

Marine Works Environmental Impact Assessment  
Scoping Report

Former Fabrication Yard  
Whiteness Head  
Ardersier  
Inverness  
IV2 7QX

On behalf of **Ardersier Port Ltd**

Date: 25/04/2018

Our Ref: KMcG/2017/11/0234



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# 1.

## Introduction

A Request for a Scoping Opinion and accompanying Scoping Report was submitted to The Highland Council on the 27<sup>th</sup> March 2018. The Scoping Report related to Ardersier Port Ltd's proposal to renew the existing in principle planning consent and proposed marine licence applications in association with the establishment of a port and port related services for energy related uses at the former Fabrication Yard, Ardersier, Nairn. The Scoping Report was submitted in accordance with The Marine Works (Environmental Impact Assessment)(Scotland) Regulations 2017 and The Town and Country Planning (Environmental Impact Assessment)(Scotland) Regulations 2017.

Ardersier Port Ltd and Graham + Sibbald met with Marine Scotland on the 16<sup>th</sup> April 2018. At this meeting, Marine Scotland requested the submission of a separate Scoping Report specifically in relation to The Marine Works (Environmental Impact Assessment)(Scotland) Regulations 2017. Marine Scotland requested that the extent of this Scoping Report relates to all relevant environmental topics (terrestrial and marine).

The purpose of this Scoping Report is to agree the scope of the Environmental Impact Assessment Report (EIAR) to accompany the marine licence applications for construction works and dredging and the application to extend the period for construction works identified in the harbour revision order. This Scoping Report has been prepared in accordance with the Marine Works (Environmental Impact Assessment)(Scotland) Regulations 2017.

Marine Scotland, Transport Scotland and The Highland Council has agreed that a single EIAR can be prepared to accompany the marine licence applications, harbour revision order and the application to renew the existing in principle planning consent.

This Request for a Scoping Opinion is submitted in accordance with Part 4 Section 14 of The Marine Works (Environmental Impact Assessment)(Scotland) Regulations 2017.

In accordance with the above regulation requirements, a Location Plan is included in Appendix 1 of this report.

### **Previous Environmental Statements Prepared for the Site**

In 2006, an Environmental Statement was prepared to accompany an application for outline planning consent for a residential and leisure development at this site.

In 2013, a single Environmental Statement was prepared to support the applications for planning permission in principle, marine licences and harbour revision order for the establishment of a port and port related services. The scope of the Environmental Statement related to the following environmental topics only:

- Landscape and Visual
- Terrestrial Ecology and Ornithology
- Marine Ecology
- Air Bourne Noise and Ground Borne Vibration
- Underwater Noise
- Coastal Processes

- Flood Risk
- Socio-Economics

The scope of the 2013 Environmental Statement was agreed with Marine Scotland, The Highland Council and Transport Scotland. As there have been no material changes to the proposed development, it is considered that the environmental topics to be included within the EIAR should remain the same as the scope of topics agreed in 2013.

### **Project Background**

The following consents/orders and licences are currently in place in relation to the former Fabrication Yard at Ardersier:

- The Port of Ardersier Harbour Revision Order 2014
- The Port of Ardersier Harbour Revision (Transfer) Order 2017
- Marine Scotland Licence 04850/14/0 - Licence for Marine Construction Works and Deposits of Substances or Objects in the Scottish Marine Area. This licence expired in March 2018
- Marine Scotland Licence 04851/16/0 – Licence for the Act of Dredging and Sea Disposal of Dredged Spoil in the Scottish Marine Area. This licence is due to expire in May 2018
- The Highland Council Outline Planning Permission Decision Notice 05/01294/OUTIN - residential and leisure development including housing, a marina, boat yard, yacht club, visitors centre, nature conservation zone and hotel with supporting community facilities and sewage treatment plant
- The Highland Council Planning Permission in Principle Decision Notice 13/01689/PIP - 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, marine channel dredging, quay realignment, repair and maintenance, erection of offices, industrial and storage buildings and associated new road access, parking, infrastructure, services, temporary stockpiling of dredging material, re-grading and upfilling of landward areas and landscaping

It should be noted that the land ownership of this site changed in 2016. Port of Ardersier Ltd went into Administration in October 2015 and Ardersier Port Ltd has now taken over the ownership of this site. The harbour revision order granted in 2014 was transferred to Ardersier Port Ltd in 2017.

### **Site Location**

The location of the proposed development is the former McDermott Fabrication Yard, situated approximately 7.5km to the west of Nairn, 18km north east of Inverness and 3km north east of Ardersier.

The site extends to a total of 307 hectares of brownfield land and is accessed via an existing 2.5km long access road which links the B9092 to the south. The B9092 links with the A96, which is the main transport link between Inverness and Aberdeen.

In the 1970's a substantial area of land was reclaimed from the foreshore. The majority of the site was reclaimed using sand dredged from the harbour, which was levelled behind a piled steel retaining wall, at approximately 4.5m above ordnance datum (AOD).

Following the land reclamation undertaken in the 1970's, the site was utilised for industrial purposes for the fabrication and construction of off-shore platforms for the oil and gas industry. Activity at the site ceased in early 2000 and it has been vacant for approximately 18 years. The site has undergone significant decontamination works since operations ceased.

