Brodick Pier Demolition

Environmental Screening Request

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25 March 2021

Caledonian Maritime Assets Limited

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1. Introduction

1.1 Project Background

Caledonian Maritime Assets Limited (CMAL) (hereafter referred to as 'the Applicant') have recently built a new ferry terminal at Brodick, and are seeking permission from Marine Scotland through a Marine Licence to demolish the old pier and ancillary structures that are no longer required (hereafter referred to as the 'proposed Project').

The Applicant is writing to request a formal Screening Opinion under Regulation 10(1) of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter referred to as 'the EIA Regulations') to demolish the old pier and ancillary structures that are no longer required. Jacobs UK Limited (hereafter referred to as Jacobs) has been appointed by the Applicant to assist with the consenting process for the proposed Project.

1.2 Purpose of this Screening Request

The purpose of this request is to seek written confirmation from Marine Scotland, as the consenting authority, that the proposed Project does not constitute an EIA project as defined by the EIA Regulations.

This Screening Request provides a description of the proposed Project including its location, the physical characteristics and the relevant environmental sensitivities of the area. It also contains a description of likely significant effects, based on currently available information, of the proposed Project on the environment resulting from the expected residues and emissions and the production of waste, where relevant; and the use of natural resources, in particular soil, land, water and biodiversity.

In addition to the information above, this screening request includes description of any features of the proposed Project, or proposed measures, envisaged to avoid or prevent significant adverse effects on the environment.

This EIA Screening Request has been prepared in accordance with the EIA Regulations. Potential impacts may arise from a proposed Project during the following stages:

- Construction: Impacts that may arise from construction activities of the proposed Project. Typically, the resulting environmental effects are short term and managed through the implementation of a Construction Environment Management Plan (CEMP).
- Operation: Impacts that may result from the operation of the proposed Project. Typically, the resulting environmental effects are long term for the operational life of the proposed scheme.

1.3 Report Structure

This EIA Screening Request comprises the following sections:

- Description of the proposed Project - summary of the proposed Project including location and construction and operational activities;
- EIA Regulations - overview of the relevant EIA Regulations and EIA screening process;
- Environmental Considerations - overview of environmental aspects considered relevant to the proposed Project;
- Screening Conclusions and Further Environmental Assessment – conclusion that the proposed Project is not an EIA project in accordance with the EIA Regulations; and
- Appendices – accompanying figures and assessment against EIA Regulations.

2. Description of Proposed Project

2.1 Site Location and Context

The proposed Project is located on the east coast of the Isle of Arran, at the old, no longer operational Brodick Pier (National Grid Reference NR 022 359), as shown on Figure 1 in Appendix A. Figure 2 in Appendix A shows the nearest environmental designations to the site as well as providing further context to specific proposed construction and demolition within the red line boundary of the proposed Project. The nearest environmental constraints are described in Section 4 below.

2.2 Summary of the Proposed Project Elements

The proposed Project is accessible via a small access road that leads from Market Road to the south, past properties and business premises onto the existing pier. The pier is bound to Brodick Bay to the north and west, and the operational Brodick ferry terminal to the east. The topography of the land is relatively flat to the south following the access road, and slopes gradually uphill at the A841 junction.

Image 1 shows an overview of the proposed site. Further details of the elements to be demolished, constructed and retained are shown on Figure 2.

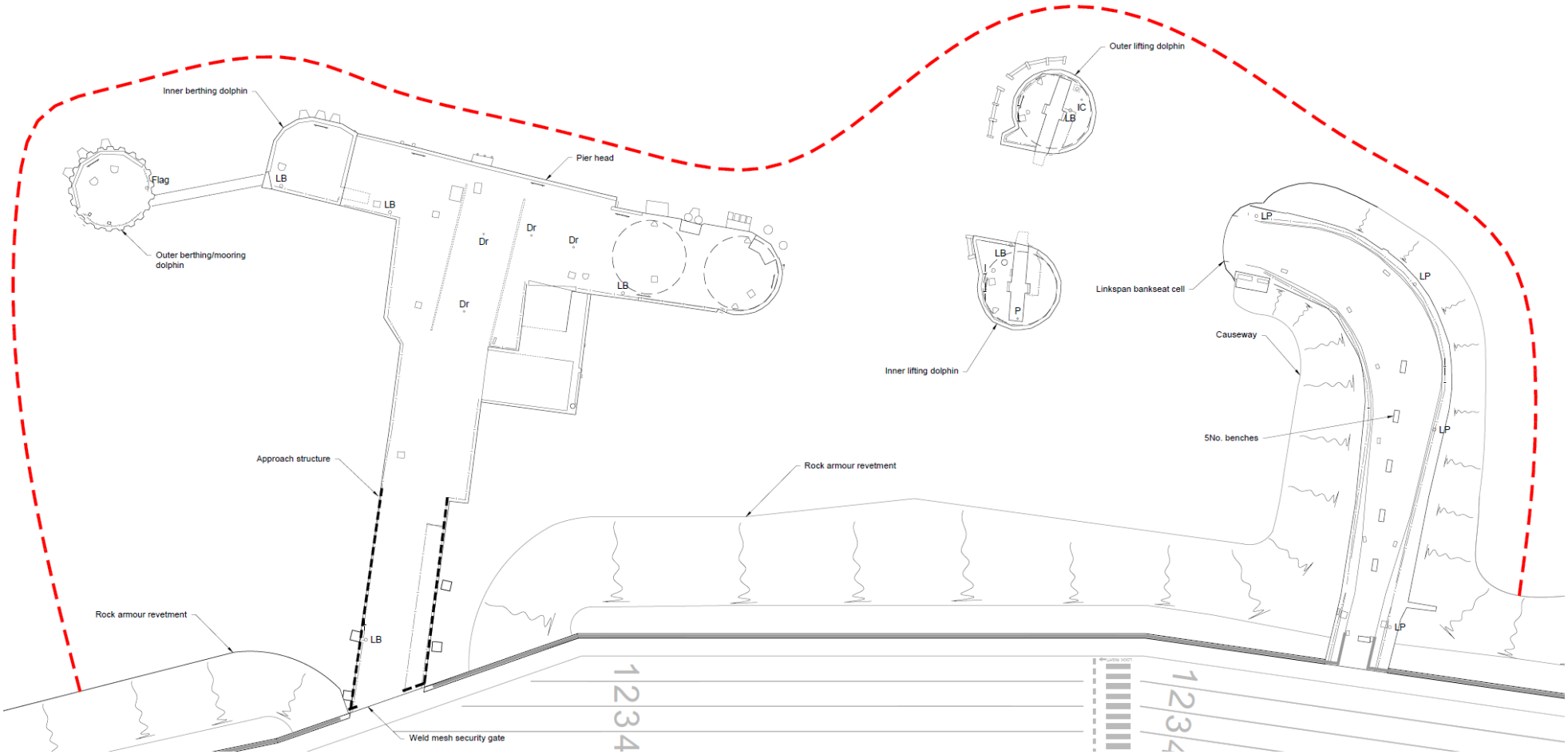

Image 1: Overview of proposed site

In relation to Image 1, the summary of items to be demolished are as follows:

- pier approach structure;
- pier head;
- storage building;
- pier head cell A;
- pier head cell B;
- outer lifting dolphin (cell C);
- inner lifting dolphin (cell D);
- inner mooring dolphin;
- outer berthing/mooring dolphin;
- deck furniture;
- fencing around pier and mesh gates at entrance to pier;
- fendering; and
- scour blankets, gabion baskets, grout/concrete on seabed placed on seabed in effort to repair cells.

