Kilfinichen Pier Development

EIA Scoping Report

Prepared by [Redacted]

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Executive Summary

This scoping report has been prepared in line with Regulation 14 of the Marine Works (Environmental Impact Assessment (EIA)) Regulations 2017 to support the proposed development by Kilfinichen Estate to construct a timber loading pier in the centre of the Ardmeanach Peninsula on the west coast of the Isle of Mull. The development will be utilised to transport timber produced on the peninsula via sea. This is required as the road network is single lane and has been classified incompatible with timber haulage by Argyll & Bute Council (A&BC).

The information provided aims to give an understanding of the whole proposal; construction, operation, and reinstatement. The environment and potential impacts are discussed on a subject basis, to assess baseline conditions, highlight potential impacts, identify appropriate mitigation techniques and to determine the potential for remaining significant environmental effects and therefore the subject's inclusion in the EIA Report.

Works above the MHWS have been consented under the Town and Country Planning (Scotland) Act 1997 (Ref. No: 17/01937/PP). As such, these works are not included in this Scoping Report unless there is the potential for cumulative risks in which case these are discussed in the relevant sections.

Under Schedule 1 of the Marine Works (EIA) Regulations 2017, *'Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350tonnes'* require an EIA Report. This pier has been designed to minimise the potential of environmental aspects and as such the impacts associated with this development are limited. This is reflected in the proposed scope of the EIA. Various topics are proposed to be scoped out of the EIA process as they are not likely to have significant environmental impacts. These are:

- Land and Soil Quality
- Population, Human Health and Socio-economics
- Traffic, Access and Navigation
- Major Accidents and Disasters
- Archaeology and Cultural Heritage – Operation
- Biodiversity (Marine, Terrestrial and Ornithology) – Operation
- Resource Use and Waste - Operation

Additionally, with consideration of standard mitigation measures; additional topics are proposed to be scoped out. As the implementation of standard mitigation measures, makes them not significant, these topics are:

- Air Quality
- Archaeology and Cultural Heritage - Construction
- Biodiversity (Marine) – Construction
- Landscape and Visual
- Noise and Vibration
- Natural Resource Usage and Waste - Construction
- Water Quality and Coastal Processes

As a result, the proposed scope of the EIA Report will focus on construction impacts on the biodiversity of ornithology and otters. The project is not anticipated to have any significant impacts on these two elements however without recent baseline data this cannot be confirmed.

This approach has been taken in line with the 2017 regulations; to ensure the EIA focuses on the significant environmental effects and that the EIA Report is proportionate to the effects of the project. Mitigation measures outlined in this Scoping Report will be included in the Schedule of Mitigation (SoM) and will be implemented through the Construction Environmental Management Plan (CEMP).

Kilfinichen Estate and Affric Limited welcome a scoping opinion to allow the project to tailor the EIA Report to meet the requirements of Marine Scotland and their statutory consultees.

1 Introduction

A formal scoping opinion is sought from Marine Scotland for works conducted below mean high-water springs (MHWS) under Regulation 14 of the Marine Works (EIA) Regulations 2017 ('EIA Regulations'); to determine the scope of the EIA required to support the Marine Licence application for the proposed Kilfinichen Pier Development.

Works above mean low-water springs (MLWS) have been consented under the Town and Country Planning (Scotland) Act 1997. As discussed in Section 4.1.3 this was approved on the 23rd of October 2017.

Information on the proposed development is provided to give an understanding of the whole proposal; construction, operation and reinstatement. The environment and potential impacts are then discussed on a subject basis, to assess available baseline, recognise potential construction and operational impacts, identify appropriate mitigation techniques and to review the need for additional baseline data collection and assessment of potential effects. Section 2 of this document provides a project justification; Section 3 provides information about the development; Section 4 outlines the consenting and policy context of the development; Sections 5 to 16 consider each EIA topic in turn, prior to conclusions being drawn in Section 17.

2 Project Justification

The Ardmeanach Peninsula is accessed by a single-track road (B8035). The B8035 provides the only access to the area for tourists, residents and commercial and agricultural users. The Ardmeanach woodlands is split into three areas all adjacent to the B8035: one north, one west, and one to the east. The Ardmeanach woodlands contain approximately 1075ha of commercial timber which cannot currently be harvested and extracted due to the inability to transport the timber on the current road network. The existing forests are largely over mature and without the ability to harvest it, the value in the timber, both environmentally and financially, is reducing over time. Over mature trees are generally too big to fit through the saw mills, so are chipped or pulped instead. Of important note is that the Ardmeanach woodlands are the epicentre of the Mull *Phytopthera ramorum* outbreak, which is a notifiable disease affecting larch crops. The diseased trees are subject to plant health orders which require immediate clear felling of all trees (whether infected or not) within 250m of a diseased one. Without harvesting capabilities, diseased trees are left to rot on the ground as waste rather than being used in an environmentally sustainable way.

The majority of this timber is from the Community-owned forest at Tiroran, ~795ha. The installation of the Kilfinichen pier will allow the community timber, as well as the additional privately owned ~280ha of forest to be transported via sea, minimising the need to use the unsuitable public road network.

The B8035, is prone to failure and for this reason is restricted to 18 tonnes maximum vehicle weight. Of particular concern is the road between Ardvergnish and the cross roads, where the road 'floats' on peat. There is real risk that this stretch could fail completely, leaving residents stranded. Upgrades to the road would cost a minimum of £900k (geogrid surfacing ~£90-105/m. (x 5.8km) and £10k per passing place (38 of)) and would cause major disruption to road users. Argyll and Bute Council (A&BC) have deemed the road infrastructure unsuitable for use

by timber lorries and have placed a prohibition on any timber haulage over the B8035 due to the deterioration of the road. Even if the road could take the weight of the timber lorries, the use of the roads by timber lorries would give rise to significant congestion on this single tracked road, especially in the summer periods.

There is a similar timber loading facility in Loch Scridain at Pennyghael however, with the current road conditions (weak culverts, bridges and verges) and the ban of the use of the B8035 by timber lorries there is no possibility to access the Pennyghael loading facility. It is proposed that in an attempt to improve resource efficiency the floating infrastructure (linkspan and barge) will be shared between the two sites.

3 Proposed Development

3.1 Location

Kilfinichen is located in the centre of the Ardmeanach Peninsula on the west coast of the Isle of Mull. The Peninsula incorporates approximately 1075ha of plantation to the north, east and west of the development. The proposed pier location is central to the forestry blocks and has a grid reference of NM 4986 2829 (Figure 44.02.01).

The Kilfinichen Pier development falls within the boundaries of the A&BC. It is delineated in Figure 44.02.02 which shows the solid redline boundary associated with the marine component of this development and hence the main scope of this document. The dotted red line also included in Figure 44.02.02 shows the terrestrial, pre-approved component of the development for an understanding of cumulative impacts. The development lies within an existing anchorage adjacent to a stone slipway and boathouse. The existing anchorage is home to a variety of vessels on swinging moorings. Upon completion of the development these vessels will be moored alongside the pontoon incorporated into the design.

3.2 Project Description

The Kilfinichen Pier development comprises of the following main components (Figure 1570-106):

- Stacking area and reclaimed pier; and
- Floating linkspan and barge; and
- Pontoon.

The development is similar to the facility in Pennyghael on the opposite shore of Loch Scridain which was constructed in 2012. Due to the unsuitable road network there is no transport link between these sites. To enhance the sustainable design of the development the proposal is to share the floating pier and linkspan between Pennyghael and Kilfinichen.

3.2.1 Project Phases

3.2.1.1 Construction

Stacking Area and Reclaimed Pier

The shoreside works, which are already approved under the Town and Country Planning (Scotland) Act 1997, comprises of the construction of a laydown area for stacking timber. The

rock extracted to create a level area for timber stacking will be used for the construction of the pier causeway. The rock armoured causeway will be 130m long and have a 60m L-shaped return to provide protection to a 30m long pontoon. It is proposed that the rock will be predrilled and split by excavator mounted hydraulic breaker to create the majority of the armour sized stones. The remaining rockfill and armour stone will be obtained from a local forestry borrow pit. It is not anticipated that any causeway material will be required from outwith the immediate area.

The rockfill will be placed from the shore working outwards. The rock armour layers will be placed by excavator machine with grab attachment as the structure extends outwards.

Floating linkspan and barge

On completion of the rock bund and armouring, the concrete foundation for the floating linkspan will be poured in situ. In addition, two concrete jack up pads will be set into the toe of the causeway to allow for the installation and removal of the linkspan and loading barge.

Pontoon

The existing anchorage into which the pier will extend is currently home to a number of boats on swinging moorings. Since these will need to be removed a small floating pontoon (already in use at the site) will be re-located and incorporated into the pier.

A small concrete shoreblock will be constructed on the L-shaped return to provide foundation for the pontoon gangway access at the head of the pier. The 30m length of pontoons will be installed with chain and anchor moorings.

3.2.1.2 *Operation*

This development will allow the shipping of 376,000 tonnes of timber per harvest cycle, by sea, for all forestry from the Ardmeanach Peninsula. The pier will transport approximately 9,250 tonnes of timber per year. Its sheltered location means that the site will permit vessels of up to 3,500 tonnes to load all year round in various weather conditions. Timber will be stacked in the laydown area prior to being loaded onto the vessel for transport by sea to United Kingdom (UK) and European destinations.

3.2.1.3 *Demolition/Reinstatement*

There are no future plans to discontinue use of this site, therefore, it is not considered necessary to plan for demolition and reinstatement works for closure of this site. The Crown Estate Scotland lease runs for 99 years from 2018.

The pier approach has been designed to accommodate a floating pier and linkspan. In between timber harvests cycles, the floating pier will be disconnected and utilised at other sites such as Pennyghael.

4 Consenting and Policy Context

4.1 Consenting Permitting and License Process

4.1.1 Marine Licence

A number of activities listed under Part 4, Section 21 of the Marine (Scotland) Act 2010 [Scottish Parliament, 2010], require a Marine Licence issued by the Marine Scotland Licensing Operations Team.

Any activity involving the deposit or removal of substances or objects in the sea, either on or under the seabed, or to construct/alter/improve any works in or over the sea or on or under the seabed, under the MHWS line are all subject to marine licence according to the Acts.

The pier's sheltered location means that the site will permit vessels of up to 3,500 tonnes to load as such falling into Schedule 1 of the Marine Works (EIA) Regulations 2017 and requiring an EIA Report to support the application for a Marine Licence.

4.1.2 Marine Pre-Application Consultation

The Marine Licensing (Pre-application Consultation (PAC)) (Scotland) Regulations 2013 [Scottish Government, 2013], prescribe the marine licensable activities that are subject to PAC and in combination with the Marine (Scotland) Act 2010 [Scottish Parliament, 2010], set out the nature of the pre-application process. The Kilfinichen Pier Development falls within Regulation 4(d) as a construction activity within the marine area that exceeds 1000m^2 therefore requiring the project to go through the PAC process. Consultation has been carried out to meet the requirements of the Marine Licensing (PAC) (Scotland) Regulations 2013 and a public meeting was held on 24th August 2017 in accordance with the Regulations. At the public meeting all consultees present expressed their supported for the scheme.

4.1.3 Planning Permission

Works above MLWS have been consented under the Town and Country Planning (Scotland) Act 1997 [Scottish Parliament, 1997]. Planning approval for the development was received in 2015 (Ref. No:15/00197/PP) and there were no objections received from either the statutory consultees or local residents. However, further detailed design saw an amendment (Ref. No: 17/01937/PP) to the existing planning approval being submitted to A&BC in July 2017. This was a minor amendment to the design and orientation of the pier facility, modification to the stacking area and rock causeway and a revised vehicle access to further reduce the use of the public highway. This amendment was approved on the 23rd of October 2017.

4.1.4 European Protected Species Licence

If it is determined that the construction activities associated with this development will likely affect European Protected Species (EPS) listed under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) [UK Government, 1994]; which includes dolphins, harbour porpoises and European otters; an EPS Licence will be required. It is recognised that an EPS licence will only be granted if it is proved that:

1) *The project is on Imperative Reasons of Overriding Public Interest;*
2) *There are not satisfactory alternatives; and*

3) *The proposed action must not be detrimental to the maintenance of the species at 'favourable conservation status'.*

Depending on the construction techniques there is a potential to have disturbance effects on otters, hence EPS licenses may be required.

4.1.5 Habitat Regulation Appraisal

An appropriate assessment (AA) is part of the Habitats Regulations Appraisal (HRA) process [UK Government, 1994], to be undertaken by the competent authority. It is required when a plan or project potentially affects a European Natura site. The Natura sites' network in the UK consists of Special Protection Areas and Special Areas of Conservation. An AA must demonstrate that there will be no adverse effect on site integrity. Should this requirement not be satisfied, a project would only receive consent if:

(1) *Imperative Reasons of Overriding Public Interest are proved; and*
(2) *There are not satisfactory alternatives.*

The intent is to provide appropriate information within this Scoping Report to inform if any AA's are required.

4.2 Marine Policy

In 2015, the Scottish Government released Scotland's National Marine Plan which provides a comprehensive and overarching framework for managing activities undertaken within the marine environment surrounding Scotland. The vision for the marine environment is underpinned by a series of strategic objectives. These good environmental status descriptors are outlined within the relevant sections of this document. The objectives regarding shipping, ports, harbours and ferries relevant to the project include:

- *Sustainable growth and development of ports and harbours as a competitive sector, maximising their potential to facilitate cargo movement, passenger movement and support other sectors.* [Scottish Government, 2015c].

The relevant planning policy within the Scotland's National Marine Plan to support this is:

- ***TRANSPORT 3:*** *Ferry routes and maritime transport to island and remote mainland areas provide essential connections and should be safeguarded from inappropriate marine development and use that would significantly interfere with their operation.* [Scottish Government, 2015c].

Eleven Scottish Marine Regions have been created which cover sea areas extending out to 12nm. Regional Marine Plans will be developed in turn by Marine Planning Partnerships, allowing more local ownership and decision making about specific issues within their area. The area surrounding the development will be covered by the Argyll Marine Region. This plan is not yet developed, and it will take some time to set up Marine Planning Partnerships and develop marine plans for all of the 11 regions. In the interim period, the Marine Policy Statement and the National Marine Plan will apply [Scottish Government, 2015c]. Relevant sections of planning policies, will be identified and considered through the project development process and discussed within this scoping report.

4.3 Planning Policy

The Scottish Government provides advice and technical planning information in the form of Planning Advice Notes (PANs) [Scottish Government, 2014b]. The development plan relevant to this application for consent is the Argyll and Bute Local Development Plan (AB-LDP) [A&BC, 2015] and associated supplementary guidance.

The AB-LDP was adopted in March 2015, and sets out an overarching planning policy for the A&BC, except that covered by the Loch Lomond and the Trossachs National Park Local Development Plan. Although this project is not specifically mentioned in the AB-LDP the project aligns with the plans objective "*to support the continued diversification and sustainable growth of Argyll and Bute's economy with a particular focus on our sustainable assets in terms of renewables, tourism, forestry, food and drink*" [A&BC, 2015] and "*to work in partnership with local communities in a way that recognised their particular needs to deliver successful and sustainable local regeneration*" [A&BC, 2015].