Whiteness Head is designated as a Site of Special Scientific Interest (SSSI) and forms part of the Inner Moray Firth Special Protection Area (SPA). It is also a RAMSAR site. The Moray Firth is designated as a Special Area of Conservation (SAC). The site also lies within the Sutors of Cromarty, Rosemarkie and Fort George Special Landscape Area (SLA).

The site is bounded to the north by the Moray Firth, the Carse of Delnies is situated to the east of the site, Carse Wood to the south and an area of sand dunes and tidal mudflats to the west. To the southwest of the site is the Fort George live firing range, owned by the Ministry of Defence. To the north west of the site and included within the site boundary is Whiteness Head sand spit. The spit shelters a harbour that lies between the spit and the main part of the former fabrication area.

### **Project Description**

The proposed development is for the establishment of a port and port related services for energy related uses. The consented masterplan is contained within Appendix 2 of this report.

The consented development also proposes to rebuild and indent the current harbour wall, improve the channel by dredging and reforming a dredged channel.

The description of the proposed development and the design parameters of the scheme have not changed since in principle consent was granted in January 2014.

### **Construction Environmental Management Plan**

A Draft Construction Environmental Management Plan (CEMP) was included as Appendix 15.1 of the 2013 Environmental Statement.

In November 2017, EnviroCentre Ltd prepared a Draft Construction Environmental Management Document (CEMD) on behalf of Ardersier Port Ltd.

This Draft CEMD has been prepared to facilitate environmental management during construction activities associated with quay wall reinstatement and capital dredging. This has been produced in accordance with The Highland Council Guidance Note on Construction Environmental Management Process for Large Scale Projects (August 2010). This Guidance Note sets out a robust Project Environmental Management Process (PEMP) for large scale projects. The CEMD is one of the key management tools to implement the agreed Schedule of Mitigation set out in the 2013 Environmental Statement.

In December 2017, Marine Scotland and Transport Scotland approved the CEMD in relation to the capital dredging works.

The CEMD is an evolving document and a full copy of the current version of the document will be submitted as a technical appendix to the EIAR.

### **Consultation**

Continued consultation is viewed by Ardersier Port Ltd as a key component of the delivery of the proposed development at the former Fabrication Yard.

In accordance with the Planning etc. (Scotland) Act 2006 and the Town and Country Planning (Hierarchy of Development)(Scotland) Regulations 2009, the renewal of the planning permission in principle is a 'major' scale development. There is therefore a statutory requirement for Ardersier Port Ltd to submit a Proposal of Application Notice and undertake a public consultation event.

In addition to ongoing consultation with The Highland Council, Marine Scotland and Transport Scotland, Ardersier Port Ltd has also undertaken continued engagement with Scottish Natural Heritage (SNH) and Scottish Environment Protection Agency (SEPA). This ongoing consultation will continue throughout this Scoping stage and preparation of the EIAR.

It is Ardersier Port Ltd's intention to consult with the appropriate bodies in relation to the preparation of the proposed assessments to be included in the EIAR.

## 2.

### Approach to Defining the Scope of the EIAR

The scope of the 2013 Environmental Statement included the following environmental topics:

- Landscape and Visual
- Terrestrial Ecology and Ornithology
- Marine Ecology
- Air Borne Noise and Ground Borne Vibration
- Underwater Noise
- Coastal Processes
- Flood Risk
- Socio-Economics

The description of development and design parameters for this project have not been altered. There has therefore been no design changes that would result in the need for further environmental topics to be considered.

A significant amount of baseline data is available for this site and was gathered as part of the 2005 Environmental Statement for the consented residential and leisure development and the 2013 Environmental Statement for the port and port related services consent.

The aim of this Scoping Report is to identify the environmental topics where there has been a baseline, assessment methodology or legislative change since the previous Environmental Report was prepared in 2013 and which may require further assessment work to determine potential effects.

For those topics where it has been identified that further/updated assessments are required, a methodology statement describing the approach to the assessment of impacts is detailed within Chapters 4 – 11 of this Scoping Report.

For each environmental topic, the following review has been undertaken:

- Identify and summarise the baseline data that was gathered to inform the 2013 Environmental Statement. Consideration of the validity of the data in terms of describing the current baseline conditions. Where more recent publicly available desktop data sources have become available, these have been identified. Where necessary, a description of additional data to be used in an updated assessment will be identified.
- Each topic section considers whether the impact assessment methodology applied in the 2013 ES remains valid and identifies any legislative changes or updates in approach or best practice. Where new legislation, policy or guidance is relevant, each topic section will identify how this will be incorporated into the EIAR.

### 3.

## Policy and Legislative Context

The marine licence applications will conform to the Marine (Scotland) Act 2010.

The EIAR will be prepared in accordance with The Town and Country Planning (Environmental Impact Assessment)(Scotland) Regulations 2017 and The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017. It has been agreed with Marine Scotland, Transport Scotland and The Highland Council that a single EIAR can be submitted for both the renewal of the in principle planning consent, marine licences and harbour revision order.

The EIAR will take account of the requirements of the following:

- National Planning Framework for Scotland 3
- Scottish Planning Policy 2014
- Highland-wide Local Development Plan 2012
- Inner Moray Firth Local Development Plan 2015

The 2013 Environmental Statement included a technical chapter on Site Selection and Alternatives. Planning permission in principle was granted in January 2014 (application reference: 13/01689/PIP) and this consent established the principle of the proposed development at this specific location. The EIAR is submitted to support the renewal of this existing in principle consent. As the principle of this development at this location has previously been established, it is not considered necessary to assess Site Selection and Alternatives and this has been 'scoped out' of the EIAR.

