogeology	Iain Struthers	EnviroCentre
Coastal Processes & Geomorphology	Martin Nichols	EnviroCentre
Geology, Soils and Contaminated Land	Campbell Fleming	Haventus
Material Assets and Waste	Becky McLean	Sweco
Terrestrial Ecology	Doug Blease	TetraTech
Marine Mammals	Rachel Sinclair & Jack Clarkson	SMRU Consulting
Heat & Radiation	Becky McLean	Sweco
Major Hazards & Accidents	Campbell Fleming	Haventus
Electric and Magnetic Fields (EMF)	Becky McLean	Sweco
Transboundary Effects	Becky McLean	Sweco
Cumulative	Becky McLean	Sweco

**Image 1: Historical Image of the site during previous operation**



### 2.1 Historical Context

The site has an industrial history (**Image 1**), having been a hub of activity for the energy sector in Scotland. In the 1970s a substantial area of land was reclaimed from the foreshore and utilised for industrial purposes for the fabrication and construction of off-shore platforms for the oil and gas industry, employing in the region of 4500 people.

Activity ceased in early 2000 and it was vacant for approximately 18 years. Once closed, it became one of the largest brownfield sites in the UK and the site has undergone significant decontamination works since operations ceased.

### 2.2 Previous Planning Applications

Planning permission in principle (PPiP) was sought and granted in January 2014 (application reference: 13/01689/PIP) for the following.

*“Establish a port and port related services for energy related uses, including marine channel dredging, quay realignment, repair and maintenance, erection of offices, industrial and storage buildings and associated infrastructure, delivery and export of port related cargo, associated new road access, parking, infrastructure, services, temporary stockpiling of dredged material, re-grading and upfilling of landward areas and landscaping.”*

## 2. Site History

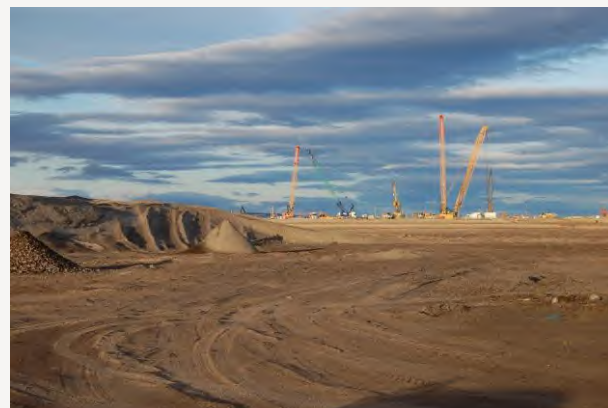
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### 2.3 Existing Consent

This PPiP was renewed on 4 February 2019 and the following components are currently being constructed:

- Access channel
- Quay wall construction
- Main port activity area
- Port support/administrative buildings
- Port related light industrial uses
- Temporary on-site storage area for dredged material
- Roundabout on B9092 and new security gatehouse

The images below (**Images 2, 3 and 4**) have been taken over the last few months of the current construction happening on site. Further information is available on the Haventus website ([Ardersier Port – Haventus](#)) including a fly through of the current consented development and what it could potentially look like during operation.



**Image 2, 3 and 4: Images showing current construction taking place on the site**

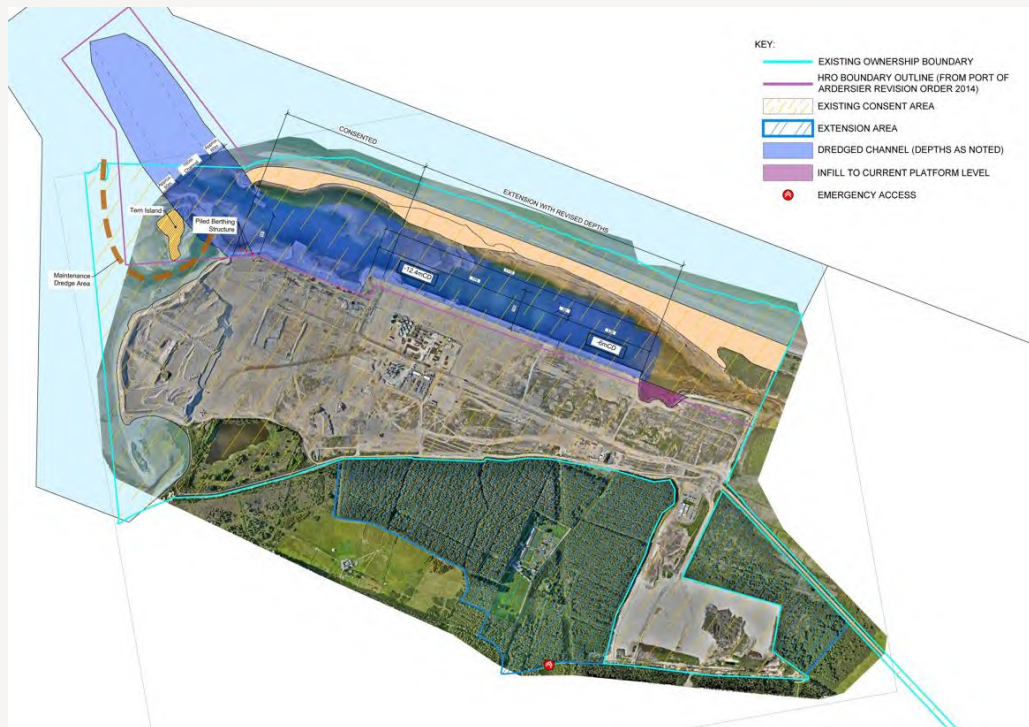
# 3. Proposed Development

## 3.1 Introduction

This proposed development (as summarised in **Figure 3** and shown in more detail in **Figure 4**) would be an **extension to the consented port** and would generally comprise:

- Additional quay construction through the existing platform (mainly on land and already consented under the Harbour Revision Order (HRO)) by a combination of diaphragm wall (same method as the already constructed quay walls) and vibropiling and conventional sheet piling.
- Removal of old sheet piles to the north of the new quay wall which may involve temporary sand bunds
- A small area of infilling behind the new quay wall
- Selected deepening of the inner harbour by dredging (approximately 2,000,000m<sup>3</sup>)
- Sea disposal, Whiteness Sands nourishment and possible beneficial re-use on land or at remote site
- Possible maintenance dredge to west of Tern Island
- Scour protection in inner harbour
- A potential slipway as described in the existing Harbour Revision Order
- Localised crushed rock mattress for east of harbour
- Mooring dolphins
- Site clearance of extension lands (tree felling and clearing )
- Land raising and levelling of extension lands to suitable height with dredged sand
- Creation of working platform through stone placement
- Install new drainage to extension land perimeter
- Port and offshore wind related buildings including manufacturing, workshops, assembly facilities (principally bases), storage, offices and business units.

**Figure 3** Consented development & extension areas, quay line and proposed additional dredge layout



## 3.2 Project Description

Following the agreement of options covering additional land to the south and east of the currently consented area, the proposed development application seeks to bring this new land into use for the same purpose and further modify the quayside areas for maximum efficiency. This application will be described as follows:

*“Continued port development and expansion of port related services for energy related uses, including marine dredging within the inner harbour, sea disposal of dredged sands, possible temporary stockpiling of dredged material, quay construction, erection of offices, industrial and storage buildings and associated infrastructure including manufacturing, assembly, storage, delivery and export of port related cargo, parking, infrastructure, services, upfilling and re-grading/surfacing of new landward areas and landscaping.”*

Figure 4: Proposed extension key features





### 3.3 Nature and Purpose of the Extension and Associated Works

The purpose of the site extension area is the same as that described in the 2018 EIA Report (which was prepared to renew the 2014 PPIP), namely port and port related services for energy related uses, the overriding focus being servicing and support to offshore wind development. The fundamental difference of the proposed extension to that of the 2018 EIA is that this necessitates clearing a large, wooded area, and an area of gorse and trees, to create a larger working platform whereas in the 2018 EIA and application only brownfield land was being developed. This project is to extend the Ardersier Port and therefore the general location is fixed, alternative locations are not viable as direct access to quayside is necessary for the activities on site. During the EIA process, we will however evaluate alternative designs, sizes, scale and construction methods to remove or reduce environmental impacts.

The current planning permission, and marine licences including the Harbour Revision Order (HRO) allow for various port infrastructure developments. It is likely that work associated with the existing consents will commence whilst the application for extension land is under review. This could include building additional quay wall and erection of buildings to support trading operations. The port is set to open in Autumn 2025, with decisions on the extension applications likely not made until early 2026.

### 3.4 Design Approach

Whilst the principles of the development are very well understood, the detail design is being developed in conjunction with the EIA process as the EIA Regulations intended. This approach ensures that the design can seek to avoid/prevent, reduce or mitigate impacts upon the environment and maximise the opportunity to “*protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration*” in accordance with National Planning Framework 4 ([National Planning Framework 4 - gov.scot](#)). The design and EIA process will also be informed by the scoping exercise and the stakeholder consultation activities in advance of submission of applications in September 2025. For the extension areas, the key activities for the proposed development (construction and operation phases), that were not consented as part of the 2018 EIA are summarised below.