This development will allow the shipment of forestry timber from the Ardmeanach Peninsula, 750ha of which is community-owned commercial woodland.

Relevant sections of planning policies including those discussed above, will be identified, considered through the project development process and discussed within the EIA Scoping Report.

5 Air Quality and Climate Change

5.1 Policy and Guidance

Relevant guidance and information sources includes:

- 2017 Air Quality Annual Progress Report for A&BC [A&BC, 2017]
- Assessment of Dust from Demolition and Construction [Institute of Air Quality Management (IAQM), 2014];
- Air Quality Monitoring in the Vicinity of Demolition and Construction Sites [IAQM, 2012];
- Assessing Greenhouse Gas (GHG) Emissions and Evaluating their Significance [Institute of Environment and Assessment (IEMA) and Arup, 2017];
- 2015 Local Authority Carbon Dioxide Emissions [Department for Business, Energy and Industrial Strategy (BEIS), 2017];
- Mapping Carbon Emissions & Removal for the Land Use, Land Use Change & Forestry Sector [Buys, Thomson, Moxley, & Malcolm, 2014]; and
- Working at construction and demolition sites: Pollution Prevention Guideline Note (PPG) 6. [Environmental Agency, Northern Ireland Environmental Agency (NIEA) & Scottish Environmental Protection Agency (SEPA), 2012].

The Scottish government has released general policies (GEN) as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 14 Air quality:*** *Development and use of the marine environment should not result in the deterioration of air quality and should not breach any statutory air quality limits* [Scottish Government, 2015a].

5.2 Baseline

There are no Air Quality Management Areas within the A&BC area, and the region does not have any areas where pollutant levels have been exceeded or are close to exceedance levels [A&BC, 2017a].

The closest building to the development is an uninhabited farmstead that is used for livestock and farming operations. This is 25m away from the onshore elements of the development and 100m from the marine component. To west of the development, along the B8035, are two residential properties. These are between 180-210m away from the onshore elements of the development and ~260m and ~290m from the marine component. Killiemore House is North West of the development, ~200m (~270m from the marine component). These three properties are owned by Kilfinichen Estate, the developers of this project. The closest residential property not associated with the estate is ~620m West of the development.

Monitoring of Nitrogen Dioxide (NO_2) was conducted in Oban, which is ~36km away from Kilfinichen, during 2016. This is the closest major settlement to Kilfinichen, for this reason the most likely to contain high levels of NO_2. Results from this monitoring and previous monitoring indicate that NO_2 was below the annual mean NO_2 objective of 40ug/m^3. Modelling of background NO_2 suggests the area around Kilfinichen would be below 2ug/m^3 [A&BC, 2016]

AB&C did not monitor for Particular Matter (PM)10 or 2.5 within the 2017 report. Modelling of PM10 was undertaken however and suggests an annual mean concentration of 7-8ug/m^3 around the proposed Kilfinichen Pier development [A&BC, 2016].

Background air emissions levels are not expected to be high at Kilfinichen as there is limited urbanisation and development on the Isle of Mull. "Scotland has the second largest sink of Land Use, Land Use Change and Forestry per capita emissions (-1.0 t carbon dioxide (CO_2) per person) due to forest land occupying a large proportion of land area" when compared to the twelve regions within the UK [BEIS, 2016]. According to the local authorities 2015 data, the transport CO_2 emissions per capita on the Isle of Mull is between 2.2-2.9 tonnes. The local authorities 2015 data of industrial and commercial emissions on the Isle of Mull is >2.9tonnes CO_2 per capita [BEIS, 2017]. These emissions are at the higher end of the scale however this is likely to be linked to the small population and large number of visitors.

Baseline figures have been estimated for road transport of the timber to provide an appropriate comparison to be drawn if this was undertaken. For transport of the 795ha Tiroran timber plantation to Fishnish, CO_2e emissions are estimated to be 696tonnes of CO_2. Transport by road to the nearby Pennyghael has been estimated at 187tonnes of CO_2. These CO_2 emissions are for the one-off extraction of the timber and do not include future plantations at Tiroran or harvests from Derereach, Ton Fuar and Scobul Woodlands. These figures have been provided for reference as the option of road transport is not possible due to the unsuitability of the road network (Section 2) but they clearly represent a benefit to the locality if an alternative to road transport is adopted.

5.3 Potential Construction Impacts

5.3.1 Dust

Dust has the potential to impact human health through inhalation of particles and dust particles in eyes and vegetation by covering the leaves of plants preventing photosynthesis. Dust can also cause a nuisance by coating surfaces such as cars and windows. Within the marine area there is a small area of earthworks required for the installation of the pier area, ~8,000m^2. This total area includes the lower section of the rock pier that will be constructed underwater and therefore not resulting in dust emissions. It is estimated that ~5,000m^2 of the area would be above the MLWS and therefore susceptible to creating dust. Under the Air Quality Monitoring in the Vicinity of Demolition and Construction Sites [IAQM, 2012] this development is classified as low to medium magnitude for earthworks (Table 5.1). The classification for demolition, construction and track out are not applicable or low.

Table 5.1: Kilfinichen and Medium Magnitude Dust Emissions [IAQM, 2012]

	Kilfinichen (approximations)	Earthworks Medium
Earthworks area	5,000m^2 above the MLWS (+6,700m^2 terrestrial area)	2,500m^2-10,00m^2
Soil Type	Rock and gravel	Silt
Heavy earth moving vehicles	4	5-10
Material movement	15,000 tonnes	20,000– 100,000 tonnes

The production of dust has been minimised by utilising the loose material from the stacking area in the construction of the pier. As a result, the transport of loose material is reduced, reducing the dust caused by; vehicle movement, material transport, the creation of additional open areas and double handling of material. If additional material, rock and gravel, is required from the forestry borrow pit this will be transported to site via a wheeled dumper. This is not expected to be significant and is included in the total material moved outlined in Table 5.1.

Vehicle movement along the pier during construction has the potential to cause dust, however this will be minimal as the only access to this area would be for the purpose of construction and speeds would be very low. Dust/mud track-out onto the public roads is not expected to be an issue as earthmoving equipment will predominantly be confined within the larger boundary of the development site. High wind weather events have the potential to spread dust as it blows over the open area.

Earthworks for the marine development are not being carried out within close proximity of human receptors, the closest residential property not associated with the Estate is ~620m west of the development. This is greater than 350m as outlined in Step 1 of the Guidance on the Assessment of Dust from Demolition and Construction [IAQM, 2014] as such an assessment of construction dust is not believed to be required.

5.3.2 Climate Change

There are likely to be a small amount of GHG emissions associated with the construction of the Kilfinichen Pier. This is a result of the burning of fossil fuels by plant and equipment to aid

with construction. This is not perceived to be significant as only four pieces of earthmoving equipment are required during the construction period. Additionally, the three workers are likely to be sourced locally and encouraged to carshare.

5.4 Potential Operational Impacts

5.4.1 Dust

The road along the pier will be surfaced with type 2 gravel and the edges of the pier armoured by rock, hence limiting the exposed ground and in turn the potential for dust.

5.4.2 Climate Change

The operation of the pier is expected to positively impact on climate change through the reduction in GHG emissions when compared with road haulage. All timber from the Isle of Mull is required to leave the Island by vessel as such even without this development sea transport will be required. The nearest possible pier site is Pennyghael which requires 7 miles (14 mile round trip) of road transport, producing 21.08kg of CO_2e each round trip (based on 1.238kgCO_2e/mile for 0% laden and 1.774kgCO_2e/mile for 100% laden of a >17tonnes diesel Heavy Goods Vehicle (HGV) [DECC, 2016]). For the extraction of the Tiroran woodlands, 74% of the total woodlands, that equates to 187.4tons of CO_2. By loading the timber at the proposed Kilfinichen Pier rather than relying on road transport this additional production of GHGs is removed as the sea transport is required regardless of the development. For this reason, sea transport is not considered to be an increase in emissions.

The potential for flooding (which may be associated with climate change) is discussed under Water Quality and Coastal Processes in Section 13.

5.5 Mitigation Measures

The following mitigation measures will be employed to reduce dust and GHG emissions during construction and operation:

- Dust suppression in line with PPG6 (e.g. sprinklers and water trucks) will be used in open areas and stockpiles as appropriate [Environmental Agency, NIEA & SEPA, 2012];
- If dust complaints are received during operation, investigation into surfacing the pier will be undertaken; and
- Plant, vehicles and vessels will be well maintained.

5.6 Proposed Environmental Impact Assessment

Due to the size of the area and limited material movement, the potential impacts outlined in Sections 5.3 and 5.4 and the mitigation measures (Section 5.5) it is proposed that air quality and climate change is scoped out of the EIA process. The mitigation measures outlined in Section 5.5 will be included in the SoM and the CEMP to ensure they are successfully implemented.

6 Archaeology and Cultural Heritage

6.1 Policy and Guidance

Relevant policy, guidance and information sources includes:

- PAN 2/2011: Planning and Archaeology [Scottish Government, 2011b];
- Managing Change in the Historic Environment: Setting [Historic Environment Scotland, 2010]; and
- PastMap [Historic Environment Scotland, 2017].

6.2 Baseline

There are no known features of archaeological importance within the red line boundary. No schedule monuments, conservation areas, world heritage sites or inventory battlefields are within 2km of the project area [Historic Environment Scotland, 2017].

There are two listed buildings within a 2km radius of the Kilfinichen development, these are Killiemore House and Kilfinichen Church House [Historic Environment Scotland, 2017].

Killiemore House is a Listed building (Category B) ~200m from the site, grid reference NM 49733 28566. This was the '*seat of Dugald Maclachlan of Killiemore in 1840s*' [Historic Environment Scotland, 2017].

Kilfinichen Church House is a listed building (Category C) ~620m from the site, grid reference NM 49211 28586. '*The former Kilfinichen Kirk was built in 1804 to replace the earlier medieval Kilfinichen Church and burial ground, the remains of which are located a short distance to the east. It is a good survival of a small, traditional parish church in the Gothic Revival manner with pointed-arch windows and a fine moulded stone birdcage belfry. Now converted to a private dwelling with a pitched-roof extension added to the west gable in 1998, it continues to evidence the period in which it was built and makes a contribution to this remote, scenic and sparsely populated area of Mull*' [Historic Environment Scotland, 2017].

There are five recorded Canmore Site within a 500m radius of the Kilfinichen Pier development, outlined in Table 6.1. Canmore does not signify an area of archaeological importance but provides an online catalogue for national records of various places throughout Scotland. There are no recorded Canmore Maritime sites within 500m of Kilfinichen Pier development.

Table 6.1: Canmore Marine and Terrestrial Sites [Historic Environment Scotland, 2017]

Site Name	Site Number	Classification	Distance	Description	GRID.
Kilfinichen	NM42NE 33	Boathouse (19th Century)	50m	No information – Images available.	NM 49792 28331
Eilean Na H-ordaig	NM42NE 2	Dun (Period Unassigned)	150m	Roughly circular on plan, the dun measures approximately 18m in diameter within a dry-stone wall from 2.7m to 4.3m thick. The wall now appears as a largely grass- covered stony bank, which stands at least 2m above the level of the interior.	NM 4976 2811
Killiemore House	NM42NE 25	House (Period Unassigned)	250m	As above (Killiemore House) - Images available.	NM 49733 28566
Kilfinichen Old Parish Church	NM42NE 1	Cemetery, Church and Cross (Period Unassigned)	250m	The scanty remains of this medieval church stand in a churchyard became derelict during the century after the Reformation. By the 18th Century its walls were reduced to their lowest courses, and they are partially overlain by private burial-enclosures of that period. The surviving masonry is now grass-covered.	NM 4962 2846
The Dorran	NM42NE 18	Farmstead (Period Unassigned)	400m	A farmstead, one partially roofed, two roofed buildings and one enclosure.	NM 4944 2848

6.3 Potential Construction Impacts

As there are no known areas of archaeological significance within the boundary of the site and a substantial distance between the project site and any areas of archaeology or cultural interest; no significant impacts are expected. Previously unknown remains could be discovered during the construction works, however this is deemed unlikely due to size of the development, the fact that no dredging or pilling is occurring, and the lack of known sites discovered within the marine environment.

Potential impacts of the construction and site works to heritage sites include vibration resulting from construction on the integrity of the structures (Section 11) and visual impacts on the ambiance of the heritage sites (Section 8). Both of which are unlikely as discussed in Sections 11 and 8 respectively.

6.4 Potential Operation Impacts

No additional cultural and archaeological impacts are likely to be associated with the operation of this development as pier operation is not associated with significant levels of additional disturbance, noise or vibration.

6.5 Mitigation Measures

A protocol for archaeological discoveries will be included within the CEMP to ensure it is utilised in the unlikely event of an archaeological find.

6.6 Proposed Environmental Impact Assessment

It is proposed that archaeology and cultural heritage is scoped out of the EIA process due to the lack of significant sites within the vicinity of the project area (Section 6.2) and the minimal impacts to these sites as a result of the project (Section 6.3 and 6.4).

7 Biodiversity and Nature Conservation

7.1 Policy and Guidance

Relevant policy and guidance includes:

- PAN 60: Planning for Natural Heritage [Scottish Government, 2008];
- Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, [Chartered Institute of Ecology and Environmental Management (CIEEM), 2016];
- Guidelines for Ecological Impact Assessment in the Britain and Ireland: Marine and Coastal, [CIEEM, 2010];
- Scottish Planning Policy [The Scottish Government, 2014b];
- Conservation (Natural Habitats, &c.) Regulations 1994 [Scottish Natural Heritage (SNH), 1994];
- Council Directive (92/43/EEC) [Office Journal of the European Communities, 1992];
- The Nature Conservation (Scotland) Act 2004 [Joint Nature Conservation Committee (JNCC), 2004].
- Handbook for Marine Intertidal Phase 1 Biotope Mapping Survey [Wyn, 2006];

- Seabird monitoring handbook for Britain and Ireland: a compilation of methods for survey and monitoring of breeding seabirds [Walsh *et al*., 1995];
- Guidance on Marine Non-Native Species [GreenBlue, 2013];
- Alien invasive species and the oil and gas industry: Guidance for prevention and management [International Petroleum Industry Environmental Conservation Association (IPIECA) & Association of Oil and Gas Producers (OGP), 2010];
- Marine Non-Native Species [SNH, 2017a]; and
- Guidance on Assigning Benthic Biotopes using European Nature Information System
- or the Marine Habitat Classification of Britain and Ireland [Parry, 2015].

The Scottish government has released GEN as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 9 Natural heritage****: Development and use of the marine environment must:*
  - *Comply with legal requirements for protected areas and protected species;*
  - *Not result in significant impact on the national status of Priority Marine Features;*
  - *Protect, and where appropriate, enhance the health of the marine area; and*
- ***GEN 10 Invasive non-native species****: Opportunities to reduce the introduction of invasive non-native species to a minimum or proactively improve the practise of existing activity should be taken when decisions are being made* [Scottish Government, 2015a].