The following chapters of this Scoping Report review the environmental topics contained within the 2013 and identify the requirements for updated assessment work to be undertaken. The table below provides a summary of the environmental topics considered in the 2013 Environmental Statement, if any residual impacts were identified and a summary of the updated assessment work proposed.

2013 Environmental Topics	Residual Effects Identified in 2013 ES	Summary of proposed assessment work to be undertaken for 2018 EIAR
Landscape and Visual	<p>A moderate adverse residual effect on the landscape resource of the study area as a whole with localised substantial adverse impacts</p> <p>A moderate adverse effect on the visual amenity of the study area as a whole with localised substantial adverse impacts.</p>	<p>There have been no changes to relevant guidance, the landscape character of the area of any significant changes at any of the viewpoint locations since 2013.</p> <p>It is therefore not proposed to undertake any updated landscape and visual assessment.</p>
Terrestrial Ecology and Ornithology	<p>The implementation of a Habitat Management Plan for this area will have a beneficial impact on populations of European important species, mitigate against any negative impacts on the Inner Moray Firth SPA, and would therefore represent a positive effect of at least Moderate significance.</p>	<p>It is proposed that an updated review of relevant legislation and guidance will be undertaken.</p> <p>It is proposed that a Phase 1 Habitat Survey will be undertaken and an update of the relevant legislation and guidance will be carried out.</p> <p>An updated Breeding Bird Assessment and Lichen Survey will also be carried out.</p>



		<p>An Ecological Impact Assessment will be undertaken in accordance with the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater and Coastal 2016.</p> <p>A Habitats Regulation Assessment will then be undertaken.</p>
Marine Ecology	<p>The residual effects on the Moray Firth SAC will be short term and not significant.</p> <p>The residual effects on Marine Mammals will be short term and not significant.</p>	<p>It is proposed that an updated review of relevant legislation and guidance will be undertaken.</p> <p>A review of existing mammal, diadromous and marine fish will be undertaken.</p> <p>An Intertidal Ecology Assessment and Habitat Regulation Assessment will be undertaken.</p> <p>A Marine Mammal Protection Plan will be provided.</p>
Air Borne Noise and Ground Borne Vibration	Negligible	<p>There have been no changes to baseline conditions or significant policy/guidance changes. It is therefore not proposed that any updated air borne noise and ground borne assessment work will be undertaken.</p>
Underwater Noise	Negligible	<p>There have been no changes to baseline conditions or significant policy/guidance changes. It is therefore not proposed that any updated underwater noise assessment work will be undertaken.</p>
Coastal Processes	<p>Negligible</p> <p>As a result of the nature of the dredged material and disposal strategy, there is unlikely to be any positive or negative impact on the saltmarsh communities that occupy these areas, in terms of altered sediment/nutrient supply.</p>	<p>It is proposed that a Water Environment Chapter will be included in the EIAR. This will cover the water environment and coastal processes.</p> <p>An updated Coastal Processes Investigation will be undertaken.</p> <p>A sampling plan will be agreed with Marine Scotland in advance of works being undertaken. Further bathymetric survey, topographical survey, sediment sampling and grab sampling will be undertaken.</p>
Flood Risk	Negligible	<p>The 2013 Flood Risk Assessment was based on the most up to date published coastal flood levels. It is therefore not proposed to undertake any updated Flood Risk Assessment. This has been agreed in SPEA's Scoping Response dated 17<sup>th</sup> April 2018.</p>
Socio-Economics	Significant positive effect	<p>The baseline data and policy context has not significantly changed since 2013. It is therefore not proposed to undertake any updated socio-economic assessment.</p>

## 4. Landscape and Visual

Chapter 6 of the 2013 ES related to Landscape and Visual and was accompanied by a full Landscape and Visual Impact Assessment (Volume 3 Technical Appendix 6.1) and associated Figures (Volume 3 Technical Appendix 6.2).

The methodology for this assessment was based on the Landscape Institute and the Institute of Environmental Assessment 'Guidelines for Landscape and Environmental Assessment Visual Assessment' (Second Edition 2002).

It is noted that a Third Edition was published in 2013. The changes in the third edition primarily relate to English policy and legislative changes. It also refers to changes in landscape character assessments (LCA). As the relevant LCA's for this area have not been updated it is not considered that the publication of this revised guidance merits a revised Landscape and Visual Assessment.

The relevant LCA for this area remain as the Inner Moray Firth LCA 1998 no. 90 and Moray and Nairn LCA 1998 No.101.

There have been no further changes to relevant guidance associated with landscape and visual assessments.

The study area selected for the landscape and visual assessment was selected on a realistic and pragmatic basis as a 15km radius from the centre of the site. Beyond which it was considered that the proposed development is unlikely to result in significant impacts or effects.

A more focused study area of 5km was identified for the assessment of areas and features of cultural heritage interest.