### 3.5 Construction

The following activities will be undertaken during the construction phase for the extension:

- Selected deepening of the inner harbour to -12.4mCD by dredging (approximately 2,000,000m<sup>3</sup>);
- Removal of old sheet piles in front of the new quay wall along with possible temporary sand bunds;
- Possible local scour protection (rock armour) in inner harbour;
- Localised rock mattress for east of harbour;
- Site clearance of extension lands (tree felling, stump and topsoil removal);
- Land raising and levelling of extension lands to suitable height with dredged sand;
- Creation of working surface through stone placement; and
- Install new drainage to extension land southern perimeter.

#### 3.5.1 Terrestrial Site Clearance

The two extension areas amount to a total of 197 acres of additional land. The western segment of extension land is a total of 157 acres, of which approximately 120 acres is dominated by mature Scots Pine plantation woodland. The eastern segment of extension land totals 40 acres. Most of this comprises gorse with scattered Scots Pine, Silver Birch and occasional Goat Willow, although a small area (5 acres) of Early-Mature Birchwood with Scots Pine and Goat Willow lies along the southern and eastern boundary.

#### *Site Clearance*

The above habitats will require to be cleared to create the new working platform. The first step in site clearance will be to remove the trees, tree roots, and gorse. Soil stripping will then be required to establish a suitable founding strata for subsequent land-raising.

Tree removal and soil stripping is expected to take approximately six months (with avoidance of any identified sensitive ecological seasons). From commencement of the tree removal, processing of trees (whether lumber or biomass chipping) would concurrently take place on adjacent areas of the existing platform. Lumber and/or biomass chips would then be removed from site. The preferred option is export by ship, however removal by HGV may also be required, particularly if a local end-user of the material is identified. Full processing of trees and export would extend beyond the 6-month tree removal period.

During the tree, vegetation and soil removal exercise temporary perimeter drainage would be installed to accommodate flows from ditches from the south of the site, and water within the site clearance area would be collected and treated prior to discharge. Discharges during the majority of the clearance and upfilling works would be through the existing pipes under the current platform.

### ***Land-raising and Platform Creation***

The current consented platform height is 4.51mAOD (+6.65 mCD), and the extension land platform will be brought up to the same level by infilling with dredged sands, topped with a crushed rock pavement. The western segment of the extension lands lies generally at between approximately 2.3 and 4.3 mAOD, and the eastern segment of the extension lands at generally 2.9 to 4.0 mAOD. Therefore, an average land raise of approximately 1.7m and 1.0m will be required in the western and eastern extension areas, respectively. The total volume of fill required is estimated at 1.4Mm<sup>3</sup>.

### ***New Perimeter Drainage***

Within the extension lands are a series of old drains generally flowing broadly from south to north. One drain crosses the southern boundary and flows within this drain, and other overland flows entering the extension lands, will need to be accommodated and diverted around the site. Existing drains on site will be lost as infilling progresses. Design work is underway to establish the most appropriate route and form of such feature along the southern boundary. It is envisaged this will be an open ditch type watercourse.

### **3.5.2 Marine Works**

The marine works will encompass dredging of the harbour to 12.4m below Chart Datum (mCD), with a short section in the east at between -3 and -6 mCD. The general layout is shown in **Figure 1**. This approximate configuration will lead to approximately 2,000,000m<sup>3</sup> of sand and gravel requiring to be dredged.

Capital dredging will be by cutter suction dredger and/or trailer suction hopper dredger. It is envisaged that a large proportion of the dredge material will need to be disposed of at sea, although some material could potentially be used on the existing platform area and for upfilling extension lands. Wider beneficial re-use projects will also be explored, such as beach nourishment.

Maintenance dredging was considered within the 2018 EIA, and an application is being progressed currently for a maintenance dredge licence for the main harbour approach. That aspect of maintenance dredging does not form an integral part of this project (although it will be part of the cumulative assessments).

A short section of vibropiled and conventional sheet piling quay wall within the marine environment may be required as shown on **Figure 4**, along with infilling behind this to level off the platform.

Other potential marine works include the use of rock armour within the harbour on the northern margins of the dredge pockets to provide scour protection. This would also provide additional slope stability.

Certain base manufacturing processes and launches could require a crushed rock mattress on the seabed on which barges could rest, or where bases could temporarily sit whilst being finally fitted out, without the risk of them becoming suctioned onto the seabed. This could involve a 250m x 100m crushed rock mattress being installed on the seabed in the eastern part of the harbour where water depths would be to -6mCD or shallower.

# 3. Proposed Development

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## 3.6 Operation

When completed, it is expected that the proposed extension will generate an:

- Potentially increased number and size of shipping vessels travelling to and docking at the port over those anticipated for the quay as is currently under construction; and
- Additional operational activities on site that help with the partial assembly of offshore wind components.

Many of the planned activities for the extension areas will be the same as were envisaged for the currently consented site area, such as handling of offshore wind turbine components (nacelles, blades, tower sections, jackets), along with assembly or construction of bases, storage and various engineering support activities. Manufacturing is also envisaged for the extension area. There may also be additional light industrial or other supply chain support facilities.

Additional activity such as partial assembly of bases and tower sections to heights of generally 215m could be carried out on the site (this could in the future be occasionally up to a 250m ceiling). In terms of heights of components or structures the following are expected at present (heights referenced in the 2018 EIA, for already consented development are shown in bracketed italics where relevant):

- Partial assemble of turbines - bases and tower sections – generally up to 215m
- Jackets – 115m (*not quoted in 2018 but included*)
- Tower sections – 80m (*75-84m*)
- Vessel height – up to around 100m (*100-105m*)
- Cranes – 180m (*155m*)
- Buildings – 50m (*35-60m*)

Given the additional area of land that the extension area brings the number of vessel movements may rise in the short term). Generally, the vessel movements are anticipated to be between 250-350 per annum, comparable to the predicted 340 vessel calls per year in the 2018 application. There could, in the short term, potentially be 400 vessel calls per year at peak (initial operations are expected be similar in number to the 2018 predictions). These vessels would be a mix of semi-submersible crane vessels, heavy lift vessels, barges, general cargo vessels and various turbine installation vessels.

## 3.7 Cumulative

It is recognised that the construction and operational activities associated with the proposed extension could have cumulative effects over and above that of 2018 development for the existing site and surrounding area. The 2025 EIA will also consider the potential cumulative impacts with other known or foreseeable major developments in the Moray Firth and surrounding land areas, particularly those with a marine component whether that be new port infrastructure or shipping volume related changes.

# 4. Environmental Baseline & Key Features

## 4.1 Introduction

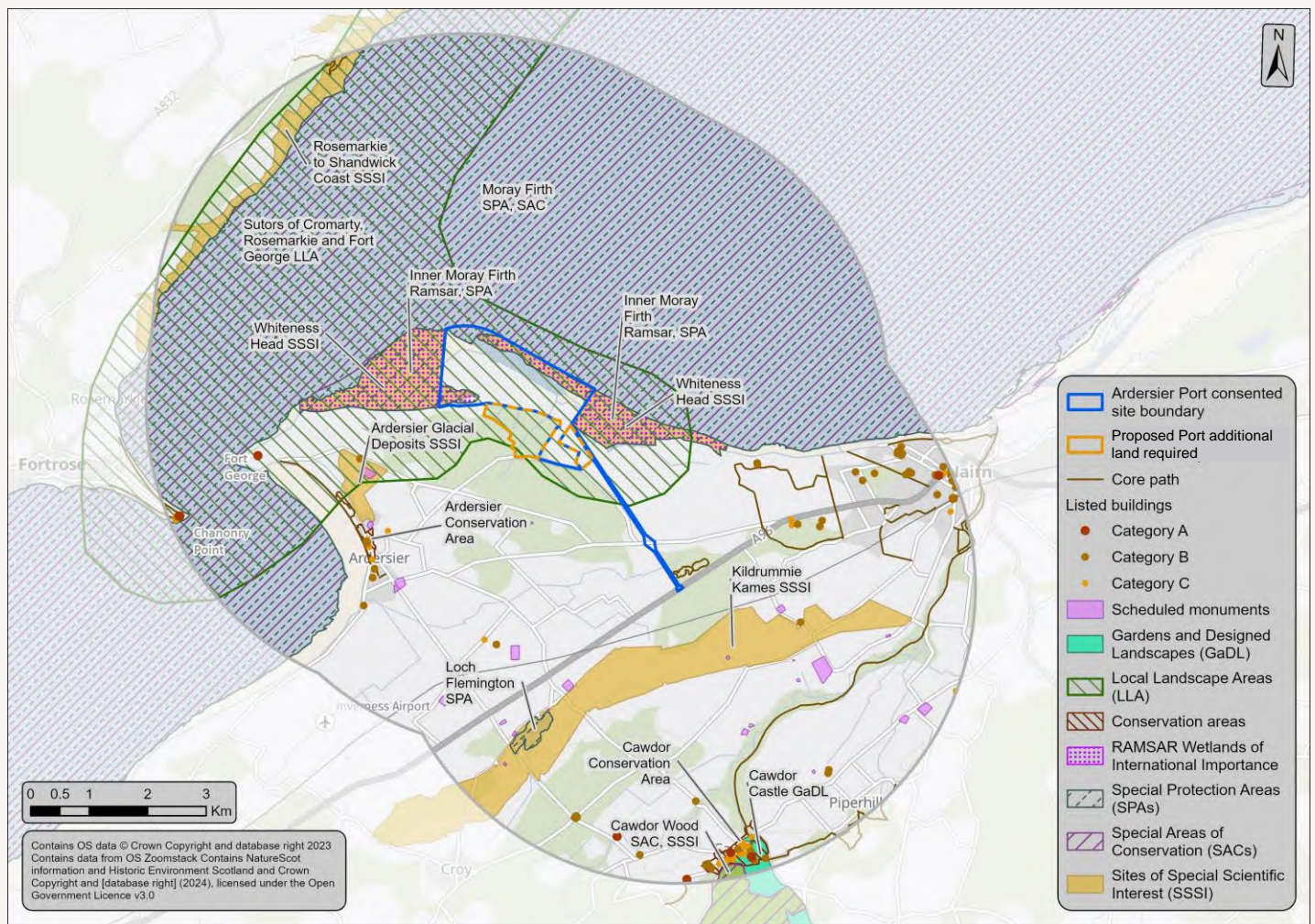
Ardersier Port, located on the Moray Firth, features a rich coastal ecosystem with diverse habitats supporting wildlife, including various bird and mammal species including bottlenose dolphins, seals and harbour porpoise (and others). Whiteness Head is designated as a Site of Special Scientific Interest (SSSI) and is part of the Inner Moray Firth Special Protection Area (SPA) and a RAMSAR site, while the Moray Firth is a Special Area of Conservation (SAC) and the area encompasses the Sutors of Cromarty, Rosemarkie, and Fort George Special Landscape Area (SLA).

