



GRAHAM + SIBBALD

Volume 1: Environmental Impact Assessment Report – Non-Technical Summary

Former Fabrication Yard
Ardersier

On behalf of **Ardersier Port Ltd**

Date of Report: **September 2018**
Our Ref: KMcG/2017/11/0234





1. Introduction

In January 2014, planning permission in principle, marine licences and a Harbour Revision Order were granted for the establishment of a port and port related uses for energy related services at the Former Fabrication Yard, Ardersier (the Proposed Development). The previous owners of the site went into Administration in October 2015 and the site was acquired by Ardersier Port Ltd (the Applicant) in July 2016.

An application has been submitted by Ardersier Port Ltd to renew the existing planning permission in principle and for marine licences for the establishment of a port.

An Environmental Impact Assessment Report (EIA Report) has been prepared by the Applicant to assist The Highland Council and Marine Scotland evaluate the Proposed Development.

This Non-Technical Summary has been prepared to provide a summary of the findings contained within the EIA Report and any significant effects identified.

2. Purpose of the Environmental Impact Assessment

The Proposed Development site extends to 307 hectares. Due to the scale of the site and development proposed, an Environmental Impact Assessment (EIA) was required under European and UK legislation.

The purpose of an EIA is to identify and assess the likely significant effects of the Proposed Development on the environment.

An EIA Report has been prepared to present a description of the Proposed Development and the findings of the assessment work undertaken. The EIA Report includes the identification and assessment of significant environmental effects resulting from the Proposed Development and proposed methods to mitigate the identified effects.

As part of the EIA, environmental effects were assessed by comparing the existing situation (baseline conditions) with the conditions that could potentially occur with the Proposed Development in place. This comparison was undertaken for both the construction and operational stages of the Proposed Development.

3. Viewing the EIA Report

The full EIA Report and associated Technical Appendices will be available to view and download on The Highland Council website via the following link: <https://wam.highland.gov.uk/wam/>.

An electronic copy of the EIA Report can be obtained by emailing planning@g-s.co.uk.

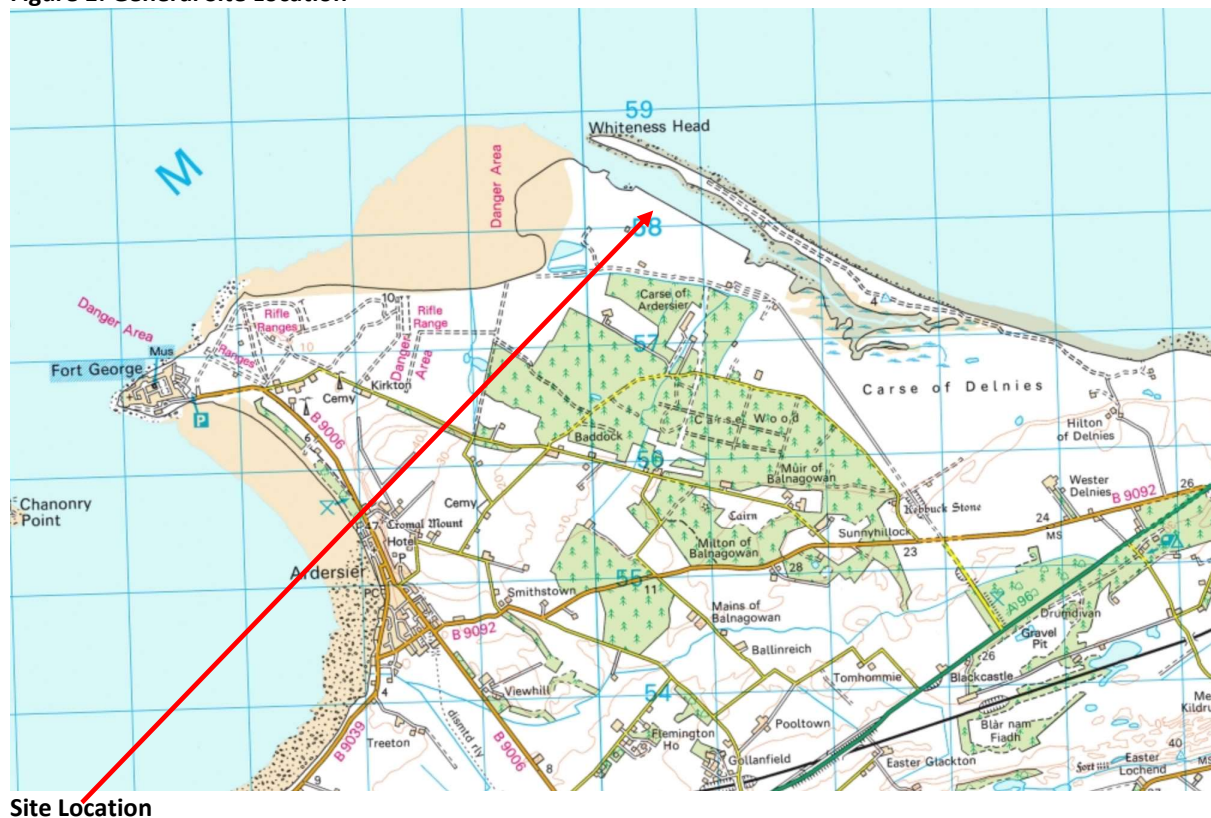
A printed hard copy of the EIA Report can be obtained from Graham + Sibbald on request. There will be a charge of £150+VAT associated with the provision of a hard copy to cover staff and printing costs.