The Landscape and Visual Assessment also included an assessment of cumulative effects associated with the following proposed developments in the study area:

- Castle Stuart Golf Course Development
- Inverness Airport Expansion
- Inverness Airport Business Park
- Tornagrain New Town
- Delnies Masterplan
- A96 Improvements

The proposed development site lies partly within Landscape Character Type (LCT): 'Intensive Farming'. The south eastern portion of the site lies within the 'Coastal Farmlands' LCT. Both of these LCTs are relatively well represented in the study area.

The spit at Whiteness Head lies within LCT 'Soft Coastal Shore' which is less well represented. The development site is broadly typical of these character types.

The development site itself is not covered by any local or national designations for landscape quality. There are two Special Landscape Areas (SLAs) and one Area of Great Landscape Value (AGLV) lying within the study area.

There are a number of designed landscapes within the study area which are listed in 'An Inventory of Gardens and Designed Landscapes' Volume 3, Highland, Orkney and Grampian and Supplementary Volume 2. Highlands and Islands. There are 15 Scheduled Ancient Monuments (SAMs) within 5km of the site. There is 1 Category A Listed Building within 5 km of the site: Fort George. There are twenty one Category B Listed Buildings (or groups) within 5 km of the site and 7 Category C Listed Buildings within 5 km of the site.

There have been no significant changes to the landscape character or any of the above identified features since 2013. The methodology applied in 2013 therefore remains valid.

The Visual Amenity of the Study Area is characterised by the general openness of the coastal and moorland landscapes in combination with the dominance of large areas of sky.

The 2013 Landscape and Visual Assessment identified 17 viewpoints that were selected as being representative of views in the study area.

As detailed above, the Landscape and Visual Assessment included a Cumulative Assessment in relation to proposed developments within and around the study area. No additional new significant developments have been proposed within the 15km study area since 2013. There have therefore not been any significant changes to the selected viewpoints to require the assessment to be updated and there is no requirement for additional viewpoints to be assessed.

The Landscape and Visual Assessment concluded that there will be no direct impacts accruing for any sites designated for landscape quality in terms of the landscape resource. The previous assessment concluded that the residual effects of the proposed development were considered to be significant from certain viewpoints. The residual effects were assessed as follows:

- A moderate adverse residual effect on the landscape resource of the study area as a whole with localised substantial adverse impacts
- A moderate adverse effect on the visual amenity of the study area as a whole with localised substantial adverse impacts.

It is considered that the baseline data and assessment methodology used in the 2013 Landscape and Visual Assessment remains valid. The findings of this assessment are therefore also valid. It is considered that an updated Landscape and Visual Assessment is not required.

## 5. Terrestrial Ecology and Ornithology

Due to the changing nature of habitats and species and the changes identified at the site between the 2005 and 2013 surveys, it is considered that the baseline conditions may have changed since 2013. Furthermore, the Chartered Institute of Ecology and Environmental Management issued revised guidance in January 2016 (Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal). Given the change in assessment methodology and potential changes to baseline conditions, it is proposed that a Terrestrial Ecology and Ornithology Assessment will be undertaken as part of the EIAR.

### *Legislation and Guidance*

The following legislation and guidance will be taken into consideration in the preparation of the Terrestrial Ecology and Ornithology Assessment:

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive)
- The Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) which transposes the Habitats Directive into UK law
- The Conservation (Natural Habitats &c.) (Amendment) Regulations 2007
- The Conservation of Habitats and Species (Amendment) Regulations 2010 relating to reserved matters in Scotland
- Directive 2009/147/EC Birds Directive
- Wildlife and Countryside Act 1981 (as amended)
- The Nature Conservation (Scotland) Act 2004
- The Wildlife and Natural Environment (Scotland) Act 2011
- Protection of Badgers Act 1992 (as amended)
- PAN 51: Planning, Environmental Protection and Regulation (revised 2006)
- PAN 60: Planning for Natural Heritage (2000)
- Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2016)
- Scottish Government Scottish Biodiversity Strategy
- Highland Local Biodiversity Action Plan

### *Baseline Conditions*

A desk-based review will be carried out of the existing ecological data for the site and the previous assessments undertaken in 2005 and 2013.

The following surveys and reports have previously been undertaken for the site:

- Terrestrial Ecology Maps (Phase 1 Habitats and Mammal Activity) – 2013 Environmental Statement
- Habitats Regulation Assessment 2013
- Lichen Survey 2000 and 2005
- Otter Survey 2013
- Great Crested Newt Survey 2013
- Bird Survey Data 2013
- Ecological Impact Assessment undertaken by CPM in 2005
- The Whiteness Head Site of Special Scientific Interest (SSSI) Management Statement 2002 (SNH 2005)
- WeBS low tide data and bird density maps from the British Trust of Ornithology (BTO)
- SNH commissioned reports on wader count data from the Highland Ringing Group (HRG) and data from the Scottish Raptor Group (SRG)

### *Assessment Methodology*

A Phase 1 Habitat Survey will be undertaken in accordance with the JNCC Handbook 2010. A survey of potential habitats for protected species will also be undertaken. This will include an assessment of potential habitats for bats, badgers, otters and great crested newts. A National Vegetation Classification (NVC) Survey of notable habitats will be carried out (Annex 1 and GWDTE).

An updated Breeding Bird Assessment will be undertaken (data on WeBS will be relied upon to provide up to date data on wintering birds). It is also proposed that an updated Lichen Survey will be carried out.