The site is bordered by the Moray Firth to the north, Carse of Delnies to the east, Carse Wood to the south, and the sand dunes and tidal sandflats of Whiteness Sands to the west. Fort George's live firing range is to the southwest, and Whiteness Head Spit, which shelters a harbour, is included in the site boundary.

Nearby, there are a few houses and residents, with the village of Ardersier around 3 km to the south and Nairn approximately 6.5 km to the east. The site is visible from the surrounding coastline, although tree cover, and topography provide some screening to the south and west.

Key environmental considerations include the sensitive marine and terrestrial habitats, potential impacts on landscape and cultural heritage, and the need to minimise water environment, air quality, noise, carbon, and transport impacts during construction and operation as shown on **Figure 5** below.

**Figure 5: Key Designations & Environmental Constraints/Considerations**



## 4.2 Detail by Technical Topic Area

Detail on baseline and key features is provided for each technical topic within **Appendix A**. Any specific supporting figures are also included with the technical sections in that Appendix.

## 5.1 EIA Scoping Approach

We have carried out a desk-based review, site visits (where relevant) and drawn upon a significant amount of background information and surveys available for this site to prepare this Scoping Document. For each technical topic we have documented the following aspects, and these are all included in **Appendix A** for your information.

- Baseline and Key Features;
- Likely Impact on the Environment;
- Surveys or Assessments Required;
- Relevant Guidance or Legislation Applicable to Surveys or Assessments; and
- Methodology.

## 5.2 Proposed EIA Scope

Based on our initial appraisal (as described in Appendix A technical topic tables), **Table 2** summarises our suggested scope for the EIA Report for the proposed development and which topic areas could potentially be significant in EIA terms. Topics scoped in would be fully assessed in the EIA Report in accordance with best practice and current legislation and guidance.

**Table 2: EIA Topics**

Topic	Effects	Scoped in or out?	Likely Significant?
Landscape, Seascape and Visual	Changes to landscape character, seascape character and visual amenity.	In	Yes – potentially significant effects could arise because of woodland clearance, an extended site (including lighting), and the presence of taller part-assembled off-shore wind turbines in a visually exposed coastal location within the Sutors of Cromarty, Rosemarkie and Fort George Special Landscape Area. Key considerations will also include cumulative development context.
Transport & Access	Impacts associated with changes to the current transport infrastructure and potential impacts from increased traffic	Out	No – The proposed numbers of workers during construction and operation is no greater than is already consented. Vessel numbers are not predicted to be significantly greater than the previously assessed volume (possible slight increases in vessel traffic are being considered with regard to potential Marine Mammal impacts). The site access new roundabout has been built and a roundabout on the A96 will be constructed as soon as practicable under the existing consent. It is therefore proposed to scope Transport out of the EIA and instead provide an updated version of the Transport Management Plan to support the planning application.
Air Quality	Dust and other emissions during construction and operational phases.	Out	No – There is no predicted increase on the transport or vessel movements consented in 2018. There is the potential for dust emissions during construction, but these can be managed appropriately through mitigation. Therefore, it is proposed that air quality is scoped out of the EIA and instead an update to the dust management plan that is currently in use on site will be submitted with the planning application.
Noise	Increase in noise levels impacting upon sensitive receptors and wildlife.	In	Potentially – assessment required to determine typical levels so that appropriate mitigation can be designed.
Historic Environment	Impacts on historical assets and locations	In	Unlikely – Direct impacts are not expected but setting impacts could be realised on wider sites of interest.

## 5. Potential Effects & Scope

Topic	Effects	Scoped in or out?	Likely Significant?
<b>Population &amp; Human Health</b>	Impacts upon the local community due to construction and operation, potential benefits with regards to employment.	Out	No – the level of employment generated during construction is expected to be similar to the level currently on site and during operation will be refined through the design process. Information on all types of employment will be included within the Project Description. It is not anticipated that the proposed extension will impact community health outcomes, access to healthcare services, and potential exposure to pollutants, with compliance with relevant health and safety regulations on site in accordance with UK Law.
<b>Climate &amp; Resilience</b>	Carbon emissions during the construction and operational phases and consideration of adaptation and resilience	Out	No – Assessing carbon and designing in resilience are very important for any development but particularly for infrastructure developments. Recognising this, Haventus have commissioned a 'Path to Net Zero' assessment, a report that will present data on the carbon emissions associated with the construction and operational aspects of the consented development and the proposed extension. Therefore, it is proposed that a climate and resilience chapter is scoped out of the EIA but that the Path to Net Zero report is submitted to support the planning application. The project description of the EIAR will also have a dedicated section on resilience.
<b>Hydrology &amp; Hydrogeology</b>	Effects of dredging and construction on local water bodies. Increased hard standing potentially increasing flood risk and requiring additional drainage	In	Yes – drainage from the south through and around the site will need to be maintained. Sensitive design with consideration of climate impacts should ensure that all impacts upon the water environment (terrestrial and marine) can be managed appropriately.
<b>Coastal Processes &amp; Geomorphology</b>	Changes to the existing currents and wave action with the extended quay and deeper depth	In	Potentially – Main channel, spit and maintenance dredging already assessed within the 2018 EIA and will see no change. Dredging only within inner harbour in non-dynamic area so no expected change in sedimentation or water circulation patterns out with the harbour are expected.
<b>Geology, Soils and Contaminated Land</b>	Effects due to construction and operation and changes to the current land use with consideration of the historical use of the site.	Out	No – The extension lands have no significant historic industrial or contaminative uses, with natural ground expected. Site investigations will determine most appropriate re-use options for soils excavated. Dredge material suitability will be separately considered within any dredge licence application.
<b>Material Assets and Waste</b>	Construction and operation generated waste could impact upon the local waste facilities and the requirement for construction materials could have an impact upon carbon emissions and net zero.	Out	No – would recommend that an outline Site Waste Management Plan is submitted with the EIA Report to tie the extension into the current waste management practices occurring on the rest of the consented site.
<b>Terrestrial Ecology</b>	Impacts on terrestrial habitats and species.	In	Yes – important to assess all likely impacts and undertake required surveys to feed into the design and the construction phasing and programme. The surveys will also help to understand what enhancements could be valuable when considering mitigation and ensuring a biodiversity positive development.