The Scottish government has released a series of good environmental status (GES) descriptors within Scotland's National Marine Plan. These include:

- ***GES 1:*** *Biological diversity is maintained and recovered where appropriate. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.*
- ***GES 2:*** *Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.*
- ***GES 4:*** *All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.*
- ***GES 6:*** *Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected* [Scottish Government, 2015c].

7.2 Designated Sites

Statutory Designated Sites which are located within a 20km radius of the project are detailed in Table 7.1 and mapped in Figures 44.02.03 [SNH, 2017b]. These include the following designations:

- Sites of Special Scientific Interest (SSSI);
- Special Areas of Conservation (SAC); and
- Special Protected Areas (SPA).

Table 7.1: Statutory Nature Conservation Designated Sites relevant to the Tarbert harbour development [SNH, 2017b]

Site	Designation	Distance Direction	Feature Category/Feature
Cnuic agus Cladach Mhuile	SPA	250m N	Designated for its support of Golden eagle (*Aquila chrysaetos*).
Ardmeanach	SSSI	2.1km W	Designated for: • Cenomanian – Maastrichtian; • hettangian, sinemurian, pliensbachian; • tertiary igneous; • quaternary of Scotland; • maritime cliff; • montane assemblage; • subalpine calcareous grassland; • slender Scotch burnet moth (*Zygaena loti*); and • vascular plant assemblage.
Ben More - Scarisdale	SSSI	3.4km NE	Designated for mineralogy of Scotland, quaternary of Scotland, tertiary igneous and upland oak woodland
Coladoir Bog	SAC SSSI	4.7km E	Designated for blanket bog and depressions on peat substrates.
South Mull Coast	SSSI	6.5km SE 10km SE	Designated for maritime cliff, mineralogy of Scotland and tertiary igneous.
Ardmeanach	SAC	6.8km N 7.3km W	Designated for species-rich grassland with mat-grass in upland areas, tall herb communities and vegetated sea cliffs.
Gribun Shore and Crags	SSSI	7.1km NW	Designated for: • Cenomanian – Maastrichtian; • maritime cliff; • rocky slopes (includes inland cliff, rocky outcrops, chasmophytic vegetation); • permian – triassic (red beds); and • subalpine calcareous grassland.

Site	Designation	Distance Direction	Feature Category/Feature
Inner Hebrides and the Minches	SAC	7.2km (closest point) all directions.	Designated for Harbour porpoise (*Phocoena phocoena*).
Cruach Choireadail	SSSI	8.2km E	Designated for tertiary igneous.
Mull Oakwoods	SAC	9.3km NE 18.3km E	Designated for otter (*Lutra lutra*) and western acidic oak woodland.
Allt Molach	SSSI	11.5km E	Designated for tertiary igneous.
Ardtun Leaf Beds	SSSI	12km W	Designated for palaeoentomology, tertiary igneous and tertiary palaeobotany.
Loch Ba Woodland	SSSI	12km NE	Designated for upland oak woodland.
Lagganulva Wood	SSSI	13km N	Designated for tertiary igneous and upland oak woodland.
Loch Sguabain	SSSI	13km E	Designated for tertiary igneous.
Ardalanish Bay	SSSI	15km SW	Designated for Caledonian igneous and moine.
Ardura – Auchnacraig	SSSI	16.5km E	Designated for marsh fritillary, saltmarsh, tertiary igneous and upland oak woodland .
Staffa	SSSI	18.5km NW	Designated for Maritime cliff and breeding populations of: • Fulmar (*Fulmarus glacialis*); • Puffin (*Fratercula arctica*); and • Shag (*Phalacrocorax aristotelis*).

7.3 Baseline

The following ecological studies have been carried out to inform the baseline:

Table 7.2: Completed Baseline Surveys at Kilfinichen Pier Development Site

Title	Reference	Appendix
Otter Survey – Kilfinichen, Isle of Mull.	Pate, K. (2014)	Appendix 1

7.3.1 Marine

7.3.1.1 Benthic Habitat and Vegetation

The north-west coast of Mull has the greatest variety of habitats and corresponding richness in species, and the east coast is less diverse. In the Ross of Mull, the head of Loch Scridain there is a complex array of habitats (Connor & Little, 1998).

In 2004, Loch Scridain was identified to have a maximum biomass of 300tonnes, a nutrition enhancement and benthic impact index of 1. This means the predicted equilibrium concentration enhancement of nitrogenous nutrients arising from fish farming is <0.3µmol/l. Additionally, less than 0.3% of the seabed is predicted to be degraded by organic disposition [Gillibrand, Gubbins, Greathead & Davies, 2002; Fisheries Research Services, 2004].

A study into the benthic environment of the North and West of Scotland and the Northern and Western Isles in 2005 found that there is very little published information on biological communities around the Isle of Mull [Wilding, Hughes & Black, 2005].

7.3.1.2 Marine Mammals

The waters around the Isle of Mull are utilised by numerous marine mammal species, including both cetaceans and seals. Marine mammals are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) [Reid, Evans & Northridge, 2003]. The Inner Hebrides and the Minches is designated for the support of Harbour porpoise and surrounds the Isle of Mull. It is 7.2km at its closest point from the development [Scottish Natural Heritage, 2017b].

Several species of cetaceans occur regularly around the Isle of Mull including Risso's dolphin (*Grampus griseus*), Short-beaked common dolphin (*Delphinus delphis*), Killer whale (*Orcinus orca*), Minke whale (*Balaenoptera acutorostrata)*, White-beaked dolphin (*Lagenorhynchus albirostris*), Grey porpoise (*Halichorerus grypus*) and Harbour porpoise (*Phocoena phocoena*) [Reid, Evans & Northridge, 2003]. Populations of both Grey and Harbour seals are present around this area of the Isle of Mull throughout the year [Special Committee on Seals, 2016]. The other species are not commonly found within the area of the development but within the waters surrounding the Isle of Mull [Reid, Evans & Northridge, 2003].

Risso's dolphins, Short-beaked common dolphins, Killer whales, Minke whales and a small number of White-beaked dolphins are found North of the Isle, near Calgary and Tobermory. Killer whales and Minke whales are also found to the west of the Isle of Mull near the south coast of Tiree. Minke whales and White-beaked dolphin are found south of the Isle of Mull around the Isle of Colonsay [Reid, Evans & Northridge, 2003].

7.3.1.3 Fish

Various fish species are likely to be located in the waters surrounding the Kilfinichen Pier development, including: mackerel, sea trout and salmon, thornback rays, congers, coalfish pollock and ling.

7.3.2 Otters

European otters (*Lutra lutra*) have been identified in and around Kilfinichen [National Biodiversity Network (NBN), 2017], and are afforded protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). The Mull Oakwoods SAC is designated for the support of otters and is 9.3km NE of the development [Scottish Natural Heritage, 2017b]. An otter survey was carried out as part of the 2015 planning application (Appendix 1) and found no evidence of them at the development site. Otters may be found within the marine environment as well as the terrestrial environment.

7.3.3 Ornithology

There are 147 species of birds recorded as utilising the area within a 5km radius of the site. Of these, 27 are protected under Schedule 1 of the Wildlife and Country Act 1981 and Mute Swans are listed as an amber bird of conservation concern within the JNCC's State of the UK Birds [JNCC, 2017] (Table 7.3). However, none of these protected species have been recorded by the NBN (2017) within 1km of the site, or by SNH's geese surveys during Wetland Bird Survey counts [British Trust for Ornithology, 2017]. The Cnuic agus Cladach Mhuile SPA is designated for the support of breeding populations of Golden eagle (*Aquila chrysaetos*) and the boundary of this is 200m north of the development [Scottish Natural Heritage, 2017b].

Table 7.3: Listed Species found within 5km of the Site

Common Name	Species	Common Name	Species
Kingfisher	*Alcedo atthis*	Great Northern Diver	*Gavia immer*
Greylag Goose	*Anser anser*	Red-Throated Diver	*Gavia stelleta*
Golden Eagle	*Aquila chrysaetos*	White-Tailed Eagle	*Haliaeetus albicilla*
Scaup	*Aythya marila*	Black-Tailed Godwit	*Limosa limosa*
Purple Sandpiper	*Calidris maritima*	Crossbill	*Loxia curvirostra*
Ruff	*Calidris pugnax*	Common Scoter	*Melanitta nigra*
Dotterel	*Charadrius morinellus*	Red Kite	*Milvus milvus*
Long-Tailed Duck	*Clangula hyemalis*	Whimbrel	*Numenius phaeopus*
Whooper Swan	*Cygnus cygnus*	Osprey	*Pandion haliaetus*
*Mute Swan	*Cygnus olor*	Snow Bunting	*Plectrophenax nivalis*
Merlin	*Falco columbarius*	Greenshank	*Tringa nebularia*
Peregrine	*Falco peregrinus*	Redwing	*Turdus iliacus*
Hobby	*Falco Subbuteo*	Fieldfare	*Turdus pilaris*
Black-Throated Diver	*Gavia arctica*	Barn Owl	*Tyto alba*

* listed as an amber bird of conservation concern not under the Wildlife and Country Act 1981

7.4 Potential Construction Impacts

Works above the MLWS was consented under the Town and Country Planning (Scotland) Act 1997 (Ref. No: 17/01937/PP) on the 23rd of October 2017. As such, only when there is a cumulative impact on terrestrial biodiversity such as birds and otters have they been discussed.

7.4.1 Marine

The construction of the Kilfinichen Pier through the placement of rock and infill will result in loss of habitat within the marine environment. This loss of habitat will be confined to the boundaries of Kilfinichen Pier, 0.08ha (Figure 44.02.02). This only contributes to a 0.028% loss of the entire 28.98km^2 Loch Scridain. The benthic organisms within the boundary are the most likely to be affected with a small area around the site being disturbed by construction works.

The rocks will be placed and not dropped from height, minimising the potential for marine mammals to be injured by material movement. No pile driving or dredging will be associated with the development of the pier as such underwater noise emissions (Section 11) will be limited to rock placement. This is unlikely to cause significant injury or disturbance to fish and marine mammals. During construction, no material will be imported via marine transport hence the potential for marine mammal/boat interactions, and the introduction of non-native species is not considered a risk.

Potential construction impacts on marine fauna and habitat resulting from construction noise (Section 11), and water quality and coastal processes (Section 14.3) are discussed within the relevant section.

7.4.2 Otters

If otters are present within or in close proximity to the development footprint, they have the potential to be impacted on during construction. This could occur through loss of habitat, loss of foraging area, disturbance in migration pathways and vehicle interactions.

7.4.3 Ornithology

If area or species of ornithological significance are present within the development footprint, they have the potential to be impacted on during construction. This could occur through loss of habitat, loss of foraging area, and disturbance.

Light pollution has the potential to impact on bird movement and feeding habits however this will be minimal, with the majority of construction activity being limited to day time hours (7am-7pm).

7.5 Potential Operational Impacts

The loss of intertidal and marine habitat outlined in Section 0 will remain throughout the operation of the site. The additional rock armouring to support the pier will provide new habitat for otters and other species after construction.

All timber from the Isle of Mull is required to leave the Island by vessel as such even without this development sea transport will be required. Therefore, other than the loss of habitat, no additional impacts would be associated with the operation of the Kilfinichen Pier.

When compared to a baseline of the timber not being exported there would be a slight increase in the potential for introduced non-native species and marine mammal/boat interacts. This is not considered significant as only 8 vessels would be required to export this timber per year. Additionally, boats entering the area will be required to comply with the Wildlife and Countryside Act (1981) which makes it illegal to release, or cause an animal to be at a place outwith its native range.

Light pollution is not seen to be an issue as the site will operate during to day time hours (7am-7pm) and no permanent lighting will be installed.

7.6 Mitigation Measures

The following mitigation measures will be employed to reduce marine biodiversity impacts during construction and operation:

- Vessels coming from outside the UK will operate under the Wildlife and Countryside Act (1981).
- Visible inspection will be undertaken for marine mammals prior to dumping material on the seabed.
- Rocks will be placed from a minimal height, where practicable.

The following mitigation measures will be employed to reduce impacts on otters and ornithology during operation:

- Operating activity will be limited to day time hours (7am-7pm).
- Vehicle speed limits will be introduced within the site boundary.

7.7 Proposed Environmental Impact Assessment

7.7.1 Marine

It is proposed that construction and operational impacts on the marine biodiversity resulting from the Kilfinichen Pier development are scoped out of the EIA process. This is due to lack of significant impacts as outlined in Section 7.4.1 and 7.5 and the mitigation measures (Section 7.6) proposed. The mitigation measures outlined in Section 7.6 will be included in the SoM and the CEMP to ensure they are successfully implemented.

7.7.2 Otters

It is proposed that construction impacts on biodiversity - otters is scoped into the EIA process due to the lack of current baseline within the area and the know presence on the Isle of Mull. Significant impacts associated with the project are not anticipated (Section 7.4.2) however without a better understanding of otter activity in the area, this cannot be stated with confidence. This will include undertaking a baseline assessment of the site and surrounding area to determine the presents of otters. If present, an assessment of impacts in line with CIEEM Guidelines for Ecological Impact Assessment in the UK will be completed on otters in the surrounding area. Appropriate mitigation measures will be identified to minimise impacts.

It is proposed that operational impacts on otters is scoped out of the EIA process due to the lack of significant impacts (Section 7.5) and the mitigation measures (Section 7.6) proposed. The mitigation measures outlined in Section 7.6 will be included in the SoM and the CEMP to ensure they are successfully implemented.

7.7.3 Ornithology

It is proposed that construction impacts on biodiversity - ornithology is scoped into the EIA process due to the lack of baseline within the area and the known sensitivity within the region. Significant impacts associated with the project are not anticipated due to the size of the development (Section 7.4.3 and 7.5). However, without a better understanding of what is in

the development area this is not able to be stated with confidence. The ornithology EIA chapter will include undertaking a baseline assessment of the site and surrounding area to determine the presents of significant ornithological sites. It is proposed that two bird surveys are undertaken: one in early winter (November or December), and one approximately two months after the initial survey. This will help identify the usage of the project area primarily by wintering water birds such as the waders, divers, and ducks, although any of bird species seen during the surveys will be recorded too. This will include a full assessment of all birds utilising both the direct proposed development area, and the adjacent surroundings along the loch, following standard BTO procedures. A vantage point survey will also take place at different tidal states to assess diurnal usage of the area directly at the proposed development. Whilst on the winter bird surveys there will be an assessment of any suitable nesting habitat in the development area, which will inform whether an in-depth breeding bird survey is likely to be required or not. If a breeding bird survey is required, this would include a minimum of two survey visits to take place from early May to late June, a minimum of four weeks apart, in accordance with standard BTO breeding bird surveys. Data collected as part of the ornithological study will be included in the EIA.

If present, an assessment of impacts in line with CIEEM Guidelines for Ecological Impact Assessment in the UK will be completed on ornithology in the surrounding area and the wider effects on the designation. Appropriate mitigation measures will be identified to minimise impacts.