An Ecological Impact Assessment (EclA) will then be undertaken in accordance with the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater and Coastal 2016.

Following the completion of the EclA, a Habitats Regulation Assessment will then be undertaken for the designated features of the Inner Moray Firth Special Protection Area.

The Terrestrial Ecology and Ornithology Assessment will be accompanied by the following technical appendices:

- Phase 1 Habitat Maps
- Habitats Regulation Assessment
- Bird Survey Data
- Phase 1 Habitat Survey
- Habitat Management Plan
- Protected Species Maps

## 6.

### Marine Ecology

The 2013 Environmental Statement summaries the baseline for marine mammals by utilising public records from the National Biodiversity Network (NBN). This provided records within 5km of the development, and within the Moray Firth Special Area of Conservation (SAC). Evidence suggests that minke whale, common dolphin, grey seal, Atlantic white-sided dolphin, harbour seal, harbour porpoise and common bottlenose dolphin are present within the zone of influence of the development. The assemblage of these marine mammals is considered to be internationally important.

#### Marine Mammal Assessments to be Scoped Out

During the preparation of the 2013 Environmental Statement, it had been widely considered that seal corkscrew injuries occurred as a result of ducted propeller vessels. However, recently it has been observed that these injuries and mortalities are the result of attacks from adult grey seals.

SNH has stated in recent correspondence to Ardersier Port Ltd (2017) that *'Whilst it has not been conclusively proven that ducted propellers do not/could not cause such injuries there is no conclusive evidence that they have caused such injuries, whereas there is direct evidence of the grey seal attacks.'*

Therefore, based on the above correspondence, the use of ducted propeller vessels is no longer considered a threat to seal populations and shall be allowed within the port.

It is therefore proposed that no further assessment work on the use of ducted propellers and potential effect on seals is required.

The assessment of effects on sharks (notably basking sharks) was scoped out of the 2013 Environmental Statement. It is proposed that the assessment of effects on shark population continues to be 'scoped out' of the EIAR. SNH species records indicate very few records of basking shark in the Moray Firth. It is also considered unlikely that their conservation status will be affected as a result of the development, and unlikely that the study area is a key resource for this species (with distribution, large aggregations, and potential breeding indicated for the west coast of Scotland). It is also considered that areas immediately adjacent to the development site are very shallow for basking shark.

#### Proposed Scope of Marine Ecology Assessment

As with terrestrial ecology and ornithology, it is considered that the baseline conditions may have changed since the 2013 Environmental Statement. Furthermore, the Chartered Institute of Ecology and Environmental Management issued revised guidance in January 2016 (Guidelines for Ecological Impact Assessment in the UK and Ireland). Given the change in assessment methodology and potential changes to baseline conditions, it is proposed that a Marine Ecology Assessment will be undertaken as part of the EIAR.

#### *Relevant Policy and Legislation*

The below policy and legislation will be referred to in the preparation of the Marine Ecology Assessment:

- Water Framework Directive
- The Marine (Scotland) Act 2010
- Salmon and Freshwater Fisheries Act 1975 (as amended)
- Scottish Biodiversity Strategy
- Highland Local Biodiversity Action Plan
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive)
- The Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) which transposes the Habitats Directive into UK law
- The Conservation (Natural Habitats &c.)(amendment) Regulations 2007
- The Conservation of Habitats and Species (Amendment) Regulations 2010 relating to reserved matters in Scotland
- The Protection of Seals (Designation of Haul-Out Sites)(Scotland) Order 2014
- Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2016)

#### *Baseline Conditions*

An initial review of existing baseline data and previous assessments of marine ecology at this location will be undertaken.

This will include a review of existing diadromous and marine fish fauna data (including known migration pathway, and distributions of sensitive spawning and nursery habitats).

This will also include a review of existing mammal data (including survey work in progress, data and reports from SNH, data from the University of Aberdeen (including the Lighthouse Field Station), and data from the Sea Mammal Research Unit (SMRU) at the University of St Andrews.

It is not considered necessary to undertake a dolphin survey as this is a well surveyed area and data can be collated from the above sources.

An intertidal ecology assessment will be undertaken and will include a review of existing data and updated site surveys.

A Habitats Regulation Assessment will be undertaken on completion of the above ecology assessment.

A Marine Mammal Protection Plan will be provided as a technical appendix to the Marine Ecology Chapter.

## 7.

### Air Borne Noise and Ground Borne Vibration

The Air Borne Noise and Ground Borne Vibration assessment contained within the 2013 Environmental Statement, assessed the likely significant noise and vibration impacts of the proposed development. A separate assessment for Underwater Noise was prepared at the request of SNH.

The Air Borne Noise and Ground Borne Vibration assessment considered potential impact of noise and vibration during construction works and on completion of the development upon the surrounding sensitive receptors.

Construction noise levels and calculations were carried out in accordance with BS 5228-1: 2009 Code of Practice for Noise and Vibration Control on Construction and Sites. This still remains valid.

Traffic noise was assessed based on the change in the prevailing noise level. This was based on the L A10 noise parameter, which is the accepted parameter for the assessment of road traffic noise. The Calculation of Road Traffic Noise (CRTN:1988) predictive methodology is used. This methodology remains valid.