## 5. Potential Effects & Scope

Topic	Effects	Scoped in or out?	Likely Significant?
<b>Marine Mammals</b>	Impacts on marine habitats and species.	In	Potentially – important to assess all likely impacts and undertake required assessments to feed into the design and the construction phasing and programme. Surveys and observations will also help to understand what enhancements could be valuable for marine mammals when considering mitigation and ensuring a biodiversity positive development.
<b>Heat and Radiation</b>	Effects from any emissions of heat and radiation on local receptors including human health and the environment.	Out	No - The proposed development does not introduce any sources of heat and radiation and therefore has been scoped out based on negligible risk.
<b>Major Hazards &amp; Accidents</b>	Potential risks to human health, environmental degradation, and socio-economic disruption	Out	<p>No - The IEMA publication Major Accidents and Disasters in EIA: A Primer, defines major accidents as an event that threatens immediate or delayed serious environmental effects to human health welfare and/or the environment, while disasters can be man-made, such as terrorism or pollution, or natural such as earthquakes, avalanche or sandstorms.</p> <p>The development does not in itself present a hazard. The only natural hazards that apply to the development (as defined by the above guidance) relate to flooding, storms and potential storm surge. The potential for storm related flooding effects will be considered in the Hydrology section of the EIAR.</p> <p>When considering man-made hazards such as terrorism, sabotage, pollution or fire related hazards, the site operates under both the Port Facility Security Plan approved by the Department of Transport, and the Port Emergency Response Plan.</p> <p>On the basis, we consider that this topic need not be further assessed within the EIAR.</p>
<b>Electric and Magnetic Fields (EMF)</b>	Possible health effects of electric and magnetic fields upon human receptors	Out	No – the proposed development does not impact any receptors as it does not introduce any potential sources of EMF.
<b>Transboundary Effects</b>	Likely significant effects on the environment of another European Economic Area State.	Out	No – the proposed development is an extension to the consented port. It is not anticipated that the extension (or the port) will generate impacts for other countries in the EU. The extension will form part of the strategy to decarbonise and facilitate the development of offshore wind farms and the generation of renewable energy.
<b>Cumulative</b>	Potential for impacts from other projects and Intra cumulative effects where there are multiple effects on the same receptors.	In	Potentially – cumulative effects with the existing consented development are possible and other developments may also result in cumulative effects particularly related to increased shipping. This will be an important part of EIA process required to determine if any additional mitigation is required either as part of the design or during construction or operation.

# APPENDIX A

## TECHNICAL TOPIC TABLES



Click [HERE](#) to go back to the Contents Page



# Landscape & Visual

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## TECHNICAL TOPIC - Landscape, seascape and visual effects

<p><b>1. BASELINE AND KEY FEATURES</b></p> <p>The following baseline information considers a likely study area of 15km radius around the application site boundary (see Landscape Figure 1).</p> <p>The site is located in a prominent coastal position at the centre of the Sutors of Cromarty, Rosemarkie and Fort George Local Landscape Area (previously referred to as a locally designated Special Landscape Area) (see Landscape Figure 1).</p> <p>Surrounding landscape character is identified by NatureScot as comprising several different landscape types (see Landscape Figure 1). The site comprises areas of the ‘Beaches, Dunes and Links’ and ‘Coastal Farmlands’ landscape types. Surrounding areas of landscape comprise ‘Rolling Farmland and Woodland’, ‘Cliffs and Rocky Coasts’ and ‘Farmed and Forested Slopes’ landscape types. A substantial area of land to the south of the site comprises plantations of Scots Pine which have reached a height of approximately 15m providing visual enclosure in this low lying landscape. Generally, the surrounding landscape is substantially undeveloped and visually open and displays medium to high sensitivity to the type of development proposed.</p> <p>Surrounding seascape character is identified by NatureScot as the Moray Firth seascape unit (Area 6) which principally comprises seascape Type 4: ‘Outer Firths’ but also features areas of Type 11: ‘Less Developed Inner Firths’ and a small area of Type 5: ‘Developed Inner Firths’. Specifically in the context of potential wind farm development, NatureScot has identified this seascape unit as being of medium sensitivity.</p> <p>The topographical context within 5 km is illustrated by Landscape Figure 2. A preliminary Zone of Theoretical Visibility (ZTV) to 15 km is provided as Landscape Figure 3. The surrounding area contains a variety of visual receptors. Notable sensitive locations include beachfront areas at Rosemarkie to the west and Nairn to the east, and historical locations which attract visitors including Chanonry Point and Fort George. Scattered residential locations lie nearby to the south of the site, though many residential properties are screened from the site by intervening plantations of scots pine woodland. The waterfront village of Ardersier lies approximately 4 km to the south west but intervening topography reduces the potential for views from this closest settlement. The A96 and mainline railway also pass approximately 4 km to the south east of the site but with limited opportunities for open views towards the site to the north west.</p>
<p><b>2. LIKELY IMPACT ON THE ENVIRONMENT</b></p> <p>Potentially significant effects could arise as a result of woodland clearance, an extended site (including lighting), and the presence of taller part-assembled off-shore wind turbines in a visually exposed coastal location within the Sutors of Cromarty, Rosemarkie and Fort George Local Landscape Area. There is the potential for visual effects on nearby beachfronts such as at Rosemarkie and Nairn (although it is noted that effects are and will arise from the previously consented less extensive port facility). Key considerations will also include the cumulative development context.</p>
<p><b>3. SURVEYS OR ASSESSMENTS REQUIRED</b></p> <p>The landscape, seascape and visual impact assessment will draw on a combination of desk and site studies. The visual assessment will use representative viewpoints to identify likely levels of visual effect. Approximately 20 candidate representative viewpoints have been identified within the suggested 15 km radius study area and panoramic photographs of each location would be secured (either winter or summer photographs are likely to be suitable in this location and photography in both seasons is not considered necessary). The schedule of proposed representative viewpoints is included on Landscape Figure 3. <u>The Highland Council’s agreement to these proposed viewpoints is sought.</u></p>

Illustrative wirelines of the proposed development, including the off shore wind farm components likely to be temporarily present on site, will be produced for key selected views. Two preliminary images which provide an indication of the location of the site and what a 215m off shore turbine component could look like in context are provided as Landscape Figures 4 and 5. It is not considered necessary to undertake viewpoint photography from vessels on the sea nor during hours of darkness.

#### 4. RELEVANT GUIDANCE OR LEGISLATION APPLICABLE TO SURVEYS OR ASSESSMENTS

The approach to the assessment will be based on the third edition of the Guidelines for Landscape and Visual Impact Assessment published by the Landscape Institute and Institute of Environmental Management and Assessment (GLVIA3). Relevant guidance published by The Highland Council would also be referenced. The latter would include inferring relevant aspects of guidance published by The Highland Council regarding their preferred approach to the assessment and production of visualisations for wind farm development (the proposed development does not comprise a wind farm development but shares some similar characteristics).

#### 5. METHODOLOGY

See above regarding the identification and agreement of representative viewpoints.

A Zone of Theoretical Visibility (ZTV) will be produced using 'surface data' which takes account of the screening effect of land cover such as built up areas and woodland. The ZTV would be run using a sequence of nominal heights to reflect the likely extent of visibility of components of different heights that might be temporarily present. A preliminary ZTV has been included with this scoping report.

The assessment of each representative viewpoint would include consideration of the likely appearance of the site during hours of darkness. This would include consideration of views from less populated areas across the Moray Firth from the north.