It is proposed that operational impacts on ornithology is scoped out of the EIA process due to the lack of significant impacts (Section 7.5) and the embedded mitigation measures (Section 7.6) proposed. The mitigation measures outlined in Section 7.6 will be included in the SoM and the CEMP to ensure they are successfully implemented.

8 Landscape, Seascape and Visual

8.1 Policy and Guidance

Relevant policy and guidance includes:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition [Landscape Institute & IEMA, 2013];
- National Scenic Areas (NSA): Scotland's finest landscapes [SNH, 2010];
- Argyll and Bute Landscape Capacity Study - Mull [Gillespies, 2009]; and
- Landscape Character Assessment Guidance for England and Scotland [Countryside Agency & SNH, 2002].

The Scottish Government has released general policies as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 7 Landscape/Seascape****: Marine planners and decision makers should ensure that development and use of the marine environment take seascape, landscape and visual impacts into account* [Scottish Government, 2015a].

8.2 Baseline

The Kilfinichen Pier Development is located ~3.5miles south of the Loch na Keal, Isle of Mull NSA. This includes a large portion of the west coast of the Isle of Mull and Loch na Keal, including the various islands within the Loch: Eorsa, Inch Kenneth, Ulva, Little Colonsay, Gometra, Staffa and the Treshnish Isles. The NSA covers a total area of 13,507ha [SNH, 2010].

NSAs are designated under Section 263A of the Town and Country Planning (Scotland) Act 1997, and are defined as "of outstanding scenic value in a national context." The legislation also states that within an NSA "special attention is to be paid to the desirability of safeguarding or enhancing its character or appearance" [SNH, 2010].

The area to the north west of the development ML5B, site, is designated as an area with high scenic quality by the Argyll and Bute Landscape Capacity Study - Mull [Gillespies, 2009]. This is approximately 78m away from the marine component of the development and adjacent to the approved stacking area. This is an area of panoramic quality and within the SNH High Stepped Basalt Landscape Character Type on the north shore of Loch Scridain, with views south and west over the loch [Gillespies, 2009].

There is an existing stone slipway adjacent to the development area that extends into Loch Scridain ~72m. This is visible from the B8035 for ~250m in either direction.

No national trails fall within the project area, although this area is known to attract tourists.

8.3 Potential Construction Impacts

During construction a 130m-long rock armoured causeway with a 60m L-shaped return will be installed from the Ardmeanach Peninsula into Loch Scridain. Additionally, a mobile 30m long pontoon and gangway will be installed on the end of the causeway. The zone of theoretical visibility (ZTV) for the full project including the marine and onshore elements are shown in Figure 44.02.04. This shows the ZTV of the site from the surrounding area taking account of screening provided by woodlands in the vicinity.

Visibility greater than 60° is limited to the immediate vicinity of the development and does not extend north of the B8035. For areas above the MHWS, visibility greater than 10° is confined to a 1km radius. Visibility above 5° does not extend further than 3km in any direction. Table 8.1 outlines the sensitive receptors, their distance from the development and their horizontal field of view of the development.

Table 8.1: Sensitive Receptors – Landscape and Visual

Landscape and Visual Receptor	Distance from development	Horizontal Field of View/ Comments
ML5B – Area of High Scenic Quality	78m	The road section of this area has visibility >60º. There is a small section (~1,000m^2) at the northern edge of the development at 50-60º The majority of this area (~66%) is between 0º -20º.
Residential*	180m	10-20º
Residential*	200m	10-20º
Killiemore House *	200m	10-20º
Kilfinichen Estate*	340m	No visibility, due to forestry and topography.
Kilfinichen Church House	620m	No visibility, due to forestry and topography.
B8035 to the north west of the development		The development can only be seen from the B8035 to the north west for a distance of 500m. After 125m this contributes to <30º. After 375m it drops to <2º. Topography and forestry prevents views of the development from further down the road.
B8035 to the north east of the development		The development can be seen from the B8035 to the north east for a distance of 4km. After 1km this only contributes to a maximum of 10º of the visual field. This drops to <5º after 2.5km.
A849	>2km south	<5º
Loch na Keal NSA	3.5km north	A small section of <2º visibility of the development can be seen from within the Loch na Keal NSA, the majority of the area is protected by topography
Loch Scridain		The development is visible from the entirety of the inner loch. At the furthest point, this extends ~6km to the south west. There is minimal visibility to the west of the development as it is protected by landmass. Visibility past the 1km point drops to <10º (with the exception of two small section which are <20º) Visibility above the MHWS on the southern side of the loch is limited to less than 5º, with the exception of two uninhabited islands

* Denotes properties owned by the developers of this project, Kilfinichen Estate.

In addition to the visual impacts associated with the timber stacking area, pier and floating linkspan and pontoon, construction vehicles will be visible. This will include two 26 tonne excavators, one 16tonne excavator and a dump truck. This is not considered significant due to the minimal number of construction equipment required and the temporary timeframe they will be required on site, 9-12months.

Piers are common feature of Mull as with many islands, the design in this case is very low lying, utilises local stone and does not include lighting masts. The marina development will be

suitable for small boats only and since the development is in an already built environment from a landscape perspective it is in keeping with the area.

Due to the lack of development on the Ardmeanach Peninsula the visual, landscape and seascape impacts associated with Kilfinichen Pier has relatively few receptors. This in combination with the size and design of the development means these impacts are not considered significant.

8.4 Potential Operational Impacts

The visual impacts associated with the installation of the pier and pontoon have been discussed in the construction section (Section 8.3) and will continue through operation. Additionally, during operation the site will be visited by a transport vessel and the loading equipment. This is not considered to be significant as they will be relatively small, do not require tugs or other assistance, including navigation lighting and their use of the facility is intermittent. In addition, because all timber has to be loaded onto and leave Mull by ship, the operations at Kilfinichen will result in a net benefit elsewhere on the island.

8.5 Mitigation Measures

The following mitigation measures will be employed to reduce visual and landscape impacts during construction and operation:

- Construction and operation works will generally be conducted between 7am to 7pm Monday to Saturday, minimising the need for lighting.
- Rock armouring will be sourced locally to ensure similar colours and geology to the surrounding environment.
- The laydown area will be installed at ~+6.5mCD which will minimise visibility from the road.
- When construction equipment is not in use it will be parked up neatly at the base of the laydown area to minimise visibility.

8.6 Proposed Environmental Impact Assessment

Taking into account the baseline information (Section 8.2) and the potential impacts mentioned in Section 8.3 and 8.4 and the mitigation outlined in Section 8.5, it is proposed that landscape, seascape and visual impacts are scoped out of the EIA process. The mitigation measures outlined in Section 8.5, will be included in the SoM and CEMP to ensure they are implemented.

9 Land and Soil Quality

9.1 Policy and Guidance

The Scotland National Planning Framework, Version Three [The Scottish Government, 2014a] has four key priorities for the Scottish Government, including '*the protection and promoting of Scotland's key environmental resources, whilst supporting their sustainable use*'.

The Scottish Planning Policy [The Scottish Government, 2014b] identifies two principles guiding policies and decisions relating to land quality. These are: '*Having regard to the*

principles for sustainable land use set out in the Land Use Strategy'; and '*Avoiding over-development, protecting the amenity of new and existing development and considering the implications of development for water, air and soil quality*.'

It is stated in the Scottish Planning Policy [The Scottish Government, 2014b] 'Valuing the Natural Environment' that '*The planning system should seek to protect soils from damage such as erosion or compaction*' and that '*Local nature conservation sites designated for their geodiversity should be selected for their value for scientific study and education, their historical significance and cultural and aesthetic value, and for their potential to promote public awareness and enjoyment*'.

The following sources of information and guidance are available:

- Sitelink website [SNH, 2017b];
- Geology of Britain Viewer [British Geological Survey (BGS), 2017a]; and
- MAREMAP: Marine Environmental Mapping Program [BGS, 2017b].

9.2 Baseline

The BGS 1:50,000 indicates the bedrock formations of Mull Lava Group - Basalt. Igneous Bedrock formed approximately 56 to 66 million years ago in the Palaeogene Period. Local environment previously dominated by eruptions of silica-poor magma. The superficial deposits are not recorded. [BGS, 2017a].

The BGS Seabed Sediment (250K) to the west of the development at the mouth of Loch Scridain indicates marine sediments, holocene (undifferentiated) – muddy sand, sandy mud and sand (seabed sediment, based on folk) [BGS, 2017b].

Designated sites of land and soil quality importance are listed in Table 7.1 (see Section 7.2). There is none within a 2km radius of the site.

9.3 Potential Construction Impacts

The construction of the pier has potential to affect the land and soil quality within the marine environment through rock, gravel and sediment deposition. However, the impact of this is minimal and associated with benthic habitat rather than soil quality (Section 7.4.1). As there is no dredging, blasting or piling associated with this project and the pier material and anchorage will be put in place in sequence, impacts will be restricted to the immediate vicinity of the development area, 0.8ha. No blasting, dredging or piling also means the impact to soil structure and till is limited.

There are additional impacts that have the potential to effect water quality as well as soil quality such as the release of hazardous materials into the marine environment, these are discussed in Section 14.

9.4 Potential Operational Impacts

No significant land and soil effects are expected during the operation of this site. There is the potential to impact soil quality through the release of hazardous materials from vehicles and vessels using the pier, however this is limited and discussed in Section 14.

9.5 Proposed Environmental Impact Assessment

Effects on land and soil structure within the marine environment associated with this development are not considered to be significant due to the lack of potential impacts during both construction and operation (Section 9.3 and 9.4). As such, it is proposed that this topic is not included in the EIA Report.

10 Population, Human Health and Socio-Economy

10.1 Policy and Guidance

Relevant policy and guidance includes:

- Health in EIA [IEMA, 2017]; and
- Scottish Index of Multiple Deprivation 2016 [Crown, 2016].

The Scottish Government has released general policies as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 2 Economic benefits****: Sustainable development and use which provides economic benefit to Scottish communities is encouraged when consistent with the objectives and policies of this Plan; and*
- ***GEN 3 Social benefits****: Sustainable development and use which provides social benefits is encouraged when consistent with the objectives and policies of this Plan* [Scottish Government, 2015a].

10.2 Baseline

The Isle of Mull is the second largest island of the Inner Hebrides, off the west coast of Scotland in the council area of Argyll and Bute. Mull is the fourth largest Scottish island and has an area of 875km^2. The population on the Isle of Mull, is ~2,800 people which increases significantly in the summer due to the influx of tourists. Much of the population, ~1,000 people, live in the capital of Tobermory which is ~27km North of the development. This town was founded as a fishing port in 1788 [Scotland Info, 2017].

The main economic sector on the Isle of Mull is tourism with ecotourism contributing to a large portion [Royal Society for the Protection of Birds (RSPB) Scotland, 2011]. There is also farming, aquaculture, fishing, and forestry.

The closest building to the development is an uninhabited farmstead used for livestock and farming operations. To the west of the development, along the B8035, are two residential properties. These are between 180-210m away from the entire development and ~260m and ~290m from the marine component. Killiemore House is North West of the development, ~200m (270m from the marine component). Further west on the B8035 is the Kilfinichen Estate and these properties are also owned by, the developers of this project.

The human health within the vicinity of the Kilfinichen site is anticipated to be above average as Mull, Iona, Coll and Tiree are ranked in the 7th decile for health domain range. This area ranks well in levels of income and education. The main issue within Kilfinichen according to the deprivation scale is linked to the geographical access and housing of the region [Crown,

2016]. The Scottish Government (2015b) links the level of deprivation to the consumption of unhealthy food, depression, anxiety and alcohol-related morbidity and mortality.

10.3 Potential Construction Impacts

It is estimated that a construction workforce of three full time employees will be required for this project, all of whom will be locally resident. During the construction period accommodation and food will also be required for any visiting off-island workforce. This will have a minimal but positive socio-economic impact on the area. Due to the scarce number of employment opportunities in this remote rural location, this will bring a short-term but materially positive benefit to the area.

The construction of this project is not likely to have any significant negative impacts to human health as a result of dust (Section 5.3.1), water quality (Section 14.3), noise (Section 11.3), visual amenities (Section 8.3) or due to a major accident or incident (Section 15). Workers' health and safety will be ensured by compliance with the Health and Safety at Work Act 1974 and other applicable legislation. The construction works will be carried out from land, no diving will be required as such the risks to the workforce are not unusually high and standard mitigation for construction works will be applicable.

10.4 Potential Operational Impacts

During operation, the project is expected to positively impact the socio economics and economics of the area as it will allow the harvest and sale of ~1,000ha of commercial woodland which cannot currently be shipped to any markets. The handling and loading of this timber will allow much-needed long term employment opportunities to the remote area. Additionally, the Tiroran woodlands contain ~160,000 tonnes of commercial timber awaiting harvesting and extraction, the majority of which is Community-owned. This project will encourage a collaborative approach to timber transport for the whole peninsular community.

Significantly, this project removes the current high risk of road failure, reduces traffic congestion and reduces the noise associated with lorry movements that would result if this project did not go ahead and timber was able to be transported along the road network.

The operation of this project is not likely to have any significant negative impacts to human health. Impacts on human health as a result of air quality (Section 5.4.1), noise (Section 11.4), water quality (Section 14.4), visual amenities (Section 8.4) and accidents and disasters (Section 15) are discussed in the relevant sections.

10.5 Proposed Environmental Impact Assessment

It is proposed that population and human health, economics and socio-economics is scoped out of the EIA process due to the lack of significant potential construction and operational impacts (Section 10.3 and 10.4) associate with the Kilfinichen development.

11 Noise and Vibration

11.1 Policy and Guidance

The standards applicable with regard to noise and vibration are:

- BS5228-1:2009(as amended): Code of practice for noise and vibration control on construction and open sites [British Standards Institute, 2014a];
- BS 4142: 2014 Methods for rating and assessing industrial and commercial sound [British Standards Institute, 2014b]
- BS7455-1: 2003 Description and Measurement of Environmental Noise [British Standard Institute, 2003];
- Technical Advice Note Assessment of Noise [Scottish Government, 2011c]; and
- PAN 1/2011 Planning and Noise [Scottish Government, 2011a].

The Scottish Government has released general policies as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 13 Noise:*** *Development and use of the marine environment should avoid significant adverse effects of man-made noise and vibration, especially on species sensitive to such effects* [Scottish Government, 2015a].

The Scottish government has released a series of good environmental status descriptors within Scotland's National Marine Plan. These include:

- ***GES 11:*** *Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.* [Scottish Government, 2015c].

11.2 Baseline

11.2.1 In-air Noise

Noise monitoring has not been formally carried out within the area, but as there is little urbanisation; the noise levels are primarily associated with natural sources; wind and waves. The main source of manmade noise throughout the year is currently a result of the farming operations at the farmstead across the road, including the use of tractors, mechanical equipment, vehicles and livestock in and around the farmstead. Additionally, due to the proximity of the road noise associated with traffic is apparent which increases in the summer months due to tourist related traffic.