4. Site Location and Description of Development

The Proposed Development site is located approximately 7.5km to the west of Nairn, 18km northeast of Inverness and 3km northeast of the village of Ardersier. The map below shows the site location in the context of the surrounding area.

Figure 1: General Site Location

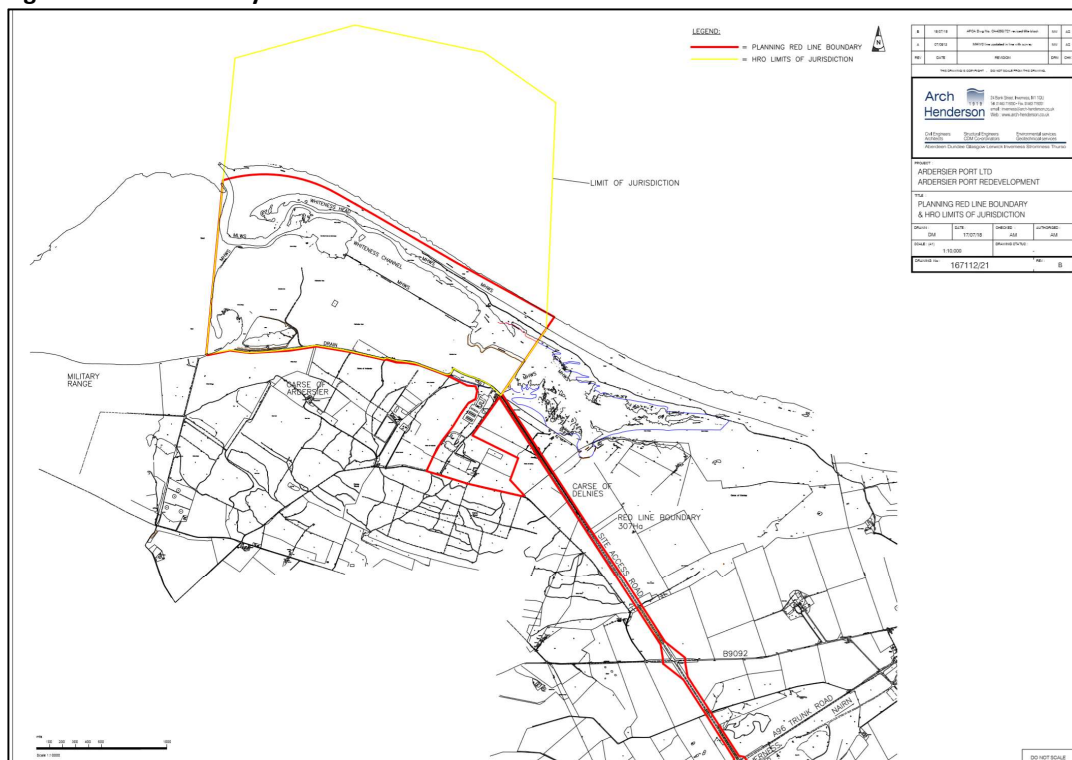


The site extends to 307 hectares of previously developed land. The site was formerly occupied by the McDermott Fabrication Yard for the construction of off-shore platforms for the oil and gas industry. The Fabrication Yard closed in 2001 and site has been decommissioned and remediated.