The linkspan bankseat cell E and Causeway are to remain.

Additionally, at the root of the removed pier, rock armour revetment will be constructed to plug the gap left. Handrailing will also be supplied at the root of the removed pier.

The total area of structures to be demolished is approximately 1,350m^2, within a site boundary of approximately 18,800m^2.

The works are anticipated to take approximately 6 months, and programmed as follows:

- two weeks mobilisation;
- 18 weeks demolition; and
- four weeks construction.

It is anticipated that the Contractor will transport the material removed from site by barge to the UK mainland for disposal. However, the specification for the works does not preclude the Contractor from disposing of material on the Isle of Arran or being transported to the UK mainland by heavy-goods vehicles using the Brodick-Ardrossan ferry. Barge capacity fill level and number of journeys is dependent on the Contractor's proposal during the tendering stage. On the basis that barges in the order of 200t capacity are used to their full capacity, 20No. barges of material are expected to be removed from site.

During construction of the rock armour revetment, it is anticipated that the primary and secondary armour can be sourced from within the UK. The larger primary armour is anticipated to be from the mainland and there is potential for secondary armour to be sourced from Arran. The material source and method of transportation to site is subject to the Contractor's proposal during the tendering stage. On the basis that barges in the order of 200t capacity are used to transport material to site, 9No. barges of material are expected to be delivered to site.

2.3 The Proposed Project – Construction

2.3.1 Demolition Methodology

The demolition methodology is based on the following assumptions:

- no regular truck access through the new marshalling area for the demolition works will be permitted, with the exception of rock armour delivery;
- all demolition arisings are disposed of on land and no disposal at sea is anticipated;
- all demolition arisings are inert;
- no explosives are to be used during construction;
- there is no anticipated dredging to be undertaken under the structures to be demolished;
- all man-made structures and miscellaneous items on the seabed associated with the Brodick pier to be demolished, will be removed (restoring the seabed to its natural setting);
- all works would be carried out during normal working hours (normal working hours within the Site are anticipated to be between 0700 and 1900 hours, Monday to Saturday);
- all works would be undertaken outwith the breeding bird season, which occurs from April to September;
- load restriction in place on existing pier approach; and
- the east berth (fixed ramp) of the new pier may be used to offload demolition arisings.

Due to the load restrictions on the pier approach structure and access via the marshalling area, it is considered that the demolition works will be completed using marine plant.

The marine plant is likely to consist of a crane barge to remove the fixings, metalwork, fendering, deck sections and piles. A second barge with an excavator will be required to remove fill material from the cells and to remove grout mattresses and any deposits on the seabed that occur as part of the demolition works.

The excavator may also be fitted with a hydraulic breaker to facilitate breaking up of the concrete cell caps, areas of the concrete deck, the inner mooring dolphin head and the concrete within the outer berthing/mooring dolphin.

Additional supply barges will be required to transport the material away from site. They may also be used to land the larger concrete sections on for further break-down. Catchment pontoons and an inflatable boom are likely to be required to catch and contain arisings from the demolition works. Additional work boats supporting divers and specialist cutting contractors are also envisaged.

Land-based vehicular plant is expected to be limited to vehicles to support manual demolition tasks such as removing deck furniture. For the purpose of setting a limit on contract drawings, a 3.5 tonne limit would allow Ford Transit flat-bed type vehicles to access the pier. This type of vehicle would typically be used to transport hand tools and smaller items such as railings to and from the site.

The storage building which is being removed as part of the proposed Project has undergone an asbestos assessment (Asbestos Building Services, 2020) where no asbestos containing materials were found during the survey.

While the exact weight of materials to be removed during demolition are not known at this stage, estimated values (with an additional 10% bulk to account for underestimations) are provided as follows:

- 330 tonnes of steel/iron;
- 2,240 tonnes of concrete;
- 130 tonnes of timber;
- 10 tonnes of plastic/synthetics; and
- 1,230 tonnes of sand.

2.3.2 Construction - Rock Armour Revetment

At present, a new rock armour revetment is in place along the new retaining wall that was constructed as part of the new pier works. There is a break in the rock armour revetment where the pier extends from the retaining wall that will leave a gap in the revetment when the pier is removed. It is anticipated that this gap will be filled with rock armour that is consistent with the adjacent revetment. The retaining wall does not rely on rock armour by design but the rock armour will protect against spray and wave overtopping due to increased exposure as a result of the pier removal.

Options for delivering and placing the rock armour are either by using marine plant, or by having the material delivered by land immediately adjacent to where it is to be placed. It is anticipated that the required rock armour will be delivered by heavy-goods vehicle (HGV) and a long-reach excavator to unload the rock armour into position.

It is assumed that limited dredging will be undertaken at the root of the pier to allow for the rock armour revetment placement, where it is anticipated that approximately 901 tonnes (340m^3) of seabed would be removed to allow for placement of the rock armour revetment. No other dredging is anticipated.

Approximately 1,800 tonnes of boulders will be used to create the rock armour revetment.

2.3.3 Construction - Linkspan Bankseat Cell

Any repairs required to the linkspan bankseat cell will be developed separately following the planned dive inspection.

2.4 The Proposed Project – Operation

The proposed Project is associated with the demolition of the existing pier, installation of rock armour revetment and potential repairs to the linkspan bankseat cell (the extent of which is to be determined through dive inspection). The pier to be demolished has already been replaced by the new Brodick pier and therefore no changes to existing services or other operations are anticipated during operation.

3. EIA Regulations

This request for a Screening Opinion is made to Marine Scotland under Regulation 10(1) of the EIA Regulations. The EIA Regulations form the legislative framework for undertaking EIA for certain projects and define an 'EIA project' as either a '*Schedule 1 works; or Schedule 2 works likely to have significant effects on the environment by virtue of factors such as its nature, size or location*.'

This section outlines the application of the EIA Regulations with regards to the proposed Project. Appendix B provides full assessment details of the proposed Project against Schedules 1, 2 and 3 of the EIA Regulations.

3.1 Schedule 1

The proposed Project does not meet any of the criteria listed within Schedule 1. As a result, it is not automatically classified as an EIA project and must be considered under Schedule 2.