The nearest property to the site is the uninhabited farmstead and as such is not considered a noise sensitive receptor. More properties exist to the West of the development along the B8035. There are five properties, human noise sensitive receptors, within 1km of the site, Table 11.1 outlines these and the distance between these and the site.

Table 11.1: Sensitive Receptors – Noise and Vibration

Noise Receptor	Distance from Marine Works	Distance from Terrestrial Works	Description
Residential*	260	180	Residential property south of B8035
Residential*	280	200	Residential property north of B8035
Killiemore House*	270	200	Residential, additional information in Section 6.2
Kilfinichen Estate*	400	340	Kilfinichen Estate comprises of three holiday properties; Derryguaig Smiddy, The Dorran and the Fisherman's Bothy.
Kilfinichen Church House	700	620	Residential, additional information in Section 6.2

* Denotes properties owned by the developers of this project, Kilfinichen Estate.

11.2.2 Underwater Noise

No data is available for underwater baseline noise levels within the Loch Scridain. The current source of underwater noise would be limited to vessel traffic entering the area and using the existing swinging moorings. Additionally, there is a pier on the other side of the Loch, ~2.6km away, that is currently used to export timber off the island. Vessels entering and leaving this area will contribute to the background marine noise levels.

11.3 Potential Construction Impacts

During construction, there is the potential for in-air noise to be generated, through the construction of the rock pier, installation of the pontoons and transportation to site and on site. This will include vehicle movement and engines, and the placement of rock armour and infill. This is not expected to significantly increase in-air noise levels and will be limited to the construction period, 9-12months.

Increase underwater noise may result from placement of rock, gravel and anchorage, the noise levels associated with these activities is not anticipated to be high enough to affect marine mammals and fish.

Minimal vibration is expected during the construction of this pier as no underwater blasting, piling or dredging is expected to occur during this development.

11.4 Potential Operational Impacts

In-air noise associated with the operation is limited to the stacking and lifting of timber, vehicle and vessel movement and engines. Vessel loading will occur intermittently ~8 times a year and is not anticipated to be a significant increase from baseline.

The operation of this site is expected to have a positive impact on in-air noise when compared to the noise associated with road transport. The introduction of the pier will remove 8,890 trips down the B8035 and A848 (for the transport of Tiroran timber to Pennyghael) and the noise associated with HGVs which would be passing a number of properties including two hotels.

Operation is expected to have a slight increase in the underwater noise through the timber vessel entering and leaving the site however this will be intermittently ~8 times a year. These vessel movements would occur if the timber was exported from the pier at Pennyghael, Fishnish, or any other site on Mull

11.5 Mitigation Measures

The following mitigation measures will be employed to reduce noise and vibration impacts during construction and operation:

- Works will generally be conducted between 7am to 7pm Monday to Saturday.
- Rocks will be placed from a minimum height, where practicable.
- Vehicles will be well maintained.

11.6 Proposed Environmental Impact Assessment

Due to the lack of sensitive receptors not associated with the estate, the lack of potential impacts laid out in Sections 11.3 and 11.4 and the mitigation outlines in 11.5; it is proposed that noise and vibration is scoped out of the EIA process. The mitigation measures outlined in Section 11.5, will be included in the SoM and CEMP to ensure they are implemented.

12 Natural Resource Usage and Waste

12.1 Policy and Guidance

Relevant policy and guidance includes:

- The Waste (Scotland) Regulations 2012 [Scottish Minister, 2012];
- The Management of Extractive Waste (Scotland) Regulations 2010 [Scottish Minister, 2010]
- Zero Waste Plan [Scottish Government, 2010]; and
- Waste Hierarchy.

The Scottish Government has released general policies as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 11 Marine Litter:*** *Developers, users and those accessing the marine environment must take measures to address marine litter where appropriate. Reduction of litter must take into account by decision makers* [Scottish Government, 2015a].

The Scottish government has released a series of good environmental status descriptors within Scotland's National Marine Plan. These include:

- ***GES 11:*** *Properties and quantities of marine litter do not cause harm to the coastal and marine environment* [Scottish Government, 2015c].

There are currently no regulations on, or pertaining to, sustainable resourcing in Scotland, outwith the public sector. However, in 2010 the Scottish Government published Scotland's Zero Waste Plan [Scottish Government, 2010], which sets out the government's vision for a

sustainable and resource efficient future. While the sustainable resourcing aspect of the vision is still to be brought into the legislation, two components of the vision include:

- *'Individuals, the public and business sectors - appreciate the environmental, social and economic value of resources, and how they can play their part in using resources efficiently.' and;*
- *'Reduce Scotland's impact on the environment, both locally and globally, by minimising the unnecessary use of primary materials, reusing resources where possible, and recycling and recovering value from materials when they reach the end of their life.'*

12.2 Baseline

The current baseline, with no timber being harvested and exported, is that no resources are being used and a sustainable resource remains untapped, with 1,070ha of commercial forestry producing circa 375,000 tonnes of timber per harvest cycle. The longer these trees remain unharvested the greater waste of recourses, as over mature plantations have limited environmental and financial value, and this continues to reduce over time. Diseased trees are left to rot on the ground as waste rather than being used in an environmentally sustainable way. Additionally, over mature trees are often too big to fit into the saw mills so are chipped or pulped instead.

The information presented in Table 12.1 is the assumed baseline if the timber was being transported via road to the pier at Pennyghael for exportation. As discussed in Section 2, this is not a feasible option due to the conditions of the roads and the ban on timber lorries using the B8035.

Table 12.1 Assumed Operational Baseline when Road Transport Required

Material	Use	Source
Bitumen	Resurfacing the road	Unknown (council)
Gravel and Sand	Repairing roads	Unknown (council)
Steel	Replacing culverts	Unknown (council)
Tyres	Road transport	Mull
Diesel	Road transport	Mull

12.3 Potential Construction Impacts

During construction and installation of the Kilfinichen Pier, materials will be required to build the pier and install the pontoons. The individual resources are outlined in Table 12.2.

Table 12.2: Construction Resources

Material	Use	Volume / Weight	Source
Rock	Armouring of the pier	12,500m^3	Laydown and adjacent Borrow Pit
Concrete	Bankseat, Pontoon base and jack-points	53m^3	Mull
Crushed rock	Infill and surfacing material	25,000m^3	Laydown and adjacent Borrow Pit
Steel	Jack-points	10t	

Rock and Infill material will be required to construct the pier. This will be sourced from the construction of the timber stacking area at the foot of the pier. In addition, infill may also be sourced from an existing borrow pit adjacent to the development. It is proposed that the rock from the stacking area will be predrilled and split by excavator mounted hydraulic breaker to create the majority of the armour sized stones. It is not anticipated that any causeway material will be required from outwith the immediate area. This reuse of material limits the impacts associated with natural resource use and the production of waste. The linkspan, barge and timber loading equipment are not considered additional resources as they are currently used at the Pennyghael pier and will be shared amongst the two piers. The pontoon is not considered an additional resource as it is currently in situ as part of the existing anchorage

A concrete foundation for the floating linkspan is required in addition to two concrete jack up pads into the toe of the causeway. A small concrete shoreblock will be required to provide foundation for the pontoon gangway access at the head of the pier.

During construction and operation water will be sourced from mains water. As the amount of construction is limited, it is not anticipated to have significant impacts on the water supply or to the surrounding environment.

During the construction phase of the Kilfinichen Pier waste will be generated from the packaging of infrastructure and onsite welfare facilities. All waste not able to be reused will be appropriately segregated to facilitate recycling. Waste removed from site will be disposed of by a licensed waste contractor in line with the waste hierarchy and The Waste (Scotland) Regulations 2012 [Scottish Minister, 2012].

The potential impacts to soil quality (Section 9.3), water quality (Section 14.3), biodiversity (Section 0) and associated with fuel usage (Section 5.3.2) resulting from the construction of the Kilfinichen are discussed within the relevant sections.

12.4 Potential Operational Impacts

During operation, the amount of resources required, and waste produced is less than that required for transporting the timber to Pennyghael via road and exporting from there. Sea transport of the timber will be required even without this development as this is the only avenue for the removal of timber from the island. As such, the operation of this pier does not introduce the requirement for additional operational resources or increase the production of waste. It does however remove the requirement to transport 9,250tons of timber per year via lorries to a pier on the other side of the Loch. This will remove the 70m^3 of fuel required to transport the Tiroran timber (74% of the woodlands) and the additional resources such as bitumen, gravel and steel required to maintain the road network.

12.5 Mitigation Measures

The following mitigation measures will be employed to reduce natural resources and waste impacts during construction and operation:

- Reuse of rock and infill material, where practicable;
- Waste hierarchy employed;
- Limited number of construction employees on site;
- Waste appropriately segregated; and
- Licenced waste disposal routes utilised.

12.6 Proposed Environmental Impact Assessment

It is proposed that natural resource usage and waste is scoped out of the EIA process due to the lack of significant potential impacts associate with the Kilfinichen Pier development (Section 12.3 and 12.4) and the mitigation measures proposed to further reduce the impacts (Section 12.5). The mitigation measures outlined in Section 12.5 will be included in the SoM and the CEMP to ensure they are implemented.

13 Traffic, Access and Navigation

13.1 Policy and Guidance

Relevant policy and guidance includes:

- PAN 75: Planning for Transport [Scottish Government, 2005];
- Transport Assessment Guidance [Transport Scotland, 2012]; and
- Guidelines for the Environmental Assessment of Road Traffic [Institute of Environmental Assessment (IEA), 1993].

13.2 Baseline

There are no traffic counters on the B8035, the road that runs along the south of the forest and adjacent to the development, so baseline data is limited. Traffic counters are found on the A849 which starts in the far south west of the island at Fionnphort and finishes at the north east of the island, in Tobermory. This is the main road on the island as such traffic on the B8035 is presumed to be less than the annual average daily flow (AADF) shown in Table 13.1 and Table 13.2.

Table 13.1: AADF Traffic counter (30943) at Fionnphort – NM395 224 [Department for Transport (DFT), 2016]

	Motorcycles	Cars Taxis	Buses Coaches	Light Goods	HGV	Total Vehicles
2012	0	351	20	65	22	458
2013	0	353	22	69	21	465
2014	0	357	22	76	22	476
2015	0	362	24	80	23	489
2016	0	374	24	85	24	507

Table 13.2: AADF Traffic counter (1130) at Craignure – NH731 337 [DFT, 2016]

	Motorcycles	Cars Taxis	Buses Coaches	Light Goods	HGV	Total Vehicles
2012	15	545	25	78	47	709
2013	15	547	27	84	47	720
2014	17	553	27	91	49	737
2015	16	562	29	97	51	755
2016	17	580	29	103	53	781

The Isle of Mull has a population of ~2,800 people with ~1,000 of these residing in the main town, Tobermory. This small population means the assumed baseline traffic of residents is

relatively small. Traffic is however largely augmented by tourists especially in the summer months.

Access to the pier utilises the B8035, which runs part way along the south side of the Ardmeanach Peninsula. This is a bituminised single access track with occasional passing bays and provides the only access to the area for agricultural deliveries, tourists, council lorries and residents. The B8035, is prone to failure and for this reason is restricted to 18 tonnes maximum vehicle weight. Of particular concern is the road between Ardvergnish and the T junction with the A849, where the road 'floats' on peat. There is real concern that this stretch could fail completely, leaving residents stranded. A&BC have deemed the road infrastructure unsuitable for use by timber lorries and have placed a prohibition on any timber haulage over the B8035 due to the deterioration of the road.

One accident has occurred within 1km of the project site in the last five years. This was a slight accident on the 8th of August 2014 to the west of the project site on the B8035 (NM4930 2855) involving two vehicles and one casualty [CrashMap, 2017].

Marine traffic within the anchorage is limited to estate and other vessels that have access to the swinging moorings and existing stone slipway. Upon completion of the development these vessels will be moored alongside the pontoon incorporated into the design while access to the existing stone pier will remain both during and after construction.

13.3 Potential Construction Impacts

Vehicle movements along the B8035 during the construction phase will be limited to those required for construction and personnel transport. The earth moving equipment used during construction will predominantly remain on site during the construction period, limiting the use of the B8035 by these vehicles. It is estimated that the majority of construction staff will be employees of the Kilfinichen estate and housed on site. On a daily basis it is anticipated that only one light vehicle will be arriving and leaving the site. Additionally, if material is required from the forestry borrow pit this will be transported by a wheeled dumber along a short (180m) section of the B8035. This will only occur should the material from the stacking area provide insufficient volume of either rock armour or infill. The Kilfinichen estate already owns and operates a new 26tonne excavator which is based on site, thus further reducing the road use for shipped in plant.

Due to the only one accident occurring in the past five years, and the limited number of additional construction vehicles it is not anticipated that during the construction of this development chances of accidents will increase.

Air emissions (Section 5.3), noise (Section 0) and visual (Section 8.3) impacts resulting from vehicle movement during operations are discussed in the relevant sections.

13.4 Potential Operation Impacts

The operation of the pier is expected to positively impact traffic and access materially when compared with road haulage. All timber from Mull is required to leave the Island by vessel and as such even without this development sea transport will be required. The nearest possible pier site is Pennyghael which requires 7miles (14mile round trip) of road transport. For the extraction of the Tiroran woodlands, 74% of the total woodlands, that equates to 8,890 trips along the B8035 and the A849, both of which are single access with passing bays. By loading

the timber at the proposed Kilfinichen pier rather than relying on road transport there will be a significant reduction in the traffic along both these roads and improved access for residents and tourists.

The sea transport is required for the extraction of the timber regardless of the development and for this reason it is not considered to be an increase in marine traffic when compared to a baseline involving Pennyghael export via road transport. The operation of this site when compared to a baseline of no timber extraction (which is unrealistic) shows there will be a slight increase in marine transport, eight vessels/year, which would otherwise need to load elsewhere on Mull. This is not considered significant.

Air emissions (Section 5.4), noise (Section 11.4) and visual (Section 8.4) impacts resulting from vehicle movement during operations are discussed in the relevant sections.

13.5 Proposed Environmental Impact Assessment

It is proposed that traffic and access is scoped out of the EIA process due to the lack of significant potential impacts associate with the Kilfinichen Pier development identified in Sections 13.3 and 13.4.

14 Water Quality and Coastal Processes

14.1 Policy and Guidance

Relevant policy and guidance includes:

- European Water Framework Directive [European Parliament, 2000];
- Water Environment and Water Services (Scotland) Act 2003 [Scottish Parliament, 2003];
- PAN 79: Water and Drainage [Scottish Government, 2006];
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 [Scottish Government, 2011d].
- Guidance for Pollution Prevention (GPP) 5: Works and Maintenance in or Near Water [Environment and Heritage Service, SEPA & Environment Agency, 2017];
- Work at Construction and Demolition Sites: PPG6 [Environmental Agency, Northern Island Environmental Agency & SEPA 2012]; and
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended): A Practical Guide [SEPA, 2017]

The Scottish Government has released general policies as part of the Scotland's National Marine Plan in favour of sustainable development and use of the marine environment which include:

- ***GEN 8 Coastal Process and Flooding****: Developments and activities in the marine environment should be resilient to coastal change and flooding, and not have unacceptable adverse impacts on coastal processes or contribute to coastal flooding;*
- ***GEN 12 Water Quality and Resource****: Developments and activities should not result in a deterioration of the quality of waters to which the Water Framework Directive, Marine Strategy Framework Directive or other related Directives apply;* and

- ***GEN 5 Transport:*** *Port and harbour operators should take into account future climate change and extreme water level projections, and where appropriate take the necessary steps to ensure their ports and harbours remain viable and resilient to a changing climate. Climate and sea level projections should also be taken into account in the design of any new ports and harbours, or of improvements to existing facilities.* [Scottish Government, 2015a].