The extent of the site boundary is shown in the plan below.



Figure 2: Site Boundary

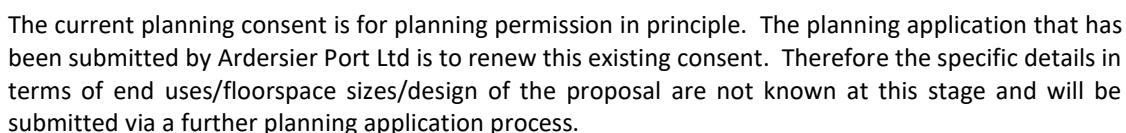


The Proposed Development is for the establishment of a port and port related services for energy related uses. This will include including marine channel dredging, quay wall realignment, repair and maintenance uses, erection of offices, industrial and storage buildings, the delivery and export of port related cargo and associated infrastructure.

The Proposed Development comprises of the following components:

- Access channel
- Inner channel/berthing
- Main port activity area
- Port support/administrative buildings
- Port related light industrial uses
- Pipe spooling area
- Temporary on-site storage area for dredged material

The Indicative Masterplan for the Proposed Development is shown in Figure 3 below.



5. Policy and Context

The National Planning Framework (NPF3) is a statement of the Scottish Government’s national planning priorities. It guides the preparation of development plans and is a material consideration in planning decisions. NPF3 identifies the national opportunities within each of the city regions of Scotland. NPF3 states that Ardersier *“is well-placed to take advantage of investment in the energy sector, both in renewables and in oil and gas”*. NPF3 recognises the wider economic benefits that will be gained by developing this site to support the energy sector. NPF3 supports the development of the site, provided the continuing protection of the very special environment of the Moray Firth.

The Highland wide Local Development Plan (HwLDP) was adopted by The Highland Council in 2012. The plan sets out a strategy to support the growth of communities across the Highlands. The plan directs development in the first instance to places with sufficient existing or planned infrastructure and facilities to support sustainable development.

The HwLDP contains a vision for the Inner Moray Firth area which seeks to direct development to appropriate locations, whilst ensuring the benefits are experienced by all communities. The HwLDP designates the former fabrication yard as a Strategic Development Site (referred to in the HwLDP as Whiteness). The HwLDP supports the development of this site for housing and renewables related development.



The Inner Moray Firth Local Development Plan (IMFLDP) was adopted by The Highland Council in July 2015 and represents a guide for development and investment in this part of the Highlands. The site is identified as part of the Inverness to Nairn Growth Area. The site is specifically identified in the IMFLDP for industrial use (renewables, innovation, manufacturing and maintenance hub).

The National Renewables Infrastructure Plan (N-RIP) prepared by Highlands and Islands Enterprise (HIE) and Scottish Enterprise, identifies Ardersier amongst a number of sites that are considered to be suitable locations for off-shore renewable energy maintenance developments.

An assessment of the Proposed Development's compliance with planning policy is addressed in a separate Planning Supporting Statement (Graham + Sibbald, 2018) that accompanies the planning application submission. This Statement considers the overall appropriateness of the Proposed Development and concludes that the Proposed Development complies with national and local policy objectives.

6. Scoping and Consultation

Scoping and consultation exercises were undertaken to inform the Environmental Impact Assessment (EIA) process. The Scoping stage involves agreeing the content and approach to the EIA with the consenting authority (in this instance The Highland Council and Marine Scotland) and with key stakeholders.

The purpose of the scoping stage is to identify the environmental topics to be assessed within the EIA to determine the likely significant effects. As a result of this process, some aspects are scoped out of the assessment where it was evident that they would not result in a likely significant effect. In this instance some aspects were also scoped out where it was considered that there has been no legislative/policy or baseline condition changes since the previous planning consent and marine licence consents were issued in 2013.

A formal request for a Scoping Opinion was submitted to both The Highland Council and Marine Scotland. The Highland Council provided a Scoping Opinion on the 8th June 2018 and Marine Scotland provided their Scoping Opinion on the 16th July 2018.