3.2 Schedule 2

Schedule 2 developments are those development likely to have significant effects on the environment by virtue of factors such as its nature, size or location. As defined in Regulation 2(1), Schedule 2 developments are those development types described in Column 1 of the table within Schedule 2, and where:

(a) any part of that development is to be carried out in a sensitive area; or

(b) any applicable threshold or criterion in the corresponding part of Column 2 of that table is respectively exceeded or met in relation to the works.

With regards to (a), the proposed Project is not located within a 'sensitive area' as defined in Regulation 2(1) of the EIA Regulations.

With regards to (b), the proposed Project is considered to fall under:

- *10 (m) Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works*; due to the construction/demolition works at the pier.

Accordingly, the proposed Project is considered to be a Schedule 2 development and therefore must be considered against the Schedule 3 criteria to determine the potential for likely significant effects.

3.3 Schedule 3

Schedule 3 provides criteria to assist with determining whether a Schedule 2 development constitutes an EIA project. These criteria are the characteristics of development; the location of development; and the characteristics of the potential impact. The environmental constraints and considerations that have been taken into account in determining the potential for likely significant effects are outlined in Section 4 and the EIA Screening concluded in Section 5.

4. Environmental Considerations

Under Part 2, Regulation 10 of the EIA Regulations, when requesting a Screening Opinion from the Scottish Ministers, the environmental aspects that could be potentially significantly affected by the proposed Project need to be considered. This section provides an overview of those environmental aspects considered relevant to the proposed Project site and considered when determining whether the proposed Project constitutes an EIA project under the EIA Regulations. As described in Section 2.4, the pier to be demolished has already been replaced and is no longer operational. No other changes to existing services or other operations are anticipated during operation. Therefore, operational impacts are not considered as part of this screening request and the impacts focus only on those associated with the construction activities described in Section 2.3.

The consideration of a potential impact's significance takes cognisance of good practice and management measures as set out in Table 4.1 as these measures will be adopted by the Contractor(s) throughout the proposed Project (GP-XX).

Table 4.1 General Mitigation and Good Practice Measures

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
GP-01	Pre-construction & construction	A Construction Environmental Management Plan (CEMP) will be prepared by the Contractor. The CEMP will set out how the Contractor intends to operate the construction site, including construction-related mitigation measures. The relevant section(s) of the CEMP will be in place prior to the start of construction work. The CEMP will include, but not be limited to, subsidiary plans relating to marine water and sediment quality; ecology; traffic and transport; air quality; noise and vibration; navigation; and waste management. These appended management plans are likely to include: ▪ Pollution Control and Response Plan; ▪ Oil Spill Contingency Plan; ▪ Dust Management Plan; ▪ Construction Traffic Management Plan; ▪ Marine Safety Management System; ▪ Archaeological Finds Protocol; and ▪ Biosecurity Management Plan (BMP).	To provide a framework for the implementation of construction activities in accordance with the environmental commitments and mitigation measures in this Screening Study. It will be developed and evolve to avoid, reduce or mitigate construction impacts on the environment and the surrounding environment.	MS-LOT / North Ayrshire Council
GP-02	Pre-construction	Prior to construction a suitably qualified Environmental and Ecological Clerk of Works (EnvCoW, ECoW) will be appointed by the Contractor. The appointed person(s) will be professionally qualified and experienced in a relevant environmental discipline and will be a member of an appropriate professional body (e.g. CIWEM/CIEEM). The EnvCoW(s) and ECoW(s) will be present on site, as required, during the construction period to monitor the implementation of the mitigation measures identified and ensure that activities are carried out in such a manner to prevent or reduce impacts on the environment.	To monitor the implementation of the mitigation measures identified and ensure that activities are carried out in such a manner to prevent or reduce impacts on the environment.	None required
GP-03	Pre-construction, Construction	Adherence to Pollution Prevention Guidelines (PPGs), and, where available, the new Guidance for Pollution Prevention (GPPs) (SEPA, 2018) (NetRegs, 2018[1]).	To protect the water environment and marine ecology.	None required
GP-04	Construction	Vessels associated with the development will comply with International Maritime Organisation (IMO)/Maritime Coastguard Agency (MCA) codes for prevention of oil pollution. Vessels over 400 gross tonnes will require onboard Ship Oil Pollution Emergency Plans (SOPEPs). All vessels will carry oil and chemical spill mop up kits.	To protect the water environment and marine ecology.	None required

[1] https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
GP-05	Construction	All vessels using ballast water must comply with the Exchange standards contained in the IMO Ballast Water Management Convention and carry a Ballast Water Management Plan and a Certificate of Compliance.	To protect the water environment and marine ecology.	None required
GP-06	Construction	Workers will ensure that all debris, material, and water is removed from the containment with any waste material removed from the site by licensed waste carriers.	To protect the water environment and marine ecology.	None required
GP-07	Pre-construction & Construction	All plant, vehicles and vessels will meet good industry standards and will be powered off when not in use to reduce emissions. During dry conditions water will be used for dust suppression. Storage of materials will be enclosed and/or covered with dust sheets and all HGV's delivering loose material to the site compound will be fitted with suitable sheeting. Good practice measures will include the use of wheel-wash facilities and the implementation of speed restrictions, and all plant will have associated plant nappies operational when not in use. Any fuel bowsers, or other plant will be placed atop oil drip trays	To reduce potential dust from material storage, vehicle movements and public roads.	None required
GP-08	Pre-construction & Construction	The normal working hours within the Site are anticipated to be between 0700 and 1900 hours, Monday to Saturday. Exceptionally, consent for work outside these hours, including nightshift, may be given after necessary consultation by the Contractor with North Ayrshire Council, the Project Manager and the Ferry Operator. For example, it may be necessary to undertake some works outside these times due to tidal constraints. No construction activities will be undertaken on Christmas Day, Good Friday or a day which under the Banking and Financial Dealings Act 1971 is a bank holiday in Scotland.	To reduce short-term noise impacts during construction.	North Ayrshire Council, the Project Manager and the Ferry Operator
GP-09	Construction	Adherence to industry standard risk controls (e.g. International COLREGS 1972 (as amended); Standards of Training, Certification and Watchkeeping for Seafarers (STCW); Notices to Marines (NtM); and vessel Standard Operating Procedures (SOPs)) and implementation of an updated Marine Safety Management System (MSMS).	To safely facilitate the berthing and manoeuvring of vessels.	None required
GP-10	Pre-construction and construction	The Contractor will comply with all relevant waste legislation in relation to waste handling, storage, transport and disposal (e.g. The Waste Framework Directive) and consultation with SEPA for advice on waste practices, licences and exemptions where appropriate.	To ensure waste handling, storage, transport and disposal is compliant with all relevant waste legislation.	SEPA
GP-11	Construction	The Contractor will ensure that all site workers receive adequate environmental training relevant to their role prior to working on the construction site, including specific environmental project inductions and 'toolbox talks' on best practice construction methods as appropriate.	To ensure site workers are aware of best practice construction methods, mitigation measures and how they are implemented.	None required

4.1 Noise and Vibration

4.1.1 Baseline

The site is currently an operational ferry terminal which is anticipated to be the greatest contributor to the baseline sound climate within the study area. The existing pier is bound by water to the east, south and west. To the north are buildings associated with the ferry terminal.