## FIGURES

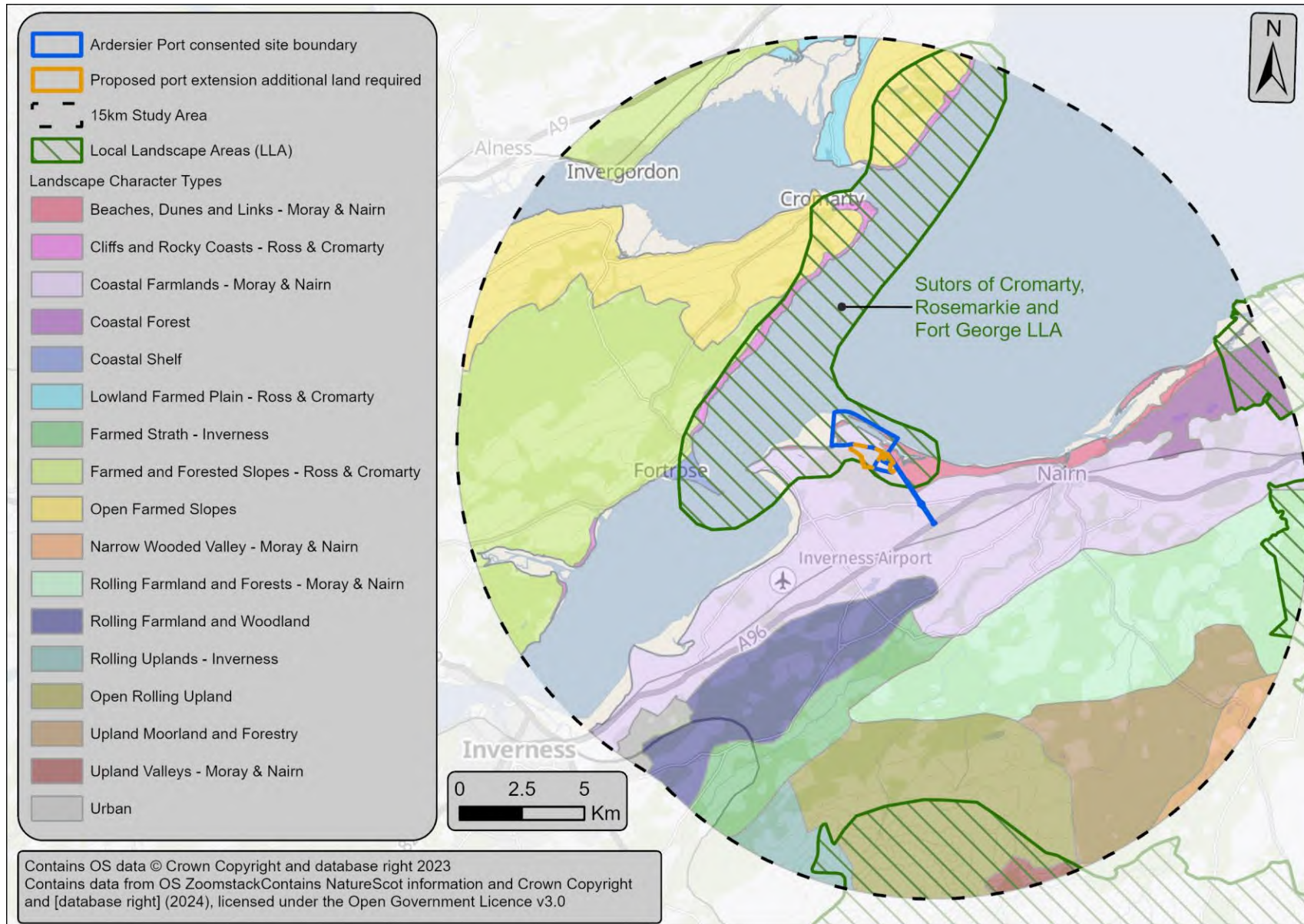
Landscape Figure 1. Landscape context

Landscape Figure 2. Topographical context

Landscape Figure 3. ZTV and proposed representative viewpoint locations.

Landscape Figure 4 & 5. Preliminary visualisations for two key views

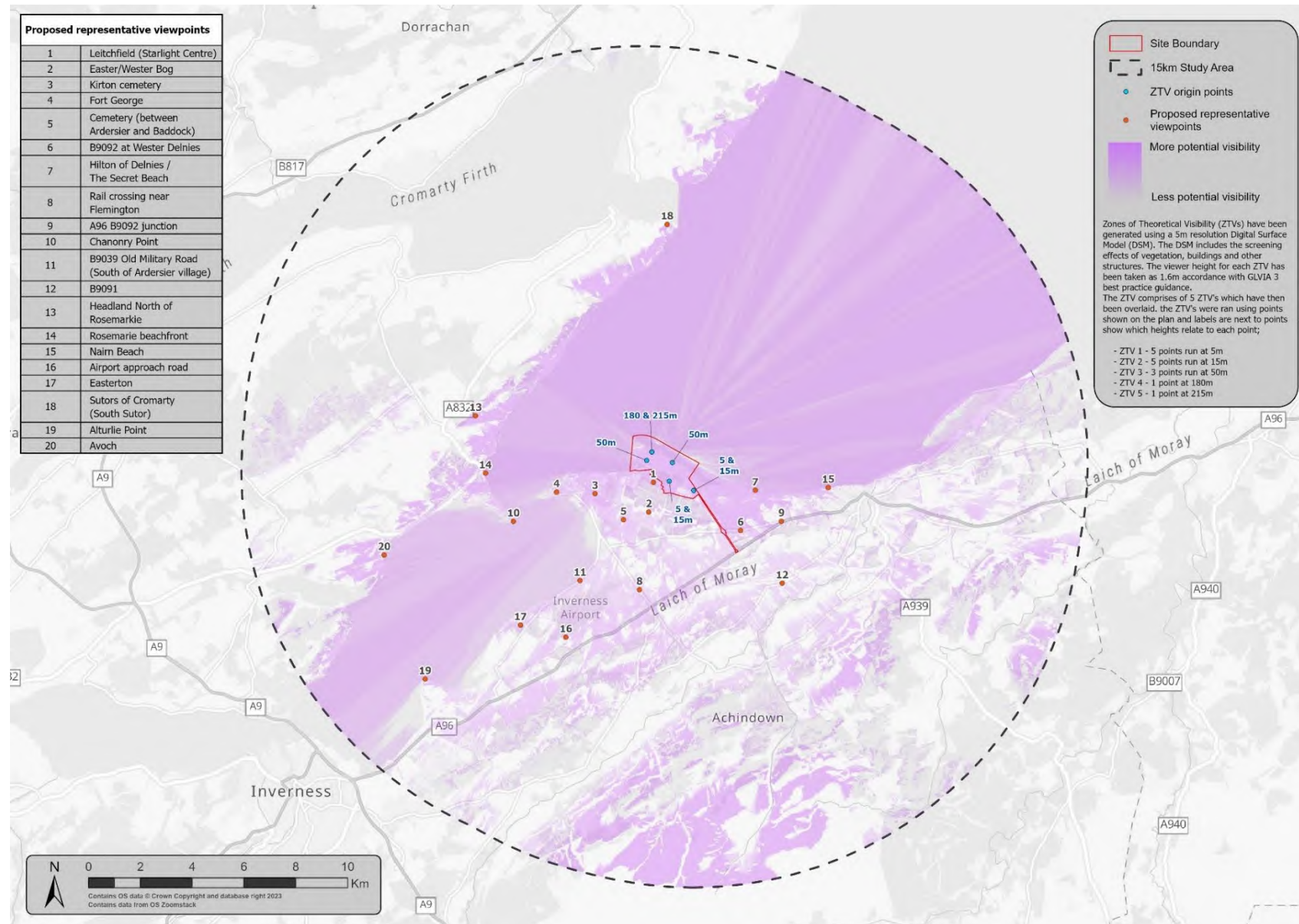
Landscape Figure 1. Landscape context



Landscape Figure 2. Topographical context



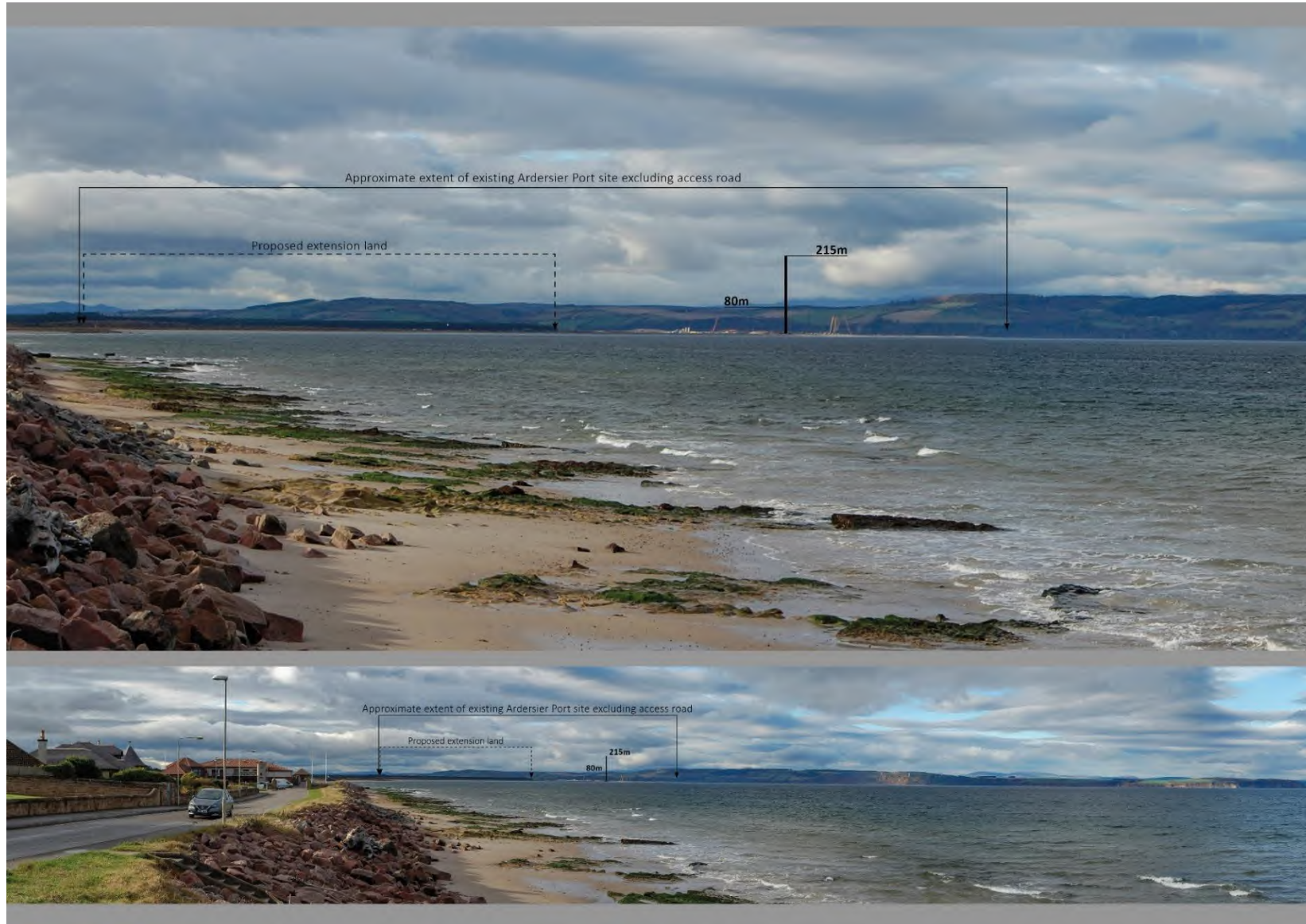
Landscape Figure 3. ZTV and proposed representative viewpoint locations.