The EIA Report has been prepared in accordance with these Scoping Opinions and has assessed the following environmental topics based on the potential for significant effects as a result of the Proposed Development:

- Shipping and Navigation
- Terrestrial Ecology and Ornithology
- Marine Ecology
- Air Borne Noise and Ground Borne Vibration
- Underwater Noise
- Water Environment

It was agreed at the Scoping stage that the following topics could be 'scoped out' and did not need to be assessed within the EIA Report:

- Contaminated Land Assessment
- Flood Risk Assessment
- Landscape and Visual Assessment



- Socio-Economic Assessment

Key stakeholders were identified at the pre-application stage to allow the Applicant to undertake early engagement. The Applicant undertook formal Scoping consultation and further discussions with statutory consultees including The Highland Council, Marine Scotland, Scottish Environment Protection Agency (SEPA) and Scottish Natural Heritage (SNH). The Applicant also engaged with Ardersier and Petty Community Council.

A public consultation event in association with the planning application to renew the existing planning permission in principle was held in the Ardersier War Memorial Hall on the 21st June 2018. A second public consultation event was held at the same venue on the 14th September 2018. This second event was in association with the proposed marine licence applications.

The events provided the public with information on the Proposed Development and an opportunity to discuss the proposal with the Applicant. Feedback was found to be generally positive due to the potential for provision of job creation and bringing economic benefits to the area.

7. Shipping and Navigation

Ardersier Port Ltd is a statutory Harbour Authority as defined by the Port of Ardersier Harbour Revision Order 2014. This Harbour Revision Orders was transferred to Ardersier Port Ltd (the Applicant) in 2017.

Ardersier Port Ltd is required to comply fully with all its duties contained within the Harbour Revision Order and the Port Marine Safety Code.

Currently most vessels travelling to/from Inverness Harbour and beyond navigate using the North Channel. The main dredging operations undertaken as part of the Proposed Development will be outwith any existing shipping routes.

Prior to commencing operations, Ardersier Port Ltd will develop a formal Marine Safety Management System (MSMS).

Based on the current and historical vessel movements passing the Proposed Development site and the location of the dredging operation, there is no increased risks to the safe navigation of vessels from the construction project phase.

The risk management of the safe navigation of vessels using Ardersier Port will be fully encompassed within the final Marine Safety Management System which will be managed by the Harbourmaster and audited on an ongoing basis by the Designated Person (appointed to provide independent assurance about the operation of the System). Following the implementation of the risk assessment recommendations, the Proposed Development will have negligible effects on shipping and navigation.

8. Terrestrial Ecology and Ornithology

An Ecological Impact Assessment (EclA) has been carried out to identify any likely significant effects arising from the Proposed Development. The scope of the assessment includes the following:

- Phase 1 Habitat Survey;
- Groundwater Dependent Terrestrial Ecosystem Survey;
- National Vegetation Classification Survey;
- Lichen Survey;
- Protected Species Survey;



- Breeding Bird Survey;
- Summer Foraging and Roosting Counts; and
- Non-breeding/Wintering Bird Survey.

The assessment identified key sources of impacts that are predicted to result in terrestrial ecological or ornithological effects during the construction and operational phase.

Following the effective implementation of mitigation measures, which have been designed following review of the engineering design and construction techniques, there will be significant adverse effects from the construction phase on Lichens. These effects are as a result of the habitat loss during the proposed capital dredge, and are assessed as being of local significance.

Adverse effects resulting from the Proposed Development on all other Important Ecological Features in relation to terrestrial ecology and ornithology will not be significant. Relevant legislation and planning policies will be adhered to and local and UKBAP targets will remain unaffected. The integrity of all designated sites will remain intact.

The Ecological Impact Assessment concluded that the Proposed Development would result in significant positive effects as the construction phase will benefit qualifying species of the locally designated sites and bird aggregations in the area. The positive effects will be achieved through the creation of a new island which will enable birds to roost and potentially breed, without disturbance or land predation. These effects are assessed as of Regional significance.

9. Marine Ecology

The EIA Report includes a Marine Ecological Impact Assessment. This details the specialist marine studies undertaken and the results of the assessment. The assessment has been carried out according to the latest guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM).