This assessment was undertaken in accordance with the following legislation, policy and guidance:

- BS 5228-1: 2009 Code of Practice for Noise and Vibration Control on Construction and Sites
- Scottish Government Technical Advice Note: Assessment of Noise 2011
- Planning Advice Note 1/011 Noise
- The Environmental Noise (Scotland) Regulations 2006
- Control of Pollution Act 1974
- BS 8233: Sound Insulation and Noise Reduction for Buildings
- WHO: Guidelines for Community Noise 2000
- BS 4142: Method for Rating Industrial Noise affecting Mixed Residential and Industrial Areas

The majority of the above policy and guidance still remains relevant. An update to BS 8233 and BS 4142 was published in 2014.

A baseline noise survey was undertaken as part of this assessment in 2013. The monitoring location (residential property at Carse of Ardersier) was selected to represent the nearest noise sensitive receptors within the vicinity of the proposed development.

The Air Borne Noise and Ground Borne Vibration Assessment detailed proposed mitigation. As no changes have occurred since 2013 to the design of the scheme, baseline conditions or methodology, the mitigation proposed all remains relevant and applicable.

The 2013 Environmental Statement identified that following mitigation, the construction works would proceed with the minimum disturbance to local residents and businesses. It was also considered that there would be a negligible effect on nearby existing and proposed potentially noise sensitive receptors as a result of construction traffic noise and vibration.



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, following implementation of appropriate mitigation, it was assessed in 2013 that residual effects would be negligible.

In relation to traffic noise, the 2013 assessment concluded that as a neutral significance of effects was predicted, it is considered that no mitigation would be required. As such the residual effects associated with operational road traffic noise would be negligible.

As there has been no changes to baseline conditions or significant policy and guidance changes, it is considered that the 2013 Air Borne Noise and Ground Borne Vibration Assessment remains valid. It is considered that an updated Air Borne Noise and Ground Borne Assessment is not required.

## 8.

### Underwater Noise

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

In 2013, a study was undertaken to model the likely subsea noise levels during the dredging and vibropiling activities and the impacts this may have on key species.

The noise sources were assessed by using the Simple Propagation Estimator And Rankin (SPEAR) model and the dB<sub>ht</sub>(Species) metric. The SPEAR model uses a Source Level and Transmission to calculate impact ranges for a particular subsea noise source. The results from this are then used to compare perceived sound levels for different species, or to show the difference in sound levels from a variety of noise sources to determine which, if any, are likely to be of significance.

The baseline conditions detailed within the Underwater Noise Assessment were taken from a database of noise measurements from various noise sources and subsea activities.

The Underwater Noise Assessment undertaken in 2013, estimated that noise levels from dredging and vibropiling were not sufficient to reach the unweighted criteria where lethal effect and physical injury are expected to occur in marine species.

In 2013, impact ranges in terms of dB<sub>ht</sub> (Species) were estimated for dredging activity. The largest impact ranges are predicted for harbour porpoise, with 90 and 75 dB<sub>ht</sub> impact ranges of 21 m and 200m respectively. In general, the predicted impact ranges for marine mammals are greater than those predicted for the modelled species of fish.

The modelled dB<sub>ht</sub> (Species) levels during vibropiling activities to construct the new quay wall show that estimated sound levels for marine mammals are higher than those predicted for dredging, whereas the received levels for species of fish are of a similar level. The largest impact ranges from vibropiling are predicted for harbour porpoise with a predicted 90 dB<sub>ht</sub> impact range of 140m and 75 dB<sub>ht</sub> impact range of 1km.

In 2017, an academic study was undertaken on the impacts of piling at Nigg Bay by Graham et al. This study specifically focused on the responses of bottlenose dolphins and harbour porpoise to impact and vibration piling noise during harbour construction.

The academic study concluded that there is a lack of a strong behavioural response from bottlenose dolphins and harbour porpoise to piling activity at Nigg Bay.

Following the publication of this study, Marine Scotland asked Ardersier Port Ltd to consider this study in relation to the proposals at the former Fabrication Yard, Ardersier. On the 18<sup>th</sup> July 2017, EnviroCentre provided a response to Marine Scotland Licencing Operations Team to clarify the position in relation to noise and vibration impact at Ardersier. This clarified that the mitigation measures proposed in the 2013 Environmental Statement increased protection against the effects witnessed at Nigg Bay and conclude that no changes are required to either the proposed development or its mitigation.

The Intertidal Ecology Assessment to be prepared as part of the marine ecology chapter will include reference to underwater noise impact on mammals (based on 2013 data).

There have been no changes to the baseline data, policy or legislation or assessment methodology relating to underwater noise. The 2013 Underwater Noise Assessment and the proposed associated mitigation therefore remains valid. It is considered that an updated Underwater Noise Assessment is not required.

## 9.

### Water Environment

The 2013 Environmental Statement included a chapter on Coastal Processes. Whiteness Spit, sands and channel area to the north of the site is essentially formed of mobile sand deposits and glacial gravels. Given the changing nature of Whiteness Spit, it is proposed to include a Coastal Processes Assessment in the EIAR.