Landscape Figure 4 Preliminary visualisations for key views



Landscape Figure 5. Preliminary visualisations for two key views



# Transport & Access

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## TECHNICAL TOPIC - Transport and Access

### 1. BASELINE AND KEY FEATURES

#### Previous Application:

The PPIP renewed in 2019 was approved with conditions related directly and indirectly to Transport.

Junction upgrades were also required as part of Condition 10 in order to minimise adverse effects on the A96 trunk road. This included potential upgrades to the junction of the site with the A96 trunk road and B9092 to new site access roundabouts. The junction upgrade (roundabout) on the B9092 has already been constructed, and the roundabout on the A96 is committed to and will be built as soon as final approval from Transport Scotland is received.

A Travel Plan was also required for Condition 12 in order to minimise reliance on private vehicles for access to employment at the site. The Travel Plan was required to include provision for the improvement of local bus and monitoring to ensure the effectiveness of the proposed measures. The Travel Plan completed by Systra submitted in 2019 included measures such as the provision of local cycle route information and on-site facilities and incentives, access to the Cycle to Work scheme. Improvements to public transport were included, such as the extension and increased frequency of local buses, optimisation of shift patterns to link to public transport timetables, dedicated bus services from principle settlements. Other measures include access to car sharing either through a private on-site matching system or by using a dedicated provider.

#### Key Features

The key roads providing vehicle access to the development site are the private local road proposed to be the site access, the B9092, and the road connecting the A96 to the site. The location of the existing site in relation to the surrounding road network is shown in **Figure 1**.



**Figure 1 – Existing site location in relation to the surrounding road network**

The B9092 runs south of the site and is single carriageway rural route subject to a 60mph speed limit. It is approximately 5m wide and is unlit. Footways are currently unavailable. The B9092 accommodates bus routes connecting surrounding villages and towns. To the south east of the site an unclassified road connects the B9092 to the A96(T) via a three-arm priority junction, providing a route between Ardersier and Nairn. A crossroads was formed with the unclassified road where the site is accessed and a roundabout has recently been built at the site access junction with the B9092 to service the consented Ardersier Port suitable to accommodate all expected traffic.

The A96(T) provides a strategic link between Aberdeen and Inverness via Nairn. The road supports several priority junctions and roundabouts giving access to locations such as Ardersier and Inverness Airport. The A96 is subject to the national speed limit of 60mph and runs south of the proposed development.

In the 2018 EIA, it was projected that there would be 2500 staff on site for the operational phase of the port. The projected number of staff including the port extension is still predicted to be between 2500-3000 people. With regards to construction, the 2018 consent was based upon around 400 staff for construction, and for the extension this would be a similar level of between 350-400 so no change or potentially a reduction on the volume of vehicles currently accessing the site currently.

## 2. LIKELY IMPACT ON THE ENVIRONMENT

- Potential increase in traffic - The proposed numbers of workers during construction and operation is no greater than is already consented, therefore it is not predicted that the proposed extension will generate increased traffic volumes on the road network;
- Impacts upon key junctions - With no predicted increase in traffic volumes from what is already consented and with junction upgrades either planned or currently being constructed as per the existing consent, there are no additional significant impacts predicted as a direct result of the proposed extension.
- For general operation of the port no significant increase in vessel movements is expected, although some small peaks may occur.

## 3. SURVEYS OR ASSESSMENTS REQUIRED

No surveys required.

## 4. RELEVANT GUIDANCE OR LEGISLATION APPLICABLE TO SURVEYS OR ASSESSMENTS

- Department for Transport (2007). Manual for Streets.
- National Highways (2020). Design Manual for Roads and Bridges LA104 Environmental Assessment and Monitoring. Retrieved from <https://www.standardsforhighways.co.uk/dmrb/search/0f6e0b6a-d08e-4673-8691-cab564d4a60a>
- Institute of Environmental Assessment (2023). Environmental Assessment of Traffic and Movement.

## 5. METHODOLOGY

The EART guidance recommends two rules to be considered when determining whether the impact of traffic should be assessed on a road link:

- Rule 1: Include road links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%); and
- Rule 2: Include road links of high sensitivity where traffic flows have increased by 10% or more.

The 30% threshold is based upon research and experience of the environmental effects of traffic, with less than a 30% increase generally resulting in imperceptible changes in the environmental effects of traffic. The guidance considers that projected changes in total traffic flow of less than 10% creates no discernible environmental effect. Where the thresholds are exceeded, issues including severance, driver delay, pedestrian amenity, fear and intimidation, accidents and road safety are assessed for their magnitude of change.

In the 2018 EIA, it was projected that there would be 2500 staff on site for the operational phase of the port. The projected number of staff including the port extension is still predicted to be between 2500-3000 people. With regards to construction, the 2018 consent was based upon around 400 staff for construction, and for the extension this would be a similar level of between 350-400 so no change or potentially a reduction on the volume of vehicles currently accessing the site currently.

With regards to vessel movements, the 2018 consent stated 340 vessel calls. With the extension in place, it is predicted that the total volume for the port will be between 250-350 vessel calls per year, again no significant changes to what was previously assessed. There could, in the short term, potentially be 400 vessel calls per year at peak (initial operations are expected be similar in number to the 2018 predictions).

The proposed volumes of additional traffic generated by the proposed extension are therefore predicted to fall under the stated thresholds.

With no significant increases on what has already been consented, it is proposed that transport is scoped out of the EIA but that there is an update to the Travel Plan that is currently in operation at the site. This revised Travel Plan would be submitted with the planning application.

# Air Quality

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## TECHNICAL TOPIC - Air Quality

### 1. BASELINE AND KEY FEATURES

#### Previous Application:

The PPIP renewed in 2019 was approved with conditions related directly and indirectly to air quality. Condition 6 specifically requested that a Pollution Prevention Plan and a Dust Management Plan were prepared as part of a Construction Environmental Management Document. It stated that this should include a Schedule of Mitigation detailing all mitigation measures agreed and approved by relevant agencies. It is expected that similar condition will be required for the port expansion. This will help to protect any local human receptors and the surrounding ecological receptors from the adverse impacts of fugitive construction dust.

Junction upgrades were also required as part of Condition 10 in order to minimise adverse effects on the A96 trunk road. This includes potential upgrades to the junction of the site with the A96 trunk road and B9092 to new site access roundabouts. The B9092 roundabout has now been constructed and the roundabout on the A96 will be constructed as soon as practicable (following approval from Transport Scotland)

A Travel Plan was also required for Condition 12 in order to minimise reliance on private vehicles for access to employment at the site. The Travel Plan was required to include provision for the improvement of local bus and monitoring to ensure the effectiveness of the proposed measures. The Travel Plan completed by Systra submitted in 2019 included measures such as the provision of local cycle route information and on-site facilities and incentives, access to the Cycle to Work scheme. Improvements to public transport were included, such as the extension and increased frequency of local buses, optimisation of shift patterns to link to public transport timetables, dedicated bus services from principle settlements. Other measures include access to car sharing either through a private on-site matching system or by using a dedicated provider. It is proposed that for the extension, this Travel Plan is reviewed and updated and will be submitted to support the planning application. Overall all these measures can have a beneficial impact on local air quality through reduced use of low-occupancy private vehicles.

#### Baseline Conditions:

The area is characterised by its coastal, rural setting, with scattered residential properties within the area and adjacent to roads that are likely to be used by construction and/or operational traffic associated with the Proposed Development.

Highland Council does not undertake any ambient air quality monitoring in this area and Ardersier is not identified by the Highland Council as an area of concern for air quality within the 2024 Air Quality Annual Progress Report.

Maximum annual mean background concentrations of air pollutants that are most relevant to activities associated with the ports construction and operation, based on a review of data published by Air Quality in Scotland (<https://www.scottishairquality.scot>) and the Department for Environment Food and Rural Affairs (Defra) for the 1 km x 1 km grid squares encompassing the application site, are provided below:

- Nitrogen dioxide, NO<sub>2</sub> – 1.9 µg/m<sup>3</sup> (annual mean objective 40 µg/m<sup>3</sup>)
- Oxides of nitrogen, NO<sub>x</sub> – 2.6 µg/m<sup>3</sup> (annual mean objective 30 µg/m<sup>3</sup>)
- Particulate matter with a mean aerodynamic diameter of 10 µm or below, PM<sub>10</sub> – 6.0 µg/m<sup>3</sup> (annual mean objective 18 µg/m<sup>3</sup>)

- Particulate matter with a mean aerodynamic diameter of 2.5 µm or below, PM<sub>2.5</sub> – 3.5 µg/m<sup>3</sup> (annual mean objective 10 µg/m<sup>3</sup>)

The above concentrations are demonstrably below the respective national air quality objectives for these pollutants.