The nearest noise sensitive receptor is the Copperwheat Coffee House / Ferry Fry / Arran Graphics line of buildings which looks directly onto the pier. The closest residential receptors to the site are adjacent to the Douglas Hotel, approximately 120m south-west of the site. The topography slopes upwards away from the terminal. The proposed Project is not located within a Noise Management Area.

4.1.2 Potential Impacts, Mitigation and Residual Effects

During the construction phase there is the potential for noise impacts on nearby noise sensitive receptors, the closest of which is approximately 120m to the north as described in Section 4.1.1.

As set out in Table 4.1, a Construction Environmental Management Plan (CEMP) will be in place for the proposed Project (GP-01) which will outline best practices to ensure noisy works are reduced as far as practicable. It is therefore anticipated that short-term construction impacts on noise sensitive receptors would be reduced to non-significant by adopting the mitigation measures to be included in the CEMP and through Mitigation Item GP-08, as described in Table 4.1.

Therefore, residual effects on noise sensitive receptors during construction are considered to be non-significant.

4.2 Air Quality

4.2.1 Baseline

In order to inform the screening request, the 1km background air quality concentration maps were obtained from the Scottish Air Quality[2] and DEFRA[3] websites. The 2020 measured annual average concentrations of NO_2, PM_{10} and $PM_{2.5}$ are shown in Table 4.2 below. This indicates the air quality having pollutant concentrations well below the relevant National Air Quality Objectives.

Table 4.2 2020 Measures Annual Average Concentrations for Background Square (202500, 635500)

Pollutant Type	Pollutant Concentration (µg/m$^{3)}$	National Air Quality Objective Level (µg/m$^{3)}$
NO_2	3.62	40
PM_{10}	6.60	18
$PM_{2.5}$	4.27	10

The site is not within an Air Quality Management Area (AQMA).

[2] http://www.scottishairquality.scot/data/mapping?view=data
[3] https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2017

4.2.2 Potential Impacts, Mitigation and Residual Effects

There is the potential for a temporary increase in traffic due to vehicle movements associated with the works, particularly when removing material. Additionally, there may also be an increase in traffic (either marine traffic or road traffic) during construction of the rock armour revetment. This, in turn, has the potential to increase the NO_2, $PM_{2.5}$ and PM_{10} pollutants associated with traffic emissions. However, it is not anticipated there will be any significant increase in traffic flows and any increases will be temporary during the demolition and construction works (anticipated at 6 months).

As identified in Table 4.1, the CEMP (GP-01) will outline best practice methodology to mitigate potential impacts on air quality during demolition and construction. All plant, vehicles and vessels will meet good industry standards and will be powered off when not in use to reduce emissions. During dry conditions, water will be used for dust suppression. Storage of materials will be enclosed and / or covered with dust sheets and all HGV's delivering loose material to the site compound will be fitted with suitable sheeting. Good practice measures will include the use of wheel-wash facilities and the implementation of speed restrictions (GP-07).

Acknowledging the good practice and management measures to reduce dust and emissions during demolition and construction, residual effects on air quality are not anticipated do be significant.

4.3 Ecology and Biodiversity

4.3.1 Baseline

Designated Sites

Special Protection Areas (SPAs), Ramsar sites and Special Areas of Conservation (SACs) make up a European network of protected areas called Natura 2000 under the 1992 Habitats Directive and the 1979 Birds Directive. These sites are afforded legal protection under the Habitats Regulations (Conservation (Natural Habitats, &c.) Regulations 1994 as amended). Where a plan or project (including the proposed works) affects a Natura 2000 site, the Habitats Regulations require the competent authority to undertake a Habitats Regulations Appraisal.

Sites of Special Scientific Interest (SSSI) are designated for their biological (flora or fauna) or geological and physiological importance. Table 4.2 identifies designated sites within 10km of the proposed Project.

Table 4.2: Statutory Designated Sites within 10km of the proposed Project

Designation Title	Type of Designation	Distance from proposed Project (at closest point)	Description
South Arran	Marine Protected Area (Nature Conservation)	1.8km south-east	Designated for its burrowed mud (inshore sublittoral sediment) (marine), kelp and seaweed communities on sublittoral sediment, maerl beds and maerl or coarse shell gravel with burrowing sea cucumbers.
Arran Moors	SSSI	2km west	Designated for its upland habitats, breeding bird assemblage and hen harrier (*Circus cyaneus*) breeding.
	SPA	2km west	Designated for hen harrier (*Circus cyaneus*), breeding
Clauchlands Point – Corrygills	SSSI	2.5km south-east	Designated for its maritime cliff and saltmarsh.
Gleann Dubh	SSSI	4km west	Designated for its breeding bird assemblage and upland assemblage.

Designation Title	Type of Designation	Distance from proposed Project (at closest point)	Description
Arran Northern Mountains	SSSI	4km north-west	Designated for its beetle assemblage and breeding bird assemblage.
Ard Bheinn	SSSI	9km west	Designated for its hen harrier (*Circus cyaneus*) breeding and tertiary Igneous geology.

There are several sites of Ancient Woodland Inventory within 2km of the proposed Project;

- an unnamed woodland approximately 700m south;
- an unnamed woodland approximately 1km south-east;
- Stronach Wood, approximately 1.4km north-west;
- Strathwhillan Wood, approximately 1.4km south;
- an unnamed woodland approximately 1.6km south-west;
- an unnamed woodland approximately 1.7km south-west;
- an unnamed woodland approximately 1.8km south-west; and
- Corriegills Wood, approximately 1.8km south-east;

There are no SACs identified within 10km of the proposed Project and the proposed Project is not within a Marine Protected Area, the closest being South Arran, approximately 2km south-east.

Protected Species

A data search on National Biodiversity Network (NBN) Gateway[4] has identified the following protected species within 1km of the proposed Project's extents:

- Otter (*Lutra lutra*);
- Red squirrel (*Sciurus vulgaris*);
- Slow worm (*Anguis fragilis*);
- Basking shark (*Cetorhinus maximus*);
- Red-throated diver (*Gavia stellata*);
- Greenshank (*Tringa nebularia*);
- Mallard (*Anas platyrhynchos*); and
- Adder (*Viperus berus*).

Within a 2km study area, the following additional protected species are noted:

- Common frog (*Rana temporaria*);
- Great Northern diver (*Gavia immer*);
- Merlin (*Falco columbarius*);
- Barn owl (*Tyto alba*);

[4] NBN Atlas occurrence download at NBN Atlas accessed on April 29 2020 10:17am UTC 2020.

- Greylag goose (*Anser anser*);
- Canada goose (*Branta canadensis*);
- Moorhen (*Gallinula chloropus*);
- Teal (*Anus crecca*);
- Woodcock (*Scolopax rusticola*);
- Common crossbill (*Loxia curvirostra*); and
- Kingfisher (*Alcedo atthis*).