In the immediate area of the Ardersier Port and the proposed dredging area, there are three main natural heritage designations:

- Moray Firth Special Area of Conservation (SAC)
- Inner Moray Firth Special Protection Area (SPA) – this is also a RAMSAR site
- Whiteness Head Site of Special Scientific Interest (SSSI)

It is proposed that the EIAR contains a specific chapter on Water Environment. It is proposed that this chapter provides an assessment of the effects of the proposed development on the water environment and coastal processes. The assessment of the water environment would encompass hydrology, hydrogeology and water quality. Coastal processes would encompass tides, waves and sediment transport processes. A brief summary of the 2013 Flood Risk Assessment findings will also be included in this chapter

#### *Legislation, Policy and Guidance*

The following legislation, policy and guidance will be taken into consideration in the preparation of the Water Environment Chapter to be included within the EIAR:

- Water Framework Directive (2000/60/EC)
- Marine (Scotland) Act 2010
- Coast Protection Act 1949
- Water Environment (Controlled Activities)(Scotland) Regulations 2011 (as amended 2013)
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive)
- Scottish Planning Policy 2014
- UK Marine Policy Statement 2011
- Scotland's National Marine Plan 2015
- The Highland-wide Local Development Plan 2012
- Inner Moray Firth Local Development Plan 2015
- Pollution Prevention Guidelines (PPG)
- Guidance for Pollution Prevention (GPP)

#### *Baseline Conditions*

A significant amount of baseline data has been collected and survey work undertaken in relation to the Water Environment at the former fabrication yard.

The following studies and investigations have been undertaken in relation to the coastal processes around Whiteness Head:

- Whiteness Coastal Investigation and Flooding Update, April 2008. EnviroCentre Report No 3102 to Whiteness Property Company Ltd

- Geological Conservation Review: Whiteness Head, J.D. Hansom © JNCC 1980–2007. Volume 28: Coastal Geomorphology of Great Britain, Chapter 6: Gravel and 'shingle' beaches – GCR site reports (GCR ID: 1442) (<http://www.jncc.gov.uk/page-2731>).
- The Dredging Requirements for the Entrance Channel Serving McDermott's Fabrication Yard, Ardersier, Moray Firth, August 1975. Professor A.R. Halliwell, Heriot-Watt University Report to Blyth & Blyth.
- The Disposal of Dredging Spoil from the Entrance Channel Serving McDermott's Fabrication Yard, Ardersier, Moray Firth, December 1975. Professor A.R. Halliwell, Heriot-Watt University Report to Blyth & Blyth.
- Best Practicable Environmental Option (BPEO) Assessment: Sea Disposal of Solid Materials from McDermott Base Harbour, Whiteness Head, Moray, February 1998. BARMAC.
- Whiteness Head SSSI Geological Conservation Review Interest: Coastal Geomorphology, February 1996. Scottish Natural Heritage Report, Earth Science Site Documentation Series.

A Coastal Processes Investigation was undertaken by EnviroCentre Ltd in 2007 and an update to this assessment was undertaken in 2013. It is proposed that a further update will be undertaken in preparation of the EIAR.

The physical conditions around Whiteness Head have been investigated through bathymetric survey and sea bed sampling. Hydrographic surveys were undertaken in 2007, 2012 and 2017. Sea bed sampling was undertaken in 2012 and 2013. This included grab samples and borehole testing at 6 locations.

Further bathymetric survey, topographic survey and sediment sampling will be undertaken. It is proposed that grab sampling will be undertaken. A Sampling Plan will be agreed with Marine Scotland in advance of the works being undertaken.

Based on the review of present conditions, the previous assessment work undertaken would be updated.

Following the preparation of the 2013 Environmental Statement, the Scottish Government completed the National Coastal Change Assessment (NCCA). The NCCA establishes historic coastal change by comparing Ordnance Survey maps (1982 – 1905) to both the 1970's and current coastal position in order to estimate past erosion/accretion rates. These historic coastal change rates are then projected into the future using a Coastal Erosion Susceptibility Mode (CESM) to limit erosion to areas where the hinterland is susceptible to erosion. The NCCA aims to inform existing strategic planning and also identify those areas which may remain susceptible in the coming decades and require supplementary support through the development of future management policies and adaption plans robustly based on a strategic and objective evidence base. Whiteness Head is identified as an area susceptible to erosion and the sediment data collected as part of this plan will contribute to future management and adaption plans.

A Sediment Transport Monitoring Plan will be provided as a technical appendix to accompany the Water Environment Chapter of the EIAR.

Following the completion of the baseline data collection and assessment of relevant legislations and policies, an assessment of potential effects on the water environment and coastal processes will be undertaken. The assessment will follow standardised EIA procedures and will be undertaken in accordance with the principles of the 'Water Quality – Guidance standard on assessing the hydromorphological features of transitional and coastal waters' (CEN/TC 230 N 729) and the Water Framework Directive UK technical guidance.

An assessment will also be undertaken in relation to potential effects on natural heritage designations.

The proposed development works in the coastal environment that have the potential to impact on designated natural heritage sites are as follows:

- Dredge sediment to create navigation channel
- Disposal of material to land for stockpile/land raising, spit restoration and Whiteness Sands spoil ground.

Future maintenance dredge operations will be undertaken in accordance with best environmental practice.

The Water Environment Chapter will identify proposed mitigation measures and will then identify any residual effects on the water environment and coastal processes.

## 10.

### Flood Risk

A Flood Risk Assessment was initially prepared for the site in 2006. The report assessed the joint probabilities of coastal and fluvial flooding and examined a range of possible climate change scenarios to the 2080's. A Flood Risk Assessment was included within the 2013 Environmental Report.