The Marine Assessment examined the effects of the proposals on designated sites, marine mammals, marine fish, intertidal and subtidal habitats, benthic fauna and vegetation. The report also set a zone of influence for each identified Important Ecological Feature.

The Marine Ecological Impact Assessment concluded that following the effective implementation of mitigation measures, adverse effects on marine Important Ecological Features will not be significant. Relevant legislation and planning policies would be adhered to and local and UK Biodiversity Action Plan targets would remain unaffected. The integrity of the Moray Firth, Dornoch and Morrich More and the River Moriston Special Areas of Conservation would remain intact.

10. Airborne Noise and Groundborne Vibration

The EIA Report assesses the likely significant noise and vibration impacts of the Proposed Development in relation to airborne noise and groundborne vibration. In particular the potential impacts of noise and vibration during the construction works and once the Proposed Development is operational upon the surrounding noise sensitive receptors have been assessed.

During the construction phase of the Proposed Development, if appropriate measures to mitigate and control noise from construction works are available and are implemented in accordance with relevant



planning conditions, minimum disturbance to local residents is envisaged. Some short-term disturbance to sensitive receptors immediately adjacent to the Site is likely when works occur on or near the site boundary, resulting in temporary moderate adverse effects.

Appropriate measures to mitigate and control noise from construction works are available and would be implemented in accordance with existing planning conditions. As a consequence, it is envisaged that the construction works would proceed with the minimum disturbance to local residents and businesses.

With regards to the potential effects of construction-generated vibration on nearby existing and proposed potentially sensitive receptors, vibration limits would be set to ensure compliance with national standards and minimise the risk of complaints or building damage. Following the implementation of appropriate mitigation measures, construction generated vibration would have a negligible effect on existing noise sensitive receptors.

In terms of operational noise, by implementing the appropriate level of mitigation, residual effects would remain neutral.

Neutral significance of effects is predicted in relation to traffic noise.

11.Underwater Noise

This EIA Report considers underwater noise effects that may arise during the construction and operation of the Proposed Development.

The Proposed Development will involve dredging of the channel leading into the port and vibropiling to install the new quay wall.

Comparing like-for-like, vibropiling noise results in larger impact ranges than dredging, with the largest ranges expected for high frequency cetaceans. The ranges are exacerbated when considering long time periods or the case of a stationary animal.

The way in which noise affects marine mammals is dependent on several factors, including the type of noise generated, the noise level, the species of marine mammal and the distance between the animal and the source of the noise.

Harbour porpoise are the most sensitive marine mammal species to underwater noise. The species of concern will therefore be harbour porpoise, to represent a worst-case scenario. It is considered that the mitigation suggested to protect them will be effective at protecting any other species present within the working area.

A mitigation zone will be set in advance of any vibropiling or dredging works being undertaken. A protocol will be in place to determine that no marine mammals are within the mitigation zone in advance of work commencing. There will be no risk to marine mammals once they have vacated the mitigation zone.

The proposed dredge storage site is adjacent to the Ardersier haul-out site. Dredging activities and the disposal of dredged material could cause disturbance to any seals that are hauled-out.



It has been assessed that the primary risk from the works is to harbour porpoise, with consideration given to bottlenose dolphin, minke whale, killer whale, common dolphin, humpback whale and grey and common seal. This will be a temporary minor disturbance from underwater noise associated with vibropiling and dredging. The noise is not predicted to cause long term negative effects on the local populations of marine mammal species due to its short duration and adherence to mitigation measures.

Given the mitigation measures and the short term nature of the works producing underwater noise, the number of individuals affected will be negligible and any disturbance which may occur will not result in a significant disturbance.

12. Water Environment

The EIA Report provides an assessment of the implications of the Proposed Development on the water environment and coastal processes. The water environment is considered to encompass hydrology, hydrogeology and water quality. Whilst coastal processes are considered to encompass tides, waves and sediment transport processes.