Data suggests that low numbers of cetaceans (mainly harbour porpoise (*Phocoena phocoena*) and occasionally bottlenose dolphin (*Tursiops truncatus*), common dolphin (*Delphinus delphis)* and minke whale (*Balaenoptera acutorostrata*)) may be transient in the area, with only harbour porpoise likely to be resident year-round (Marine Scotland, 2021, Hague *et al*., 2020, Mills *et al*., 2017). Both grey seals (*Halichoerus grypus*) and harbour seals (*Phoca vitulina*) are present in the Firth of Clyde, but at relatively low densities compared to other Scottish regions (Marine Scotland, 2021, Hague *et al*., 2020, Mills *et al*., 2017). The closest designated seal haul out site is the Sound of Pladda Skerries, 15km from the works.

Surveys

Echoes Ecology Ltd. were previously commissioned to undertake surveys to inform the development of the new pier at Brodick in 2014/15. Jacobs UK have since conducted ecology surveys for the proposed Project in September 2020. Whilst out of date, the habitats previously recorded in 2014/15 have not changed significantly, and therefore the 2014/15 data along with the recent Jacobs survey data inform the current understanding of the baseline conditions. These surveys are summarised below.

Bird surveys

Echoes Ecology Ltd. were appointed to conduct breeding bird surveys within 300m of the Brodick Pier between April-May 2014 (Echoes Ecology Ltd, 2014). A total of 21 species were recorded and 11 species were considered to be breeding or potentially breeding within the survey area. Of the breeding or potentially breeding species, only black guillemot was considered to be potentially impacted by the proposed Project. No rare or Schedule 1 species were recorded within the survey area.

There were an estimated 10 guillemot pairs at Brodick pier and five possible nesting sites were identified within crevices beneath the pier and in existing nest boxes (Echoes Ecology Ltd, 2014).

Jacobs UK were appointed to undertake a bird survey for black guillemots at the old Brodick Ferry Terminal (the site of the proposed Project), and a site visit was undertaken on 01 September 2020. The survey comprised a visual inspection using binoculars of the old terminal from suitable viewpoints along the coast and old causeway, and on the old pier. No black guillemots were observed, and bird activity of all species was low, however. it is noted that the survey was conducted at the end of the black guillemot breeding bird season (April to August inclusive). The artificial nest boxes identified by Echoes Ecology Ltd in 2014 were not observed by Jacobs in 2020.

[redacted]

[redacted]

[redacted]

[redacted]

4.3.2 Potential Impacts, Mitigation and Residual Effects

Demolition works have the potential to impact benthic species such as shellfish through direct contact with the removal apparatus and smothering of the sea bed species as well as also having the potential to impact cetaceans and fish species through increased sedimentation within the water column resulting from the movement of materials/vessels, making it more difficult for these species to navigate/find food. Depending on seasonality, algal blooms may potentially arise from the increased nutrients in the water column, which may have a detrimental effect on the levels of oxygen in water.

Underwater noise has the potential to impact marine species. Activities with the greatest potential to result in underwater noise are:

- Breaking of concrete cell caps, areas of the concrete deck, the inner mooring dolphin head and the concrete within the outer berthing/mooring dolphin. Previous underwater noise monitoring during above-water concrete breaking operations using hydraulic breakers has recorded peak noise levels of 160 dB re1µPa at a range of 400m (Nedwell *et al*., 2008) and 189-205 dB re 1µPa at 10m (Escuade, 2012).
- Cutting of piles, if required. The use of underwater diamond wire cutters has been shown to result in noise increases of up to 15dB for frequencies above 5kHz, at 100m from source, but generally difficult to discern above background noise, where vessels are in the vicinity (Pangerc *et al.,* 2016).
- Dredging. A study of noise during harbour dredging at Shetland found that backhoe (excavator) dredging produced noise of between 145 – 162 dB re 1µPa at 7m from source, reduced to 132 - 136 dB re 1µPa at 105m (Nedwell *et al*., 2008).

Marine mammals are known to be more sensitive to impulsive noise than non-impulsive (Southall *et al*., 2019). Underwater cutting and dredging activities are non-impulsive noise sources, however the noise produced by a hydraulic concrete breaker has been shown to be impulsive in character (Escuade, 2012).

Harbour porpoise are considered to be one of the more sensitive marine mammal species, generally with lower noise thresholds than other species. Reviews of the hearing abilities of marine mammals have indicated that exposure to noise above 140 dB re 1µPa results in profound and sustained avoidance behaviour (Southall *et al*., 2007) and that non-impulsive noise over 153 dB re 1µPa (sound exposure level (SEL)), and impulsive noise over 140 dB re 1µPa (SEL) and 196 dB re 1µPa (peak sound pressure level (SPL)) has the potential to result in temporary effects on the hearing of harbour porpoise (Southall, *et al*., 2019). Using the noise levels presented above it is considered unlikely that any disturbance effects of underwater noise will occur as a result of the pile removal or dredging, as individuals would have to be extremely close to the works. There is however potential for effects on

marine mammals during concrete breaking. While the works will be outside the sensitive breeding and calving period (between May and August (IAMMWG *et al*., 2015)), the number of marine mammals likely to be affected is low and soft-start procedures will be employed, to further mitigate the potential for disturbance it is proposed that JNCC guidelines, specifically in relation to presence of a Marine Mammal Observer (MMO), be applied during use of the hydraulic breaker unless otherwise confirmed with MS-LOT, and the need for a disturbance licence for marine mammals be discussed with MS-LOT (Mitigation items PS-03 to PS-05 as set out in Table 4.4).

Basking sharks (*Cetorhinus maximus*) have been recorded in the vicinity of Brodick Bay, however, this species is only present during the summer months and is not considered sensitive to underwater noise due to lack of a swim bladder (Popper *et al*., 2014). As the works will not be undertaken March to August inclusive (as mitigation for breeding birds), there is no predicted effect on basking sharks.

Several species of marine fish, e.g. Atlantic cod (*Gadus morhua*) and herring (*Clupea harengus*) are considered susceptible to barotrauma as a result of exposure to noise. Criteria for impulsive sound (Popper *et al*., 2014) suggest that there is potential for temporary threshold shift in these species exposed the noise generated by concrete breaking, however, these fish would have to be in close proximity to the works and, with soft-start procedures in place (Mitigation item PS-03 as set out in Table 4.4), this is considered unlikely. Behavioural responses and masking of biological sounds may result from the concrete breaking works, however, in the vicinity of the active ferry terminal, this is unlikely to represent a significant effect for these species.