The Scottish government has released a series of good environmental status descriptors within Scotland's National Marine Plan. These include:

- ***GES 5:*** *Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters;*
- ***GES 7:*** *Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems*; and
- ***GES 8:*** *Concentrations of contaminants are at a levels not giving rise to pollution effects* [Scottish Government, 2015c].

14.2 Baseline

The coastal water surrounding the site is classified as Loch Scridain (200064) which is a 28.98km^2 coastal water body. In 2008 this was classified as having good overall and ecological status, with a pass chemical status. This is protected under the Shellfish Growing Water Directive [SEPA, 2011]. There was a shellfish farm located ~4km north east of the development. This is currently not operational as the operators have gone into liquidation.

The groundwater body in the area is the Island of Mull (150073) which covers a total of 883.82km^2. It is classified as good overall status and is a drinking water protected area [SEPA, 2011].

To the west of the development ~1km is Abhainn Bail a Mhuilinn River (10346). This is 6.39km in length and feeds into Kilfinichen Bay. In 2008, this waterbody was classified as having a moderate overall status, with a moderate ecological status and a pass chemical status [SEPA, 2011]. This is on the other side of Kilfinichen Bay and is not likely to be impacted by the development.

No areas of potential flooding are located within the developmental footprint. The coastal water around Kilfinichen, as with all coastal areas around Scotland, has a high possibility of flooding [SEPA, 2015].

14.3 Potential Construction Impacts

Sedimentation issues may arise from the installation of the pier through the placement of infill and rock armouring. Due to the method of construction, no dredging, and the size of the development, a significant reduction in water quality due to solids in the water column is unlikely to occur. Any changes within the water quality is anticipated to be confined to the vicinity of the development and short lived.

If there is any historic contamination in the seabed, it is unlikely to be disturbance as no dredging or piling works is anticipated.

There is a potential impact to marine water quality resulting from loss of containment of materials on the pier if they reach the water. There is the potential for chemical, concrete and hydrocarbon unplanned releases into the marine environment from works in or near the marine waters. Marine contamination may also result from the surface water run off containing sedimentation and other contaminants entering the marine environment.

Abhainn Bail a Mhuilinn River is on the other side of Kilfinichen Bay ~1km from the development and is not likely to be impacted by the development.

14.4 Potential Operational Impacts

The operation of Kilfinichen Pier will require a ~7,250m^2 of infill area to be installed and protected with rock armouring. This is unlikely to alter wave direction to any noticeable extent or local geomorphological characteristics such as increasing erosion as the area is sheltered by the surrounding land masses.

As this proposal is a pier development these facilities are designed to be water compatible, and have to be located within the functional floodplain for operational reasons. Additionally, as no infrastructure has been placed on the pier or the timber staking area the impact of flooding is minimal. These design aspects have been included in Section 14.5 and will be transposed into the SoM.

No equipment will be stored on site during operation therefore the potential for loss of containment is limited. Additionally, surface water will be designed to run away from the pier and stacking area to prevent any contamination.

14.5 Mitigation Measures

The following mitigation measures will be employed to reduce water quality and coastal process impacts during construction and operation:

- Mitigation in alignment with PPG6 [Environmental Agency, NIEA & SEPA 2012]. including:
    - Correct disposal of hazardous waste and contaminated water;
    - Storage of chemicals and hydrocarbons in secondary containment, where applicable;
    - Adequate spill response equipment on site;
    - Regular maintenance will be undertaken on equipment; and
    - Designated wash down areas for concrete contaminated equipment and tools.
- Rock armour to protect the pier.
- 65cm berm along the length of the pier.
- Pier to be constructed at ~6.5mCD height.
- Floating barge and linkspan used, with loading equipment on the floating barge.
- When construction equipment is not in use it will be parked up neatly at the base of the laydown area.
- Permeable construction material used on the pier will reduce surface water.
- Surface water drainage plan, including a swale (Appendix 2).

14.6 Proposed Environmental Impact Assessment

Due to the lack of potential impacts outlined in Sections 14.3 and 14.4 and the mitigation measures (Section 14.5) it is proposed that water quality and coastal processes is scoped out of the EIA process. The mitigation measures outlined in Section 14.5 will be included in the CEMP and SoM to ensure they are successfully implemented.

15 Impacts from Major Accidents and Disasters

An initial list of major accidents/disasters was developed. These were then considered in terms of how the site location and the proposed land use may affect the risk of each disaster. Table 15.1 outlines the major accidents and disasters, the potential risk associated with location and site use and additional comments.

Table 15.1: Potential Major Accidents and Disasters

Major Accident or Disaster	Location Risk	Proposed Use Risk	Comments
Biological Hazards	N	N	**Scoped Out**
Earthquakes	N	N	**Scoped Out** The Isle of Mull has a low-medium hazard of seismic activity, peak ground acceleration of 0.04 -0.06g [BGS, 2017c]
Mass Movements	N	N	**Scoped Out**
Severe Storms	Y	N	**No additional risk as a result of this project - Scoped out** During construction, work would stop, and the site made safe. During operation, loading and unloading will only occur when safe to do so.
Severe Drought	N	N	**Scoped Out**
Severe Temperatures	N	N	**Scoped Out**
Displaced Population	N	N	**Scoped Out**
Fire	N	N	**Scoped Out** The development does not introduce any additional fire sources. Potential to reduce fire risk associated with fallen trees that are currently not able to be harvested or exported.
Flood/ Tidal Surges	Y	N	**Discussed in Water Quality and Coastal Processes (Section 14.4) - Scoped out**
Terror Attack	N	N	**Scoped Out**
Transport accidents	N	Y	**No additional risk as a result of this project - Scoped out** Only eight vessels required for the operation of the site, not anticipated to significantly increase the potential for accidents.

15.1 Proposed Environmental Impact Assessment

It is proposed that major accidents and disasters are scoped out of the EIA. It is not anticipating that the proposed development will increase the likelihood and/or consequences of a major accident occurring. A Safety Management System will be utilised throughout the construction and operation of the Kilfinichen Pier development to manage incidents and risk.

16 Cumulative Impacts

The planning permissions within the vicinity of the proposed site are outlined in Table 16.1. This considered the planning applications within the Kilfinichen Estate and Loch Scridain. Application 17/01937/PP is the approval for the development of the pier and timber stacking area associated with this Scoping Report. This has been considered throughout this document in particular the cumulative impacts associated with dust (Section 5), biodiversity (birds and otters as they are present in both environments (Section 7.3.3 and 7.3.2), visual and landscape (Section 8), noise and vibration (Section 11) and natural resource usage and waste (Section 12.6)

Due to the scale and location of the other projects outlined in Table 16.1, they are not likely to have cumulative impacts with the pier development. No marine licence applications are within Loch Scridain and as such cumulative impacts are unlikely from marine developments.

Table 16.1: Planning approvals within Kilfinichen post November 2015 [A&BC, 2017b]

Title	Address	Reference No.	Date Approved	Comments
Amendment to design and orientation of pier facility including; modification to the stacking area and rock causeway and formation of new vehicular access (Amendment to planning permission 15/00197/PP - Development of existing pier facility including formation of hardstanding area, rock causeway with jetty and upgrading of existing vehicular access).	Land South East Of Kilfinichen Tiroran Isle Of Mull Argyll And Bute PA69 6ER	17/01937/PP	23 Oct 2017	Considered throughout the relevant chapters within this document.
Erection of agricultural building for use as storage	Land South Of Speyroc Tiroran Isle Of Mull Argyll And Bute PA69 6ER	16/03044/ PNAGRI	26 Jan 2017	No cumulative impact anticipated
Formation of Access	Land East Of Killiemore (Off The B8035) Kilfinichan Tiroran Isle Of Mull Argyll And Bute	17/01727/PP	21 Aug 2017	No cumulative impact anticipated
Formation of forest track (255 metres in length) to facilitate timber haulage	Land Approx 300 Metres East Of Killiemore (Off The B8035) Kilfinichan Tiroran Isle Of Mull Argyll And Bute	17/01713/ PNFOR	25 Jul 2017	No cumulative impact anticipated
Formation of an access track	Kilfinichan Forest Tiroran Isle Of Mull Argyll And Bute	15/03345/PNFOR	07 Jan 2016	No cumulative impact anticipated
Re-equipment of mussel farm (6 x 200 metre longlines)	Killiemore Loch Scridain Isle Of Mull Argyll And Bute	17/00588/MFF	10 Apr 2017	No cumulative impact anticipated. Potential receptor (Section 14) however is not operational.

17 Conclusion

A full range of environmental aspects relating to the development of the Kilfinichen Pier development have been considered. Table 17.1 summarises the environmental aspects which are proposed to be scoped in and out of the EIA assessment process.

A scoping response is requested under Regulation 14 of the Marine Works (EIA) Regulations 2017. Under Schedule 1 of the Marine Works (EIA) Regulations 2017, *'Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350tonnes'* require an EIA Report. This pier has been designed to minimise the potential of environmental aspects and as such the impacts associated with this development are limited. This is reflected in the proposed scope of the EIA. The approach has been taken in line with the 2017 Regulations; to ensure the EIA focuses on the significant environmental risks and that the EIA Report is proportionate to the risk of the project.

Kilfinichen Estate and Affric Limited welcome a scoping opinion to allow the project to tailor the EIA to meet the Marine Scotland and their statutory consultees' requirements.

Table 17.1: Proposed Scoping for the EIA assessment

Topic	***Construction and Site Preparation***	***Operation***
Air Quality		
Climate Change		Positive
Archaeology and Cultural Heritage		
Biodiversity and Nature Conservation – Otters and Ornithology		
Biodiversity and Nature Conservation – Marine		
Landscape and Visual		
Land and Soil Quality		
Population, Socio-economics and Human Health	Positive	Positive
Noise and Vibration – Both		Positive
Resource Usage and Waste		Positive
Traffic and Access		Positive
Water Quality – Terrestrial		
Major Accidents and Disasters		

Key

	Negligible Effect – Scoped Out
	Potential Effect –Scoped out as they can be easily mitigated by measures proposed
	Potential Effect – Scoped In

18 References

A&BC (2015). AB-LDP. Retrieved from: *https://www.argyll-bute.gov.uk/ldp*

A&BC (2017a). 2017 Air Quality Annual Progress Report for A&BC. Retrieved from: *https://www.argyll-bute.gov.uk/sites/default/files/air_quality_0.pdf*

A&BC (2017b). Planning. Retrieved from: *https://publicaccess.argyll-bute.gov.uk/online-applications/search.do?action=simple&searchType=Application*

BEIS (2017). Local Authority Carbon Dioxide Emissions 2015. Retrieved from: *https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics#2016*

BGS (2017a). Geology of Britain Viewer. Retrieved from: *http://mapapps.bgs.ac.uk/geologyofbritain/home.html*

BGS (2017b). MAREMAP: Marine Environmental Mapping Program. Retrieved from: *http://www.maremap.ac.uk/view/search/searchMaps.html*

BGS (2017c). A Revised Seismic Hazard Map for the UK. Retrieved from: *http://www.earthquakes.bgs.ac.uk/hazard/uk_hazard_map.html*

British Standard Institute (2003). BS7455-1: 2003 Description and Measurement of Environmental Noise. *British Standards Institute*, London, UK.

British Standards Institute (2014a). BS EN 5228-1:2009 +A1 2014: Code of practice for noise and vibration control on construction and open sites. *British Standards Institute*, London, UK.

British Standards Institute (2014b). BS 4142: 2014: Methods for rating and assessing industrial and commercial sound. *British Standards Institute*, London, UK.

British Trust for Ornithology (2017) Site: Isle of Mull. Retrieved from: *https://app.bto.org/webs-reporting/*

Buys, G., Thomson, A., Moxley, J., and Malcolm, H. (2014). Mapping Carbon Emissions & Removal for the Land Use, Land Use Change & Forestry Sector. *Centre for Ecology and Hydrology*, UK.

CIEEM (2010). Guidelines for Ecological Impact Assessment in Britain and Ireland: Marine and Coastal. *CIEEM*, Hampshire, UK.

CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. CIEEM, Hampshire, UK.

Connor, D. & Little, M. (1998). West Scotland (MNCR Sector 13). In: Marine Nature Conservation Review. Benthic marine ecosystems of Great Britain and the north-east Atlantic, ed. by K. Hiscock, 355–370. Peterborough, Joint Nature Conservation Committee. (Coasts and seas of the United Kingdom. MNCR series.)

Countryside Agency and SNH (2002). Landscape Character Assessment Guidance for England and Scotland. *The Countryside Agency*, Gloucestershire, UK.

CrashMap (2017). Crashmap.co.uk. Retrieved from: *http://www.crashmap.co.uk/Search*

Crown (2016). Scottish Index of Multiple Deprivation 2016. Retrieved from: *http://simd.scot/2016/#/simd2016/BTTTTTT/14/-3.7633/57.5078/*

DECC (2016). UK Government GHG Conversion Factors for Company Reporting. Retrieved from: *https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2016*

DFT (2016). Traffic counts. Retrieved from: *https://www.dft.gov.uk/traffic-counts/cp.php?la=Highland*

Environmental Agency, NIEA & SEPA (2012). PPG 6: Work at Construction and Demolition Sites. Retrieved from: *http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/*

Environment and Heritage Service, SEPA & Environment Agency (2017). GPP5: Works and Maintenance in or Near Water. Retrieved from: *http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/*

European Parliament (2000). European Water Framework Directive. Retrieved from: *http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060*

Fisheries Research Services (2004). Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters: Category 1, 2 and 3 areas designated on the basis of FRS predictive models to estimate environmental sensitivity of sea lochs. Retrieved from: *http://www.ecasa.org.uk/Documents/LocationalGuidelinesfortheAuthorisationofmarineFishFarmsinScottishWaters.pdf*

Gillibrand, P., Gubbins, M., Greathead, C. & Davies, I. (2002). Scottish Executive Locational Guide for fish farming: predicted levels of nutrient Enhancement and Benthic Impact. Retrieved from: *http://www.gov.scot/Uploads/Documents/Report63.pdf*

Gillespies (2009). Argyll and Bute Landscape Capacity Study: Mull. Retrieved from: *https://www.argyll-bute.gov.uk/planning-and-environment/rural-opportunity-areas-landscape-studies*

GreenBlue (2010). Best Practice Invasive Species. Retrieved from: *https://thegreenblue.org.uk/Clubs-and-Training-Centres/Antifoul-and-Invasive-Species/Best-Practice-Invasive-Species*

Historic Environment Scotland (2010). Managing Change in the Historic Environment: Setting. *Historic Environment Scotland*, Edinburgh, UK.