In April 2008, a Coastal Investigation Report was prepared which detailed a hydrodynamic model developed to examine the coastal processes, wave climate and long term geomorphic stability of Whiteness Head.

The site is bounded by tidal areas to the east, north and west, whilst the South Burn boundary to the south of the site is also tidally influenced. The site itself was raised above the surrounding ground during construction in the 1970s, using material dredged during the construction process of the quay and navigation channel. Protection from waves is provided by high sand dunes and Whiteness Head. There are no records of coastal flooding on the site since the site took its present form.

The 1 in 200 year return period extreme sea water level adopted for the most recent consented development was 3.68mAOD. The SEPA prediction at that time was 3.64mAOD, which has now been revised down to 3.35mAOD.

The site is bounded to the south by a watercourse referred to as the South Burn. Historically, this watercourse has been canalised along much of its length, including the reach adjacent to the site. There are no known records of flooding on the site from this burn since the site took its present form.

The South Burn has been assessed as having a 1 in 200 year return period flow of 1.81m<sup>3</sup>/s, increasing to 2.36m<sup>3</sup>/s when allowing for a 20% increase for the potential effects of future climate change. These conditions have not changed since this original assessment was undertaken in 2006 and since the preparation of the 2013 Environmental Statement. These conditions are therefore considered to remain valid.

The 2013 Environmental Statement included an updated to the Flood Risk Assessment undertaken in 2006, to reflect more recent climate change predictions. No further updates on climate change predictions have been published since 2013.

The climate change updates considered in 2013, demonstrate that the previous levels are now considered more conservative and would provide for additional freeboard protection. The previously assessed 1 in 200 year return period event is therefore higher than the present prediction for the 1 in 1,000 year return period event.

The 2013 Flood Risk Assessment concluded that there will be no increase in flood risk to the nearby properties on the Carse of Ardersier as a result of the development. The properties are identified as being at an increased risk of flooding for the design event by the 2080's, however, this is due to the predicted increases in extreme water levels as a result of climate change. The assessment of residual effects for flood risk remain valid.

The 2013 Flood Risk Assessment was based on the most up to date published coastal flood levels. It is considered that an updated Flood Risk Assessment is not required. This has been agreed with SEPA in the Scoping Response dated 17<sup>th</sup> April 2018.



## 11.

### Socio-Economics

The Socio-Economics Chapter of the 2013 Environmental Statement addressed the potential socio-economic effects of the proposed development. This included an assessment of the relevant policy context and baseline of current socio-economic conditions.

The relevant policy included in the 2013 Socio-Economic Assessment was as follows:

- National Planning Framework 2
- Scottish Planning Policy 2012
- Highland-wide Local Development Plan 2012
- Scottish Enterprise, National Renewables Infrastructure Plan

The National Planning Framework and Scottish Planning Policy have both been updated since the 2013 Environmental Statement was prepared. The updates to these national policy documents will be addressed in the Planning Statement which will accompany the planning application submission to renew the existing in principle consent.

The Highland-wide Local Development Plan and National Renewables Infrastructure Plan have not been updated since 2013 and the assessment of this policy context remains valid.

The baseline data was taken from The Highland Council website and National Records of Scotland. This is primarily based on 2011 Census data which has not been updated since the Environmental Statement was prepared in 2013.

The Socio-Economic Assessment undertaken in 2013 concluded that the proposed development will have a major beneficial effect upon employment both during construction and once the development is operational. The proposed development has the potential to attract significant inward investment and contribute to innovation in the offshore renewable sector. The proposed development is predicted to have a major wider economic impact. It is expected that the proposed development will not generate a requirement for new infrastructure such as schools and medical facilities.

The baseline data or policy context for the Socio-Economic Assessment has not altered since 2013. The effects of the proposed development therefore remain valid. It is considered that an updated Socio-Economic Assessment is not required.

## 12.

### Summary of Proposed EIAR Content

In January 2014, planning permission in principle was granted for port and port related services at the former fabrication yard at Ardersier, Nairn. It is Ardersier Port Ltd's intention to submit a planning application to renew the existing in principle consent.

The marine license for marine construction works expired in March 2018 and the marine licence for the dredging works is due to expire in May 2018. It is Ardersier Port Ltd's intention to submit new marine licence applications for the proposed construction and dredging works.

The purpose of this Scoping Report is to agree the scope of the Environmental Impact Assessment Report (EIAR) to accompany the above application submissions.

There have been no design changes or amendments to the description of works since the previous Environmental Statement was prepared in 2013.

As there have been no legislation/policy changes, changes to the assessment methodology or baseline conditions, it is proposed that no updated assessment work is required for the following environmental topics:

- Landscape and Visual Assessment
- Air Bourne Noise and Ground Borne Vibration
- Underwater Noise
- Flood Risk
- Socio-Economics

It is proposed that updated assessment work will be undertaken for the following technical chapters:

- Terrestrial Ecology
- Marine Ecology
- Water Environment

For any queries or further information, please contact Kerri McGuire, Head of Planning at Graham + Sibbald on 0141 556 5371 or [kerri.mcguire@g-s.co.uk](mailto:kerri.mcguire@g-s.co.uk).

## Appendix 1: Location Plan

Appendix 2: Approved Masterplan