The demolition methods are considered to minimise the impacts of underwater noise. All concrete breaking will be conducted above water. For removal of the concrete deck it is proposed that the deck be cut into sections and lifted out of position. The preferred method for concrete breaking of the pier heads and mooring and lifting dolphins is the use of non-explosive demolition grout. It is likely however, that a hydraulic breaker will be required to complete the concrete breaking process for at least some of the elements. It is roughly estimated that there will be around two weeks of concrete breaking activity spread throughout the 18 week demolition period. The preferred method of pile removal is by upward pulling, with vibratory assistance if required. Only if this proves unsuccessful will the use of underwater cutting equipment be considered, to remove piles 2m below bed level. Should this be necessary it is expected that a diamond wire cutter would be used. The amount of dredging required as part of the proposed works is limited.

During demolition/construction the Contractor will observe any sediment and material movement and increase mitigation where required due to changing tidal/wave movements such as the use of silt booms.

With regards to vessel movement, Brodick is an operational terminal. Given the frequency and nature of existing vessel movements in the area it is anticipated that species within the local environment are naturalised to vessel movements and it is not anticipated that the proposed Project, during demolition or construction, will have any significant residual effects on biodiversity.

A CEMP will be required during demolition and construction and will outline best practice (GP-01) and all land-based plant will have plant nappies in place when stationary and any fuel bowsers, or other plant will be placed atop oil drip trays. (GP-07). As part of the CEMP, species specific protection plans will also be implemented, for the species outlined within Section 4.3.1.2. Best practice guidelines will be followed at all times during demolition and construction.

[redacted]

The demolition of the old pier will result in the loss of black guillemots nesting sites identified by Echoes Ecology Ltd (Echoes Ecology Ltd, 2014). However, suitable nesting sites were incorporated during construction of the new Brodick Ferry Terminal, with ten guillemot nest boxes installed under the new pier. As observed by Echoes Ecology Ltd, black guillemots have previously made use of artificial nest boxes on the old pier.

Works within the area of potential impact to breeding black guillemots and other breeding birds should be avoided throughout the core breeding bird season (March to August inclusive), when nesting locations become protected by law.

If demolition is to be undertaken during the breeding season, mitigation will be required to ensure that all potential black guillemot nest sites are excluded prior to mid-April on the structures to be demolished (Mitigation Item PS-02 as set out in Table 4.4). Where possible, plywood should be securely fixed/nailed over cavity entrances to prevent access. Where this is not possible, metal mesh should be used to tightly pack the cavities and secured in place to prevent the birds from attempting to remove the mesh. To prevent injury to or entrapment of birds, the mesh should have a small hole size (approximately 13mm).

Taking into account the mitigation measures identified, residual effects during demolition/construction are not anticipated to be significant.

4.4 Water Environment

4.4.1 Baseline

The proposed Project is located within the East Arran coastal water body[5] (ID: 200023). It is 156.9 square kilometres in area and classified as Moderate overall status (SEPA, 2014). There are no designated marine bathing waters in the vicinity of Brodick Pier.

The demolition area is not currently being used as a ferry terminal as the new pier is operational. A review of Marine Scotland's Mapping Portal[6] shows the sea bed as 'Rock and Hard Substrate' within the proposed Project area.

4.4.2 Potential Impacts, Mitigation and Residual Effects

There may be localised sediment movement while the pier and ancillary structures are removed. However, while sediment movement is anticipated, given the physical characteristics (rocky rather than sandy/silty) of the seabed at the proposed Project, this is envisaged to be of low impact and temporary in nature while demolition/construction activities occur. It is considered that any increases in dissolved pollutants above background levels would be highly localised, temporary and minimal and taking into account the scale of the receiving waters would not be anticipated to affect the integrity of the waterbody.

The amount of dredging required for the works is considered to be minimal. The granular fill material to be removed from the inner and outer lifting dolphin and the two pier head cells will be excavated prior to removal of the sheet piling and therefore this is not considered to be part of the 'dredging campaign' and the potential for release of industrial pollution is low. Therefore, the only dredging proposed is the removal of approximately 901 tonnes of sand and gravel to enable a new section of rock revetment to be created, to fill the gap left by removal of the old pier. It is not expected that disturbance of such a small volume (340m^3) of substrate will result in the release of a significant amount of sediment bound industrial pollution. In addition, there will be no disposal of

[5] https://www.sepa.org.uk/data-visualisation/water-environment-hub/
[6] https://marinescotland.atkinsgeospatial.com/nmpi/

dredged material at sea. The contractor will comply with any testing and licensing requirements for their chosen disposal site on land.

The limited area required to be backfilled by the rock armour at the pier root will be in-keeping with the remainder of the surroundings and is not anticipated to have any significant residual effect on the tidal current and wave processes.

It is not anticipated there will be any changes to flood risk as a result of the proposed Project. The proposed Project aims to remove the disused pier and restore the water environment, at this location, to a naturalised state, allowing free movement of water. There are no anticipated changes to the surrounding water environment (such as blockages or eroding of structures). All replacement structures are currently operational.

Given that the Contractor will adhere to good practice and management measures as well as those mitigation measures outlined in Section 4.3: Ecology and Biodiversity, any residual effect on water or sediment quality is not anticipated to be significant.

4.5 Cultural Heritage

4.5.1 Baseline

The cultural heritage baseline was established using information avaiable online from Pastmap[7] for desigated heritage assets, and non-designated heritage assets recorded on Canmore, Canmore Maritime and the West of Scotland Archaeological Service Histoic Environment Record (HER). Designated heritage assets beyond 200m where there is the potential for the proposed Project to affect the way their surroundings contribute to how they are understood, appreciate and experianced were considered, however none were identified for inclusion in the baseline.

Given the successive periods of marine construction associated with the existing ferry terminal the potential for the presence of previously unidentified marine archaeological remains has been assessed to be low.

Two designated heritage assets have been identified within 200m of the red line boundary of the proposed Project, comprising the Brodick, Douglas Hotel (LB13415) and Brodick, Roman Catholic Church (LB13427), both category C listed buildings. Designated and undesignated heritage assets within 200m of the red line boundary of the proposed Project are identified in Table 4.3.

Table 4.3: Heritage Assets within 200m of the red line boundary of the proposed Project (from Pastmap, accessed 20 November 2020).

Description	HES/HER Reference	National Grid Reference
Brodick, Douglas Hotel (Category C Listed Building)	LB13415	NS 02060 35838
Brodick, Roman Catholic Church (Category C Listed Building)	LB13427	NS 02084 35783
Arran, Brodick Pier (Canmore/HER)	206017/42916	NS 02256 35996
Unknown: Springbank Pier Head, Brodick Bay, Arran, Firth of Clyde (Canmore Maritime)	102497	NS 02247 35972
Arran, Brodick Pier, House, Offices and Waiting Room (Canmore)	205317	NS 02229 35907
Arran, Brodick Pier, Offices and Waiting Room, War Memorial Plaque (Canmore)	340397	NS 02208 35911
Arran, Brodick Harbour/Strathwhellan Quay: Harbour, (HER)	42934	NS 02142 35887

[7] https://pastmap.org.uk/map

Description	HES/HER Reference	National Grid Reference
Brodick, Springbank, Arran: Earthwork, (HER)	4725	NS 02056 35900

4.5.2 Potential Impacts, Mitigation and Residual Effects

There is the potential for impacts to Arran, Brodick Pier (HES reference 206017/HER reference 42916) resulting from the proposed Project resulting from the removal of any surviving elements of the earlier pier structure which may include material associated with the pier shown on historic Ordnance Survey mapping.