Historic Environment Scotland (2017). PastMap. Retrieved from: *http://pastmap.org.uk/*

IAQM (2012). Air Quality Monitoring in the Vicinity of Demolition and Construction Sites. *Institution of Environmental Sciences*, London, UK.

IAQM (2014). Guidance on the Assessment of Dust from Demolition and Construction. *Institution of Environmental Sciences*, London, UK.

IEA (1993). Guidelines for the Environmental Assessment of Road Traffic. *IEA*, UK.

IEMA (2017). Health in Environmental Impact Assessment. Retrieved from: *https://www.iema.net*

IEMA & Arup (2017). Assessing GHG Emissions and Evaluating their Significance. *EIMA*, Lincoln, UK.

IPIECA & OGP (2010). Alien invasive species and the oil and gas industry: Guidance for prevention and management. OGP, London, UK

JNCC (2004). The Nature Conservation (Scotland) Act 2004. Retrieved from: *http://www.legislation.gov.uk/asp/2004/6/contents*

JNCC (2017). Latest figures reveal current state of UK's birds. Retrieved from: http://jncc.defra.gov.uk/page-7410

Landscape Institute & IEMA (2013). Guidelines for Landscape and Visual Impact Assessment.

NBN (2017). NBN Atlas: Explore Your Area. Retrieved from: *https://records.nbnatlas.org/explore/your-area*

Office Journal of the European Communities (1992). Council Directive (92/43/EEC). Retrieved from: *http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043*

Parry M. (2015). Guidance on Assigning Benthic Biotopes using EUNIS or the Marine Habitat Classification of Britain and Ireland. JNCC Report No: 546. *JNCC*, Peterborough, UK.

Reid, J., Evans, P. & Northridge, S. (2003). Atlas of Cetacean distribution in north-west European waters. *JNCC*, Aberdeen, UK.

RSPB (2011). Wildlife at Work: The economic impact of White-Tailed Eagles on the Isle of Mull. Retrieved from: *http://www.rspb.org.uk/Images/wildlifeatwork_tcm9-282134.pdf*

Scottish Government (2005). PAN 75: Planning for Transport. Retrieved from: *http://www.gov.scot/Publications/2005/08/16154453/44538*

Scottish Government (2006). PAN 79: Water and Drainage. Retrieved from: *http://www.gov.scot/Publications/2006/09/26152857/0*

Scottish Government (2008). PAN 60: Planning for Natural Heritage. Retrieved from: *http://www.gov.scot/Publications/2000/08/pan60-root/pan60*

Scottish Government (2010). Scotland's Zero Waste Plan. *The Scottish Government*, Edinburgh.

Scottish Government (2011a). PAN 1/2011 Planning and Noise. Retrieved from: *http://www.scotland.gov.uk/topics/built-environment*

Scottish Government (2011b). PAN 2/2011: Planning and Archaeology. Retrieved from: *http://www.gov.scot/Publications/2011/08/04132003/0*

Scottish Government (2011c). Technical Advice Note Assessment of Noise. Retrieved from: *http://www.gov.scot/Publications/2011/03/02104659/0*

Scottish Government (2011d). The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). Retrieved from: *http://www.legislation.gov.uk/ssi/2011/209/contents/made*

Scottish Government (2013). The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013. Retrieved from: *http://www.legislation.gov.uk/ssi/2013/286/contents/made*

Scottish Government (2014a). Ambition Opportunity, Place: Scotland's Third National Planning Framework. *The Scottish Government*, Edinburgh.

Scottish Government (2014b). Scottish Planning Policy. *The Scottish Government*, Edinburgh.

Scottish Government (2015a). Scotland's National Marine Plan: General Policies. Retrieved from: *http://www.gov.scot/Publications/2015/03/6517/5*

Scottish Government (2015b). The Scottish Health Survey: Volume 1. Retrieved from: *http://www.gov.scot/Topics/Statistics/Browse/Health/scottish-health-survey*

Scottish Government (2015c). Scotland's National Marine Plan: A Single Framework for Managing Our Seas. Retrieved from: *http://www.gov.scot/Publications/2015/03/6517/downloads#res-1*

Scottish Minister (2010). The Management of Extractive Waste (Scotland) Regulation. *Retrieved from: http://www.legislation.gov.uk/ssi/2010/60/contents/made*

Scottish Minister (2012). The Waste (Scotland) Regulations 2012. Retrieved from: *http://www.legislation.gov.uk/sdsi/2012/9780111016657/contents*

Scotland Info (2017). Scotland Info Guide: Isle of Mull and Iona. Retrieved from: *http://www.scotlandinfo.eu/mull-and-iona/*

SNH (1994). Conservation (Natural Habitats, &c.) Regulations 1994. Retrieved from: *http://www.legislation.gov.uk/uksi/1994/2716/contents/made*

SNH (2010). NSA: Scotland's finest landscapes. Retrieved from: *http://www.snh.org.uk/pdfs/publications/nsa/National%20Scenic%20Areas.pdf*

SNH (2017a). Marine non-native species. Retrieved from: *http://www.snh.gov.uk/land-and-sea/managing-coasts-and-sea/marine-nonnatives/*

SNH (2017b). Sitelink. Retrieved from: *https://gateway.snh.gov.uk/sitelink/searchmap.jsp#*

Scottish Parliament (1997). Town and Country Planning (Scotland) Act 1997. Retrieved from: *http://www.legislation.gov.uk/ukpga/1997/8/contents*

Scottish Parliament (2003). Water Environment and Water Services (Scotland) Act 2003. Retrieved from: *http://www.legislation.gov.uk/sdsi/2015/9780111027820*

Scottish Parliament (2010). Marine (Scotland) Act 2010: 2010 asp 5. Retrieved from: *http://www.legislation.gov.uk/asp/2010/5/contents*

SEPA (2011). RBMP Interactive Map. Retrieved from: *http://map.sepa.org.uk/rbmp/*

SEPA (2015). Flood Maps. Retrieved from: *http://map.sepa.org.uk/floodmap/map.htm*

SEPA (2017). The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended): A Practical Guide. Retrieved from: *https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf*

Special Committee on Seals, (2016). Scientific Advice on Matters Relating to the Management of Seal Populations: 2016. Retrieved from: *http://www.smru.st-andrews.ac.uk/research-policy/scos/*

Transport Scotland (2012). Transport Assessment Guidance. *Transport Scotland*, Glasgow, UK.

Walsh, P., Halley, D., Harris, M., del Nevo, A., Sim, I., & Tasker, M. (1995). Seabird monitoring handbook for Britain and Ireland. Published by JNCC / RSPB / ITE / Seabird Group, Peterborough, UK.

Wilding, T. A., Hughes, D. J. & Black, K. D. (2005). The benthic environment of the North and West of Scotland and the Northern and Western Isles: sources of information and overview. Report 1 to METOC. Scottish Association for Marine Science, Oban, Scotland, PA37 1QA.

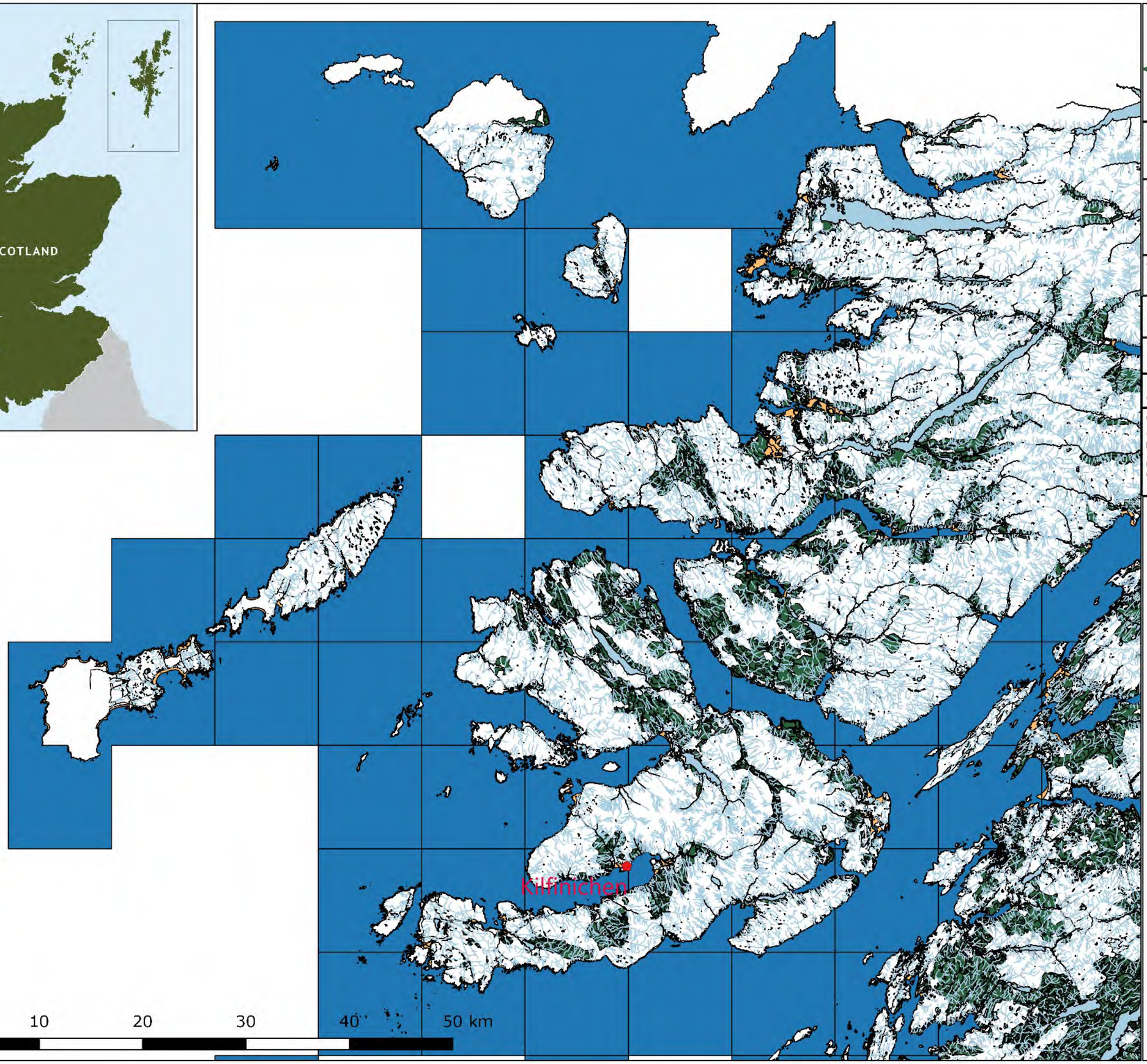
Wyn, G. (2006). Handbook for Marine Intertidal Phase 1 Biotope Mapping Survey. Countryside Council for Wales, Bangor, UK.

UK Government (1994). The Conservation (Natural Habitats, &c.) Regulations 1994. SI; 1994:2716. Retrieved from: *http://www.legislation.gov.uk/uksi/1994/2716/contents/made*

19 Acronyms

AA	Appropriate Assessment
AADF	Annual Average Daily Flow
A&BC	Argyll and Bute Council
AB-LDP	Argyll and Bute Local Development Plan
BEIS	Department of Business, Energy and Industrial Strategy
BGS	British Geological Survey
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CO_2	carbon dioxide
EIA	Environmental Impact Assessment
EIA Regulations	Marine Works (EIA) Regulations 2017
EPS	European Protected Species
GEN	General Policy
GES	Good Environmental Status Descriptors
GHG	Greenhouse Gas
GPP	Guidance for Pollution Prevention
HGV	Heavy goods vehicle
HRA	Habitats Regulations Appraisal
IAQM	Institute of Air Quality Management
IEA	Institute of Environmental Assessment
IEMA	Institute of Environment Management and Assessment
IPIECA	International Petroleum Industry Environmental Conservation Association
JNCC	Joint Nature Conservation Committee
MHWS	mean high-water springs
MLWS	mean low water springs
NBN	National Biodiversity Network
NIEA	Northern Ireland Environmental Agency
NO_2	Nitrogen Dioxide
NSA	National Scenic Areas
OGP	Association of Oil and Gas Producers
PAC	Pre-application Consultation
PANs	Planning Advice Notes
PPG	Pollution Prevention Guideline Note
PM	particulate matter
RSPB	Royal Society for the Protection of Birds
SAC	Special Areas of Conservation
SNH	Scottish Natural Heritage
SoM	Schedule of Mitigation
SPA	Special Protected Areas
SSSI	Sites of Special Scientific Interest
SEPA	Scottish Environmental Protection Agency
UK	United Kingdom

20 Figures



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Title: Kilfinichen Location.