The following designated sites are located within 5km of the Proposed Development site:

- Whiteness Head Site of Special Scientific Interest (SSSI), which is designated for coastal geomorphology, coastal features (saltmarsh, sand dunes and shingle) and marine features (sandflats).
- Inner Moray Firth Special Protection Area (SPA) at Whiteness Head and Whiteness Sands, with the SPA designated for breeding, non-breeding and foraging birds.
- Moray Firth Special Area of Conservation (SAC), which is designated for marine features (including marine mammals) (bottlenose dolphin (*Tursiops truncatus*) and subtidal sandbanks).
- Inner Moray Firth RAMSAR site and is designated for marine features (including marine mammals) (intertidal mudflats and sandflats) and coastal features (saltmarsh, sand dunes and shingle).
- Designated haul-out sites for Grey and Common/Harbour Seals (Protection of Seals Orders).

The coastal waters within the Site are classified under the Water Framework Directive (WFD) monitoring programme coastal waterbodies.

The majority of the Site intended to be used as a port is shown as not being at risk of flooding. Flood risk has been scoped out of this EIA.

Surface Water Runoff

During construction there is potential for increased runoff due to the introduction of impermeable and semi-permeable surfaces arising from the disturbance of existing ground cover and construction of proposed infrastructure. This could reduce the infiltration capacity and increase the rate and volume of direct surface runoff. The potential environmental effect of this is to increase or alter flow rates and routes, potentially leading to increases in erosion, sediment transport and associated hydro morphological impacts.

Given the coastal location of the Proposed Development, the permeable nature of the existing surfaces, permeable nature of the proposed surfaces, and the absence of draining watercourses, the potential impacts of surface water flow alterations and increased runoff are considered to be of a negligible magnitude prior to mitigation.



As during construction, there is potential for increased runoff due to the presence of impermeable and semi-permeable surfaces. The impact of surface water flow alterations and increased runoff would be of a negligible magnitude prior to mitigation measures due to the coastal location of the development.

Water and Sediment Quality

The proposed dredging works could potentially cause plumes of suspended solids and a reduction in water quality with a resultant impact on aquatic life.

Given the relatively coarse nature of the dredge budget it is considered that any plumes generated as a result of the dredging works will be very localised and short term in duration.

Overall it is considered that prior to mitigation the magnitude of impact of sediment discharge and dispersion from dredging works will be low within the immediate dredge area, and negligible out with this area in the wider Moray Firth.

Maintenance dredging will be required, the likely effects of which would be of a similar nature, albeit lower order, than that of the capital dredge during construction.

There is unlikely to be any groundworks during the operational phase, and therefore the risk of erosion and sedimentation will be much lower than during construction. The potential risk of pollution from spillages will however remain during the operational phase. Additionally, there is the potential risk of contamination of surface water runoff from the development platform, as well as contamination of coastal waters as a result of discharges from visiting boats.

The impacts on water quality would therefore range from low to high magnitude prior to mitigation measures.

During construction there is a risk of accidental pollution incidences affecting the water environment (i.e. coastal waters and sediment) from the following sources:

- Spillage or leakage of oils and fuels stored on site;
- Spillage or leakage of oils and fuels from construction machinery or site vehicles;
- Spillage of oil or fuel from refuelling machinery on site;
- Spillage or leakage from on-site toilet facilities;
- Suspended solids from construction works; and
- The use of concrete and cement in construction works.

The main risk is considered to be posed by refuelling activities. Oil or fuel spillages to the water environment would be detrimental to water and sediment quality, and could affect fauna and flora.

Concrete (specifically the cement component) is generally highly alkaline and any spillage to the water environment and/or sediment could be detrimental to water/sediment quality, fauna and flora.

The effect of the potential pollution incidences during construction on water quality would be dependent on the scale and nature of the incident, therefore the magnitude of impact prior to mitigation may range from low to high.

Tidal Regime

The proposed construction works, including the proposed capital dredge requirement, could result in alterations to the local tidal regime.



Overall, the impact of the Proposed Development on the tidal regime is considered to be of medium magnitude within the immediate vicinity of the site, low magnitude in the surrounds and negligible magnitude within the wider Moray Firth.

The impact of the Proposed Development during the operational phase on the tidal regime within the Site is considered to be the same as during the construction phase. Therefore the magnitude of impact on the tidal regime is considered to be of medium magnitude within the immediate vicinity of the Site, low magnitude in the surrounds and negligible magnitude within the wider Moray Firth.