While Brodick, Douglas Hotel (LB13415; a category C listed building) and Brodick, Roman Catholic Church (LB13427; a category C listed building) are within 200m of the proposed Project, views between Brodick, Douglas Hotel and Brodick Roman Catholic Church are limited by existing infrastructure and mature trees. The proposed Project would not change the way the surroundings of the hotel or the church contribute to how they are understood, appreciated and experienced as a hotel or a mid-19th century place of worship respectively, and therefore no impacts on their setting are predicted.

Historic buildings recording would be undertaken of Arran, Brodick Pier (HER ref. 42916) in accordance with the Chartered Institute for Archaeologists Standard and Guidance for the archaeological investigation and recording of standing buildings or structures[8] (CIfA, 2014), the West of Scotland Archaeological Service Procedural Guidance for Archaeology and Development[9], and a Written Scheme of Investigation would be agreed with West of Scotland Archaeological Service (Mitigation Item PS-07 as set out in Table 4.4).

Following the mitigation measures identified above for Arran, Brodick Pier (HER ref. 42916) no significant residual effects are anticipated.

4.6 Landscape and Visual

4.6.1 Baseline

The terminal at Brodick, along with ancillary infrastructure, forms the focal point of the area. The area surrounding the port is mostly water (Brodick Bay), with land bound to the south of the site. The topography of the land is relatively flat to the south following the access road, and slopes gradually uphill at the A841 junction. Market Road extends to a car parking area (and industrial buildings) where the cars currently egress the ferry. At the ferry terminal there is also a parking area for buses. The tourist information centre also lies at the A841 / Market Road junction.

The visual receptors are as follows:

- The closest residential building is the Douglas Hotel, approximately 160m south-west of the site. Properties along the A841 (to the west of the site) have a limited view of the existing pier.
- The closest business to the ferry terminal (which is not associated with the terminal) is Copperwheat Coffee House / Ferry Fry / Arran Graphics line of buildings which looks directly onto the pier.
- Transient receptors will be able to see any works that are underway.

There is one landscape designation within 10km of the site: North Arran National Scenic Area, approximately 1.6km north-west at its closest point.

[8] https://www.archaeologists.net/sites/default/files/CIfAS%26GBuildings_3.pdf
[9] http://www.wosas.net/web_pdfs/Procedural%20Guidance%202.pdf

The National Coastal Character Assessment[10] Guidance Note[11] of Argyll and Bute shows the proposed Project is within an area described as Outer Firth with Islands. This is described in the Scottish Natural Heritage Commissioned Report No. 103[12] (ROAME No. F03AA06) as:

'This type comprises a broad sea basin, distinct from the Outer Firth types on the East Mainland coast by virtue of the containment provided by hills, mountains and the large islands of Arran and Bute. The coastline is generally low and rocky with occasional sandy and stony beaches – often a narrow coastal ledge with prominent scarp and coastal hills limiting views inland. This type is well-settled along coastal fringes, particularly on the mainland coast where many tourist facilities and resorts are present but also concentrated on the eastern island coasts. There are a number of key ferry routes and sailing is popular in the sheltered waters of the Firth. Industry and power stations on the North Ayrshire Coast form large-scale features. Policy landscapes and woodlands are frequent features along the coast, and forestry is present on steeper hillsides, principally within Cowal, Kintyre and parts of Arran. Farmland occurs on lower ground where valleys abut the coast. The serrated ridge of Goat Fell on Arran dominates views within this Firth, but views of other islands are also a feature and these can often merge with the mainland in some views. These characteristics create a highly scenic, indented coastline of kyles and sounds backed by mountains, particularly evident to the north and east.'

4.6.2 Potential Impacts, Mitigation and Residual Effects

The only anticipated visual change will be the removal of the existing pier, however, this is considered to be negligible in terms of visual impact. The currently operational pier will remain.

There may be temporary views of plant during construction/demolition, but this is temporary and will be removed once the works are complete. No specific mitigation in addition to the measures outlined in Table 4.1 is proposed for the demolition works.

No significant residual landscape or visual effects are anticipated as a result of the proposed Project.

4.7 Material Assets

Material Assets are defined as buildings, infrastructure and utilities. The proposed Project will include the demolition of the buildings as described in Section 2 of this report.

It is assumed the Contractor will follow the 'Waste Hierarchy'[13] which outlines reusing materials wherever possible. This will be outlined within the CEMP (Mitigation Item GP-01). Material usage on site should be minimised wherever practicable and material going to landfill should only be considered as a last resort.

As such, there are no anticipated significant residual effects of the proposed Project.

4.8 Major Accidents and Hazards

The proposed Project site is not located within a geographical region that is subject to natural disasters. It is therefore considered that there will be no significant adverse effects resulting from the proposed Project on the environment which could result from the vulnerability of the proposed Project to risks from major accidents and disasters.

[10] https://www.nature.scot/sites/default/files/2018-05/National%20coastal%20character%20map.pdf
[11] https://www.nature.scot/sites/default/files/2018-02/Guidance%20Note%20-%20Coastal%20Character%20Assessment.pdf
[12] https://www.nature.scot/sites/default/files/2017-07/A736223%20-%20Description%20of%20Coastal%20character%20types%20-%20%28including%20Caithness%29%20-%20July%202012.pdf
[13] https://www.gov.scot/publications/guidance-applying-waste-hierarchy/pages/3/

It is assumed that any existing Health, Safety and Environment (HSE) plans in relation to the Brodick Ferry Terminal will be valid and cover the full extents of the proposed Project. These should be updated to reflect anticipated works to the pier.

4.9 Cumulative Effects

Cumulative effects are those which result from the incremental changes caused by other present or reasonably foreseeable actions together within a project. Cumulative effects can be divided into two categories:

- **Type 1**: the combined effect of a number of different environmental topic-specific impacts arising as a result of the proposed Project on a single sensitive receptor/resource; and,
- **Type 2:** the combined effects of the proposed Project with other 'reasonably foreseeable' development on a single sensitive receptor/resource.

4.9.1 Type 1 Cumulative Effects

During the demolition/construction works, business properties in close proximity may be subject to temporary disturbance through changes to air quality (dust) and noise, as well as having potentially altered views of the terminal (construction plant being and marine vessels being present in the water). However, applying best practices outlined within the CEMP, and the temporary nature of the works, no significant cumulative effects are anticipated.

No cumulative effects are anticipated during operation of the proposed Project.