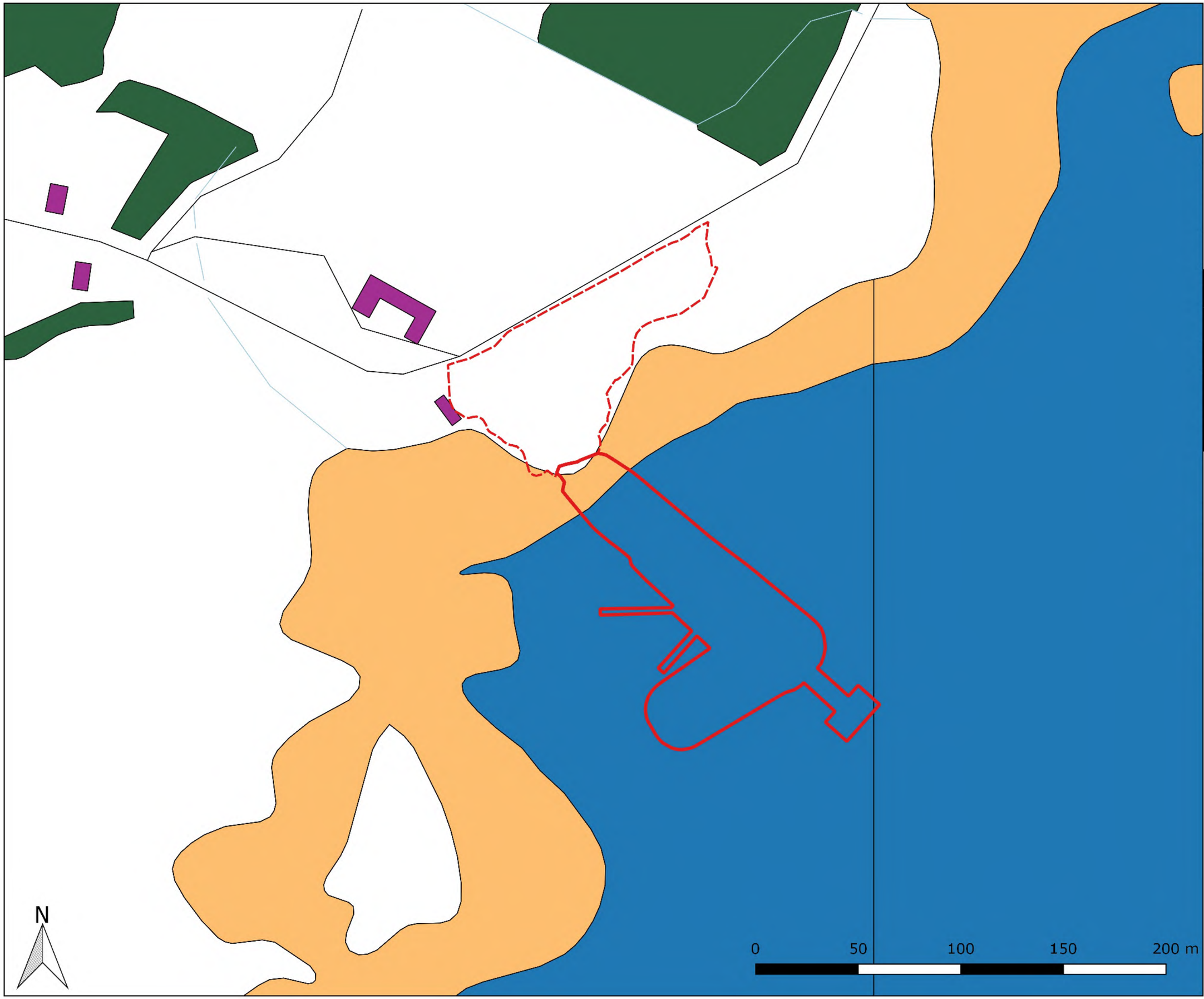
Drawing No: 44.02.01

Page 1	Rev No: 1	Drawing Date: 23/11/2017

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Kilfinichen
- Red Line Boundary
- Works Above MHWS
- Tidal Water
- Fresh Water
- Foreshore
- Buildings
- Woodland



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Title: Kilfinichen Redline Boundary

Drawing No: 44.02.02

Page 1	Rev No: 1	Drawing Date: 23/11/2017

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Red Line Boundary
- Works Above MHWS
- Road
- Tidal Water
- Building
- Woodland
- Foreshore

GENERAL NOTES

1. ALL LEVELS ARE IN METRES AND RELATE TO CHART DATUM, UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
3. ORDNANCE DATUM IS +1.85m ABOVE CHART DATUM.
4. MHWS +4.3mCD
   MLWS +0.6mCD

REV	DATE	DETAILS	DRAWN	CHK'D	APP'D
D	20.09.17	CONSENTS BOUNDARY AMENDED	JA	GB	GB
C	12.07.17	PONTOON ARRANGEMENT REVISED	JA	GB	GB
B	29.06.17	FINAL PONTOON POSITION AMENDED	JA	GB	GB
A	27.06.17	LAYOUT AMENDED	JA	GB	GB

AMENDMENTS

CLIENT

KILLIEMORE ESTATES

PROJECT

KILFINICHEN PIER

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DRAWING TITLE

SITE LOCATION PLAN

DRAWN	CHECKED	APPROVED
JR	TR	TR
DATE MAY 17	DATE MAY 17	DATE MAY 17

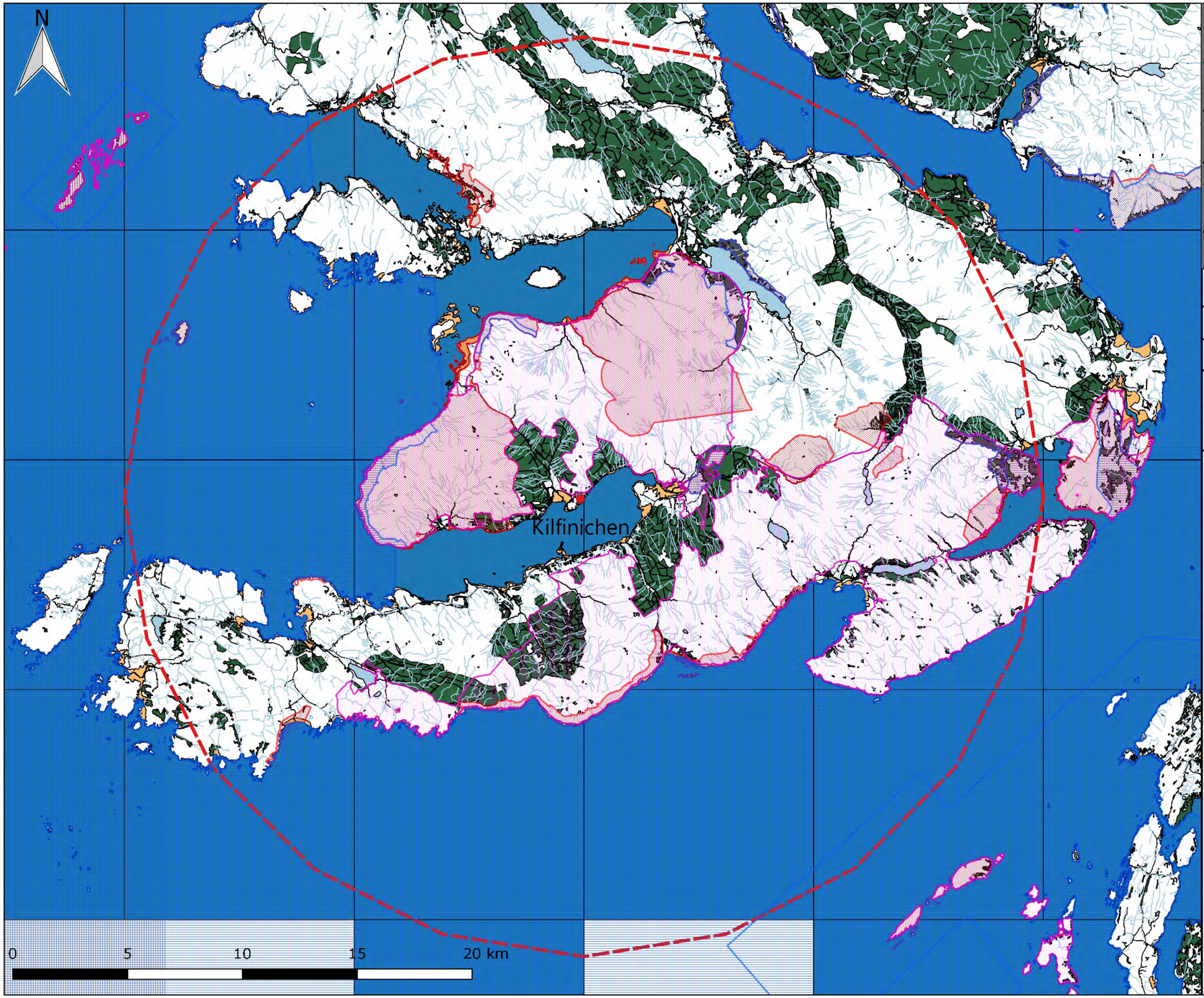
SCALE (A1) 1:1000

STAGE CONSENTS

REVISION A B C D

PROJECT No. 1570

DRAWING No. 106



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Title: Kilfinichen Designated Sites 20km

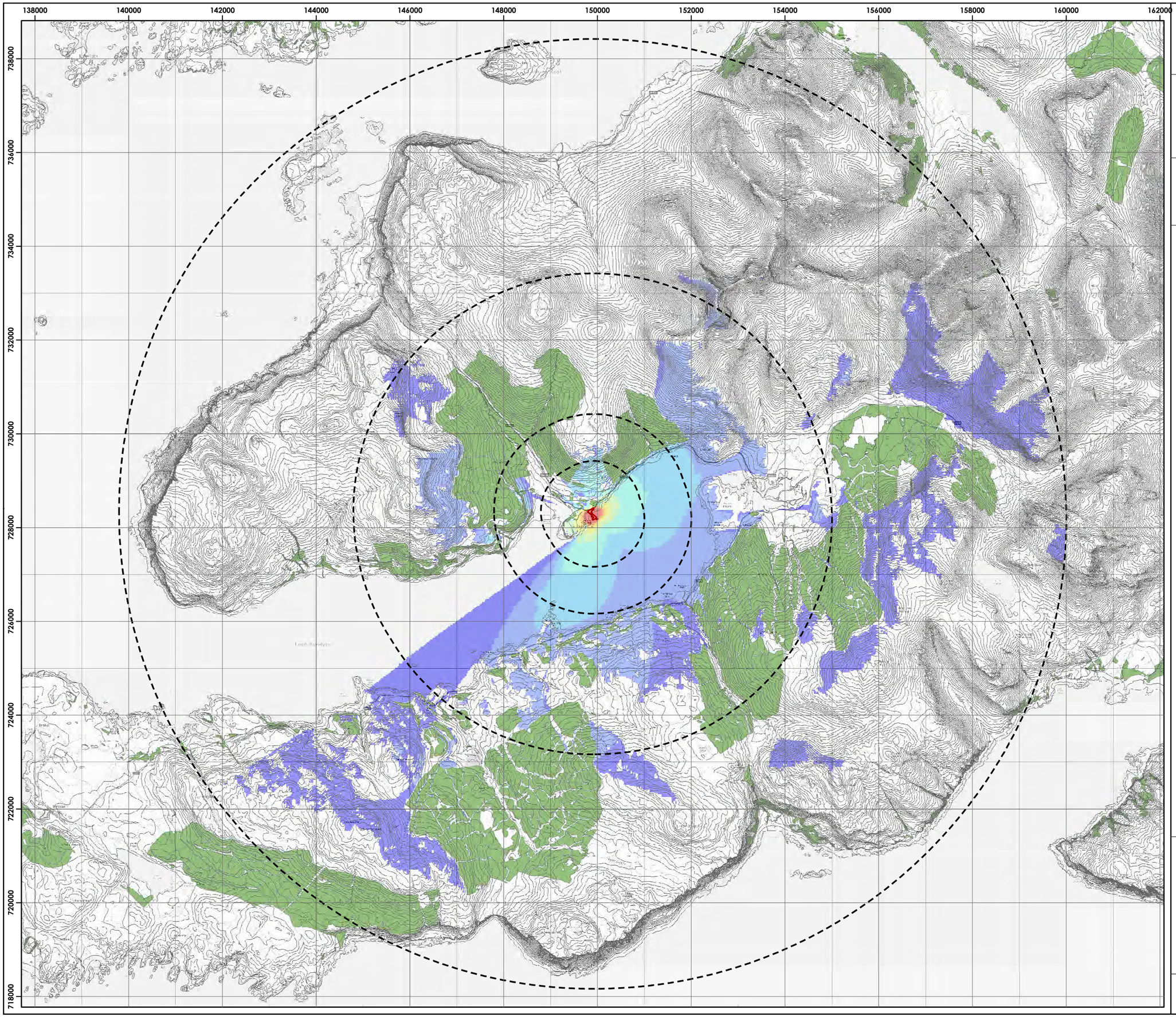
Drawing No: 44.02.03

Page 1	Rev No: 1	Drawing Date: 23/11/2017

Projection: OSGB 1936/British National Grid EPSG:27700

Legend

- Kilfinichen
- 20 km Buffer
- SPA
- SAC
- SSSI
- Tidal Water
- Fresh Water
- Foreshore
- Woodland



Kilfinichen Pier

Figure 44.02.04
Screened Zone of Theoretical Visibility

Key

- Site boundary
- 1, 2, 5 and 10 km buffers

Horizontal Field of View ZTV

- Below 2°
- 2 - 5°
- 5 - 10°
- 10 - 20°
- 20 - 30°
- 30 - 40°
- 40 - 50°
- 50 - 60°
- Above 60°
- Woodland

Pier infrastructure heights modelled as per elevations displayed on figure 1570-108.

Visibility calculated using Ordnance Survey's Terrain 50 dataset with screening effects of woodland modelled at 10m height using layers from OS OpenMapLocal data.

HFOV ZTV calculated using Windfarmer 5.2.11.0 and footprint verified with ArcGIS 10.3 Viewshed tool.

Observer eye height 2m above ground and corrections for earth curvature and atmospheric refraction applied.

0 1 2 4
Kilometres

N

Scale @ A3:
1:75,000

10/11/2017 19406/ZV/001a

Drawn by: TH Checked by: AA Approved by: TH

Appendix 1

KEP Environmental Consulting

OTTER SURVEY – Kilfinichen, Isle of Mull, Argyll & Bute

[Redacted] MA (Hons), Ecological Consultant

3rd November, 2014

Introduction

Kilfinichen Estate is proposing to apply for planning permission to build a timber causeway/pontoon at Kilfinichen in order to facilitate the transport of timber from the estate while avoiding placing undue pressure on the road network. Prior to applying for formal planning permission the estate requested a survey to establish the use of the area by otters.

Legislation

European Protected Species (EPS) are protected by the EC Habitats and Species Directive 92/43/EEC, which were translated into UK law through The Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, this was amended by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004 and 2007 and the Conservation (Natural Habitats, &c.) Amendment (No. 2) (Scotland) Regulations 2008. The European otter is a EPS and the Regulations make it an offence to deliberately or recklessly harass, capture, injure or kill or disturb the species while it is occupying a structure or place it uses for shelter or protection, to disturb it while it is rearing or otherwise caring for its young, to obstruct access to a breeding site or resting place or to otherwise deny the use of a breeding site or resting place. Disturbance of a EPS in a manner that is likely to significantly affect the local distribution or abundance of the species by impairing its ability to survive, breed or reproduce, to disturb such an animal while it is migrating or hibernating, or to damage or destroy a breeding site or resting place of such an animal is an offence. The otter is also a UK BAP species and a Local BAP priority species in Argyll & Bute.

Survey 2014

Survey Conditions

The ideal time to conduct otter surveys is when water levels are low but in this location, as is the case on most of the west cost, there can be periods of high rainfall causing water levels to change quickly. On the 22nd October when the survey was conducted the water levels were high and weather conditions were very wet and windy which are not optimal conditions for the survey.

Methods

Evidence of the presence and use of otters was searched for and, where found recorded, including: spraints, resting up sites, slides, footprints, holts and rolling areas. If resting up sites were encountered the likely frequency of use was assessed and recorded under the following: regular, breeding and temporary. Locations were recorded and a 10-figure grid reference determined by a GPS. The area surveyed extended 750 metres along the coast on either side of the boathouse structure and into the entrance of any perennial water courses.

Results

No evidence of otter activity was found.

Conclusions and Recommendations

The lack of any signs of otter activity suggest that otters are not frequenting the site at this time of the year, nor is there any evidence of permanent breeding or lying-up sites. This does not rule out the possibility of occasional use at other times of the year, but potential impacts of the proposed scheme on otters appear to be small.

Appendix 2

PLANNING PERMISSION: 17/01937/PP
KILFINICHEN PIER FACILITY – SURFACE WATER DRAINAGE PLAN

8TH NOVEMBER 2017

Over marked extract from drawing number 1570-117 - Proposed General Arrangement.