There is an area designated as Ancient Woodland, Carse Wood, directly adjacent to the south of the application site as shown in Figure 5 (in the main Scoping Report), with the Inner Moray Firth and Moray Firth Special Protection Areas (SPA) and Wetlands of International Importance (RAMSAR) to the north and west, and the Whiteness Head Site of Special Scientific Interest (SSSI) to the east and west as shown on Figure 5.

Ancient Woodland areas are likely to be susceptible to changes in rates of nutrient nitrogen (N) deposition. The Whiteness Head SSSI includes saltmarsh habitats which can also be sensitive to changes in rates of N deposition.

The Inner Moray and Moray Firth SAC/RAMSAR sites are highly tidal and any nutrients deposited on the waters' surface are likely to be rapidly diluted / "washed away". However, inter-tidal, muddy, sandy and saltmarsh areas also fall within these designations and can be sensitive to changes in rates of N deposition. The sensitivity of these sites to dust deposition is unknown at this stage and will be confirmed through consultation with the relevant agencies as part of the EIA.

Maximum annual mean concentrations or rates of deposition for pollutants related to the above ecological receptors were sourced from the Air Pollution Information System (APIS; <https://www.apis.ac.uk/>) based on a three-year average (2020-2022), as presented below:

- Annual mean concentration for ammonia, NH<sub>3</sub> – 0.44 µg/m<sup>3</sup>
- Annual nitrogen deposition rate – 8.75 kgN/ha/yr (for long vegetation) and 5.29 kg N/ha/yr (for short vegetation)
- Acid Deposition – 0.67 keq/ha/yr (long vegetation) and 0.39 keq/ha/yr (short vegetation)
- Annual mean concentration for sulphur dioxide, SO<sub>2</sub> – 0.34 µg/m<sup>3</sup>

The respective critical levels and critical loads for the aforementioned designated sites are as follows:

- Inner Moray Firth:
  - Annual mean NH<sub>3</sub> critical level = 1 µg/m<sup>3</sup> (lichens and bryophytes) or 3 µg/m<sup>3</sup> (higher plants)
  - Annual N deposition rate lower critical load = 10 kgN/ha/yr
- Whiteness Head:
  - Sand dunes
    - Annual mean NH<sub>3</sub> critical level = 1 µg/m<sup>3</sup> (lichens and bryophytes) or 3 µg/m<sup>3</sup> (higher plants)
    - Annual N deposition rate lower critical load = 5 kgN/ha/yr
    - Annual acid deposition rate nitrogen minimum critical load = 1.035 keq/ha/yr
  - Saltmarsh

- Annual mean NH<sub>3</sub> critical level = 1 µg/m<sup>3</sup> (lichens and bryophytes) or 3 µg/m<sup>3</sup> (higher plants)
- Annual N deposition rate lower critical load = 10 kgN/ha/yr

- Case Wood Ancient Woodland:

- Annual mean NH<sub>3</sub> critical level = 1 µg/m<sup>3</sup> (lichens and bryophytes) or 3 µg/m<sup>3</sup> (higher plants)
- Annual N deposition rate lower critical load (upland oak woodland) 10 kgN/ha/yr
- Annual acid deposition rate nitrogen minimum critical load (upland oak woodland) = 0.285 keq/ha/yr

Rates of nutrient nitrogen deposition are not exceeded at any site except for Whiteness Head where the critical load for sand dunes of 5 kgN/ha/yr is already exceeded. Concentrations of ammonia are all below 1 µg/m<sup>3</sup>. Rates of acid deposition are potentially already exceeded at Carse Wood ancient woodland provisional on the features identified as being present although this area is up prevailing wind.

There are human receptors at the Starlight Centre of Excellence wellness and well-being centre that may be subject to the effects of fugitive construction dust and some individual residential properties located close to the woodland. There are also additional human residential receptors located alongside the B9092 and A96 which may be subject to the effects of emissions from construction vehicles using public roads.

## 2. LIKELY IMPACT ON THE ENVIRONMENT

The Proposed Development has the potential to impact local air quality during both the construction and operational phases.

During the construction phase, emissions sources are likely to comprise:

- Fugitive dust from earthworks and construction activities
- Exhaust emissions (NO<sub>x</sub>, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>) from construction plant and equipment, including dredgers and shipping, in addition to construction traffic on local roads.

Fugitive dust emissions from construction activities will be temporary and intermittent in nature, but in the absence of mitigation will have the potential to impact sensitive land, properties within 250 m and/or ecological receptors within 50 m of the working site boundaries. These distances are stated with reference to the Institute of Air Quality Management (IAQM) guidance on assessing the risk of construction dust impacts.

The IAQM guidance also states that, with the application of appropriate dust mitigation measures during the construction phase, the residual effect on air quality should be negligible, resulting in no significant effect.

Given the sparsity of sensitive properties within proximity to the application site, it is proposed that a construction dust risk assessment will be completed with a focus on potential impacts at the sensitive ecological receptors. Screening has shown that there are no receptors within screening distances of the quay works. A construction dust risk assessment will be appended to the draft Construction Environmental Management Plan (CEMP) to ensure the appropriate level of dust mitigation is applied to construction activities.

Given the scale and nature of the Proposed Development, the existing good baseline air quality and the fact that it is proposed that the volume of traffic

during construction and operational phases will not significantly increase over that which was previously consented, it is concluded that exhaust emissions from traffic movements including construction vehicle movements, will not result in a material impact on local air quality. Similarly, emissions from on-site plant and equipment will be temporary and intermittent, thus will not result in a material impact on local air quality at human or ecological receptors. As such, impacts on local air quality associated with exhaust emissions from construction plant, equipment, vessels and vehicles is proposed to be scoped out of the EIA.

The draft CEMP will also include measures to promote the use of low emission plant and construction vehicles that meet appropriate emissions standards.

Dredging and the subsequent storage of dredged material has the potential to create dust emissions (depending on storage methodology) and (depending on material) odours where human receptors are present. Due to both the temporary nature of dredging associated with construction, and the sparsity of human receptors in the vicinity of the Proposed Development, odour impacts are proposed to be scoped out of the EIA. The dredging that will generate the material for the proposed extension is already consented and is being completed currently using the existing dust management plan. On that basis, impacts from dust emissions during dredging do not require any further assessment.

There can be impacts from shipping emissions upon local air quality. With regards to vessel movements, the 2018 consent stated 340 vessel calls. With the extension in place, it is predicted that the total vessel movements each year for the port will normally be between 250-350 vessel calls per year not a significant change to what was previously assessed and consented. There could, in the short term, potentially be 400 vessel calls per year at peak (initial operations are expected to be similar in number to the 2018 predictions).

There are not expected to be any sources of emissions to air that will be subject to an Environmental Permit.

### 3. SURVEYS OR ASSESSMENTS REQUIRED

No air quality surveys will be required as part of the EIA, given that the assessment of air quality impacts are proposed to be scoped out of the EIA.

Notwithstanding, an assessment of construction dust risk will be completed and appended to the draft CEMP for the Proposed Development to ensure the appropriate level of dust mitigation is applied during the construction phase. There are currently two dust monitors operating for the current site construction and the data from these will be reviewed and used to inform the construction dust risk assessment.

### 4. RELEVANT GUIDANCE OR LEGISLATION APPLICABLE TO SURVEYS OR ASSESSMENTS

- The Air Quality (Scotland) Regulations 2000
- The Air Quality (Scotland) Amendment Regulations 2002
- The Air Quality Standards (Scotland) Regulations 2010
- The Air Quality (Scotland) Amendment Regulations 2016
- Environment Act 1995
- Environmental Protection Act 1990

- National Planning Policy Framework 4
- Cleaner Air for Scotland 2 : Towards a Better Place for Everyone
- Environmental Protection UK/Institute of Air Quality Management – Guidance on Land Use Planning & Development Control: Planning for Air Quality
- Institute of Air Quality Management – Guidance on the assessment of dust from demolition and construction
- Defra and the Devolved Authorities – Local Air Quality Technical Guidance TG(22)
- Scottish Government – Local Air Quality Management: Policy Guidance PG (S) (24)

## 5. METHODOLOGY

We would propose that air quality would be scoped out of the EIA.

A construction dust risk assessment will however be completed to determine the appropriate construction phase dust mitigation measures and this will be included in the draft CEMP with an update to the existing dust management plan.