Wave Climate

The Proposed Development, including the proposed capital dredge requirement, could result in alterations to local wave climate within the site, and the wider Moray Firth.

Overall, the impact of the Proposed Development on the wave climate is considered to be of medium magnitude within the dredge zone and immediate vicinity, low magnitude in the surrounds and negligible magnitude within the wider Moray Firth.

The impact of the Proposed Development during the operational phase on the wave climate within the Site is considered to be the same as during the construction phase. Therefore the magnitude of impact on the wave climate is considered to be of medium magnitude within the immediate vicinity of the Site, low magnitude in the surrounds and negligible magnitude within the wider Moray Firth.

Sediment Transport

It is considered that the impact of the Proposed Development on sediment transport and coastal morphology within the immediate vicinity of the proposed dredge zone will be of medium magnitude, low magnitude in the surrounds and further from the reinstated navigation channel the magnitude will be negligible.

The impact of the Proposed Development during the operational phase on sediment transport within the Site is considered to be the same as during the construction phase. Therefore the magnitude of impact on sediment transport is considered to be of medium magnitude within the immediate vicinity of the Site, low magnitude in the surrounds and negligible magnitude within the wider Moray Firth.

There are residual effects that are considered to be of major and moderate significance, therefore under the EIA regulations these effects are considered to be significant.

The residual effects considered to be major relate to Whiteness Head Spit and the associated designations. The residual effects are concentrated at the head of the spit where the navigation channel will be reinstated. The 4.6 km SSSI designated length of spit to the east of the navigation channel (over 90% of the designated feature) will be subject to negligible impact. This area of the spit around the navigation channel was previously actively maintained from 1972-2001 and the impacts will be similar to those previously experienced during that time.

The residual effects considered to be moderate relate to Whiteness Sands and localised sediment disturbance from dredging and possible pollution incidents. The significance of these effects is due to the designations of the receptors identified. The residual effects are limited to the north eastern area of Whiteness Sands, resulting in the majority of the designated areas of the sands being subject to negligible impact.



13.Cumulative Assessment

An assessment was undertaken of the potential effects resulting from the combined action of different environmental topics specific effects associated with the Proposed Development on a single receptor/resource and the potential cumulative effects of the Proposed Development in conjunction with other existing and committed projects within the vicinity of the site.

It was agreed with The Highland Council that the following developments/projects should be considered as existing or proposed projects in proximity to the Proposed Development and should be taken into consideration in the cumulative assessment:

- Norbord Factory Extension, Dalcross
- Castle Stuart Golf Course
- A96 Improvement Works
- Beatrice Offshore Windfarm
- Moray Offshore Windfarm (East and West)
- European Offshore Deployment Centre, Aberdeen Bay
- Shetland HVDC Cable
- Co-op Distribution Centre, Inverness Airport
- Tornagrain New Town
- Nigg Fabrication Yard
- Invergordon Service Yard

No significant cumulative effects are predicted to arise as a result of the combined effects of the Proposed Development on different environmental discipline specific effects on a single receptor/resource.

No significant cumulative effects are predicted in relation to the construction and operation of the Proposed Development in combination with the other existing or committed projects and developments within the vicinity of the Site.



14. Overall Statement of Significance

Following the implementation of the mitigation measures identified within the EIA Report. The Proposed Development would not result in any significant effects during construction and operation in relation to shipping and navigation, marine ecology, air borne noise and vibration and underwater noise.

The Proposed Development will result in significant effects in relation to terrestrial ecology and ornithology. This purely relates to Lichens as the Proposed Development will not result in any significant effects in terms of all other Important Ecological Features. The significant adverse effect on Lichens will be during the construction phase and as a result of the loss of habitat during the proposed capital dredge.

The Proposed Development will also have significant positive effects on qualifying species of the locally designated sites and bird aggregation in the area during the construction phase. This will be achieved through the creation of a new island which will enable birds to roost and potentially breed without disturbance or land predation.

The Proposed Development will result in significant effects in relation to the water environment. As detailed above, the residual effects are concentrated at the head of the spit where the navigation channel will be reinstated. Over 90% of this designated feature will be subject to negligible impact. This area of the spit around the navigation channel was previously actively maintained during the operation of the former fabrication yard and the impacts will be similar to those previously experienced during that time.