# Noise

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## TECHNICAL TOPIC - Noise

### 1. BASELINE AND KEY FEATURES

The proposed development is situated in a rural location, sparsely populated with individual, and small clusters of, dwellings. A desktop survey has been undertaken to identify the location of the nearest Noise Sensitive Receptors (NSRs), and these are detailed in Noise Figure 1. The NSRs comprise a mix of human and ecological receptors.

Human receptors, which have a high level of sensitivity, include a number of residential properties, the closest of which are approximately 150 m to the south of the development site. A small number of medium sensitivity receptors have also been identified, including a well-being & wellness centre, also approximately 150 m south of the site, Nairn Golf Course to the east and Fort George to the west.

Ecological receptors include winter wader roosts, some of which are located within the development site, and a seal haul out area.

### 2. LIKELY IMPACT ON THE ENVIRONMENT

The proposed development will introduce new noise sources into the area in the form of construction plant and activities during the construction phase.

During the operational phase, noise sources will comprise a mix of fixed and mobile plant, the majority of which will be located externally. Mobile noise sources could include cranes, SPMT transporters, vessels, etc. Fixed sources could include generators, manufacturing plant (located internally), compressors for hand tools and similar.

The assessment of environmental noise has been scoped in as adverse noise impacts could occur for both residential receptors and ecological receptors. The likelihood for adverse impacts, however, are low, as best practice techniques can be employed during the construction phase, and mitigation measures can be embedded within the design to control operational noise.

Construction noise effects would be temporary in nature, although the construction period is anticipated to last up to 12 months, so noise effects do have the potential to be significant if not mitigated.

Operational noise effects would be permanent in nature and so noise control elements may need to be embedded within the design of the development, and noise management practices employed, to reduce noise level output to acceptable levels.

### 3. SURVEYS OR ASSESSMENTS REQUIRED

- Baseline sound level survey (1 – 2 weeks) to determine existing ambient noise levels for the construction noise assessment. Measurements to be taken within or close to the amenity areas of the closest identified residential NSRs.
- Baseline sound level survey (1 – 2 weeks) to determine existing background sound levels for the operational noise assessment. Measurements to be taken within or close to the amenity areas of the closest identified residential NSRs.
- Attended spot measurements of 1 hour minimum duration will also be taken in sensitive areas, to help further develop a picture of the local soundscape.

#### 4. RELEVANT GUIDANCE OR LEGISLATION APPLICABLE TO SURVEYS OR ASSESSMENTS

- Overarching guidance for planning is included in *PAN 1/2011 Planning and Noise* and the accompanying *TAN 1/2011 Assessment of Noise*.
- For the construction noise assessment: *BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1 Noise*.
- For the operational noise assessment: *BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound*.

#### 5. METHODOLOGY

Construction noise will be assessed with due regard to the guidance presented in BS 5228:2009+A1:2014, which is the approved Code of Practice under the Control of Pollution Act 1974. Operational noise will be assessed in accordance with BS 4142: 2014+A1:2019 for residential receptors, and fixed noise level limits will be determined from relevant sector specific guidance for the medium sensitivity receptors. Noise propagation calculations will be undertaken in accordance with ISO 9613-2:2024.

The baseline data will be used to determine ambient sound levels in the area, which will be used to set appropriate noise thresholds for the construction phase of the development. The baseline sound levels will also be analysed in accordance with BS 4142, to establish a representative background sound level for each residential NML, which will then inform the operational noise assessment.

It is anticipated that monitoring will be undertaken at four Noise Monitoring Locations (NMLs) representative of the nearest high sensitivity NSRs, and indicative NMLs are shown on Noise Figure 1. The exact locations will be determined dependant on permissions to access land and based on subjective observations made during the site visits, for example, to avoid existing noise sources, such as water courses.

Continuous unattended monitoring will be conducted for a period of 1 to 2 weeks and simultaneous wind speed and rainfall monitoring will be carried out on the development site. In addition, short term attended measurements will be undertaken in the areas of the bird roosts and similar sensitive areas.

Modelling will be undertaken for construction activities, with noise levels estimated on a month by month basis against an indicative construction timetable. Construction noise levels will be compared to threshold levels presented in BS 5228 and consider both the absolute level and the duration of exposure for human receptors. Noise contour plots will be produced, which will present predicted noise levels for areas of ecological receptors (bird roosts and seal haul out areas), that can be used to inform the ecological EIAR chapters.












Noise propagation modelling will also be undertaken for typical operations and the predicted noise levels compared to the background sound levels, to determine the likelihood for adverse impacts on residential receptors, in accordance with BS 4142.

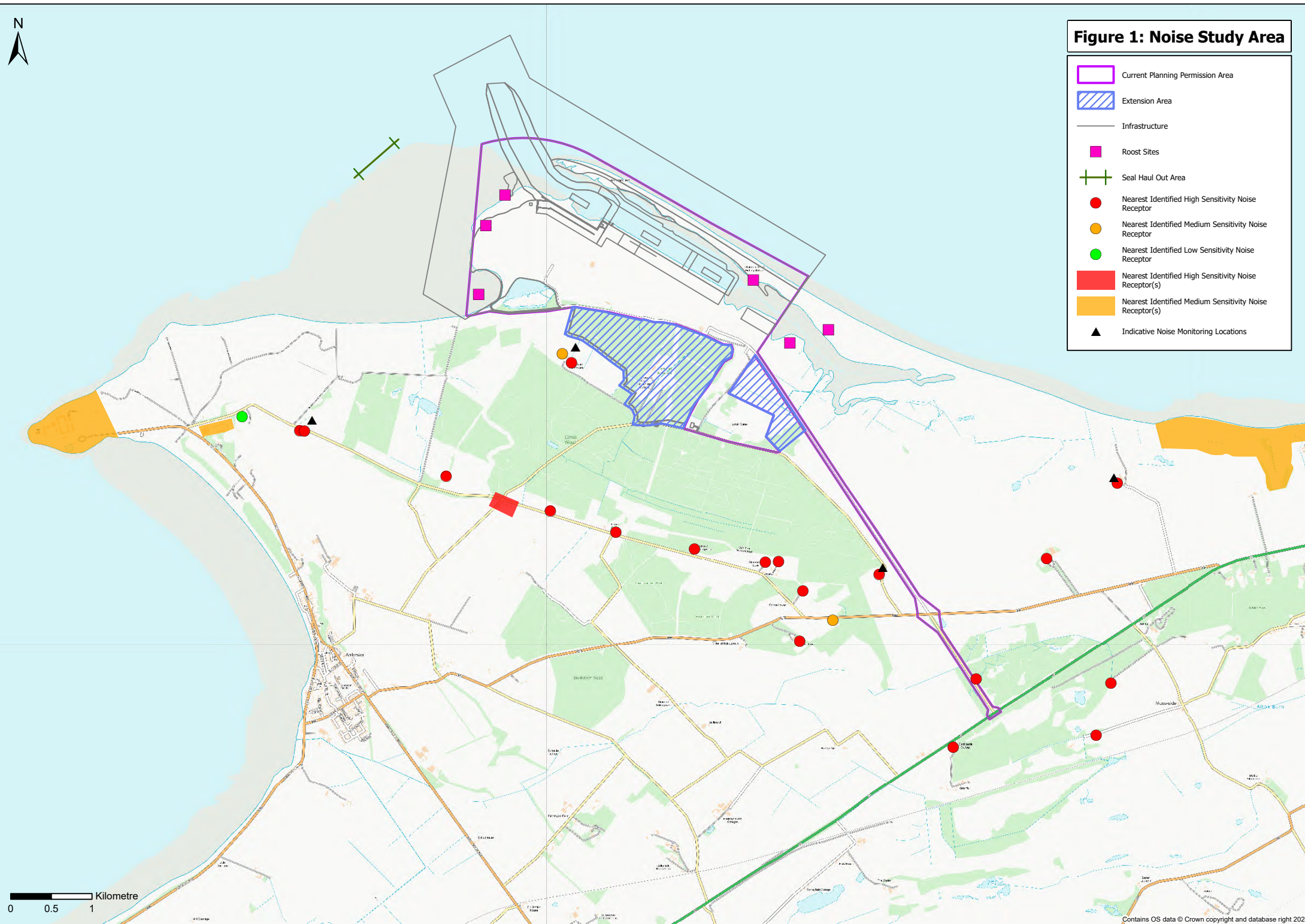
## FIGURES

Noise Figure 1. Noise Sensitive Receptors (NSRs)



**Figure 1: Noise Study Area**

-  Current Planning Permission Area
-  Extension Area
-  Infrastructure
-  Roost Sites
-  Seal Haul Out Area
-  Nearest Identified High Sensitivity Noise Receptor
-  Nearest Identified Medium Sensitivity Noise Receptor
-  Nearest Identified Low Sensitivity Noise Receptor
-  Nearest Identified High Sensitivity Noise Receptor(s)
-  Nearest Identified Medium Sensitivity Noise Receptor(s)
-  Indicative Noise Monitoring Locations



0 0.5 1 Kilometre

# Historic Environment

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