4.9.2 Type 2 Cumulative Effects

A review of North Ayrshire's Planning Portal[14] identified the following planning application located adjacent to the site: erection of three modular buildings for seasonal staff accommodation for a temporary period of five years (planning reference 20/00512/PP). This was approved 01 September 2020. Given the small scale of the works required for this development, it is unlikely that there will be any cumulative effects with the proposed Project.

Additionally, a review of current Marine Licence Applications[15] on Marine Scotland's website show there are no licences granted or pending consent within the scheme extents.

Therefore, it is not anticipated there will be any significant Type 2 cumulative effects with the proposed Project.

4.10 Summary of Specific Mitigation

In addition to the general mitigation measures identified in Table 4.1, specific mitigation measures have been identified in Section 4 and are summarised in Table 4.4.

Table 4.4 Specific Mitigation Measures

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
PS-01	Pre-construction Construction	[redacted]	[redacted]	NatureScot

[14]https://www.eplanning.north-ayrshire.gov.uk/OnlinePlanning/search.do?action=simple
[15] http://marine.gov.scot/marine-licence-applications

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
		[redacted]	[redacted]	
PS-02	Construction	If demolition is to be undertaken during the breeding season, mitigation will be required to ensure that all potential black guillemot nest sites are excluded prior to mid-April on the structures to be demolished. Where possible, plywood should be securely fixed/nailed over cavity entrances to prevent access. Where this is not possible, metal mesh should be used to tightly pack the cavities and secured in place. The mesh should have a small hole size (approximately 13mm).	To prevent injury to or entrapment of birds during bird nesting season.	NatureScot
PS-03	Construction	Soft-start procedures will be employed during construction to allow any species closest to the works time to vacate the area.	To help mitigate against noise disturbance on marine species.	MS-LOT
PS-04	Construction	A Marine Mammal Observer (MMO) will be on site during the use of the hydraulic breaker unless otherwise agreed with MS-LOT.	To adhere to JNCC guidelines and to monitor disturbance on marine mammals.	MS-LOT
PS-05	Pre-Construction and construction	The requirement for a disturbance licence to undertake the works will be discussed with MS-LOT.	To adhere to any licensable activity guidelines and regulations.	MS-LOT
PS-06	Construction	The Contractor will observe any sediment and material movement and increase mitigation where required due to changing tidal/wave movements such as the use of silt booms. This will be outlined within the CEMP as set out in Table 4.1 Mitigation item GP-01.	To ensure sediment movement through the water column is mitigated wherever possible.	MS-LOT
PS-07	Pre-Construction and construction	Historic buildings recording would be undertaken of Arran, Brodick Pier (HER ref. 42916) in accordance with the Chartered Institute for Archaeologists Standard and Guidance for the archaeological investigation and recording of standing buildings or structures[16] (CIfA, 2014), the West of Scotland Archaeological Service Procedural Guidance for Archaeology and Development[17], and a Written Scheme of Investigation would be agreed with West of Scotland Archaeological Service	To make a permanent record of Arran, Brodick Pier (HER ref. 42916).	West of Scotland Archaeological Service

[16] https://www.archaeologists.net/sites/default/files/CIfAS%26GBuildings_3.pdf
[17] http://www.wosas.net/web_pdfs/Procedural%20Guidance%202.pdf

5. Screening Conclusions

In accordance with the EIA Regulations, a screening recommendation as to whether an EIA will be required is made through this Screening Request.

Whilst it is acknowledged that the proposed Project falls under Schedule 2 10(m) of the EIA Regulations, as set out in Section 3 and Appendix B, it is considered any environmental impacts would be minimal (as they are temporary in nature during the demolition/construction phase) and adequately mitigated following best practice guidelines and targeted measures as set out in Tables 4.1 and 4.4, such that there are no residual significant effects.

- As described in Regulation 2(1), the proposed Project is not within a sensitive area. The closest sensitive areas are the Arran South MPA(NC) approximately 1.8km south-east of the site, and the Arran Moors SSSI/SPA approximately 2km west of the site. Given the localised nature of the works, no direct or indirect effects on the SSSI/SPA are anticipated. With appropriate mitigation in place to capture any loose sediment in the water column, as well as the distance between the proposed Project and the MPA (providing a degree of dilution factor), the designated features of the MPA are not expected to be impacted.
- The proposed Project encompasses required works for the demolition of a disused pier, and small construction of a rock armour revetment. Materials will be reused on site wherever possible (rock armouring).
- During the works, a CEMP will be used which will outline best practice measures to avoid significant air quality, noise, water environment, human health and ecological effects. This will be in place for the duration of construction/demolition works.

It is therefore considered that the proposed Project is not an 'EIA project' as defined by the EIA Regulations and as set out in Section 3 of this report.

Confirmation of this screening opinion is therefore sought.

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Appendix A. Figures

Appendix B. Assessment Against the EIA Regulations

Table B.1: Full Assessment against EIA Regulations

Schedule	Class	Applicable to proposed Project	Justification
Schedule 1	-	-	Schedule 1 is not relevant to the proposed Project.
Schedule 2	10. (m) Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works. The applicable threshold is all works.	Yes	The works would be classed as a Schedule 2 development as the dredging, jetty demolition and rock armour installation may have the potential to alter the coast around the terminal. However, the extent to which this would adversely affect the coast is considered negligible.
Schedule 3 Characteristics of works. 1. The characteristics of works must be considered having regard, in particular, to:	(a) the size and design of the works;	No	The works are localised around removing the existing pier and ancillary structures, then backfilling the gap at the root of the pier with rock armour.
	(b) cumulation with other existing development and/or approved development;	No	There are no reasonably foreseeable permitted developments within the extents of the proposed Project which have the potential to produce cumulative effects.
	(c) the use of natural resources, in particular land, soil, water and biodiversity;	No	Rock armour is to be used to infill the gap left after the removal of the pier. This will be in-keeping in structure/design to the surrounding rock armour revetment. It is anticipated this will be imported via barge or HGV.
	(d) the production of waste;	No	During demolition, waste is anticipated and will be managed in accordance with a Construction Management Plan and best practice measures. No significant residual effects are anticipated during operation.
	(e) pollution and nuisances	No	During construction, potential noise and air quality impacts will be mitigated through a Construction Management Plan. No pollution or nuisance is anticipated during operation.
	(f) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge	No	The proposed Project site is not located within a geographical region that is subject to natural disasters.

Schedule	Class	Applicable to proposed Project	Justification
	(g) the risks to human health (for example due to water contamination or air pollution)	No	The risks to human health during construction (for example in respect to water contamination or air pollution) will be mitigated through a Construction Management Plan.
Schedule 3 Location of works: 2. The environmental sensitivity of geographical areas likely to be affected by works must be considered having regard in particular to:	(a) the existing and approved land use:	No	The proposed Project is removing the disused pier as it is no longer required. As such, the works are modifying the site to its surrounding setting (rock armour revetment).
	(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;	No	It is not considered that natural resources would be affected by the scale of the proposed Project.
	(c) the absorption capacity of the natural environment, paying particular attention to the following areas – I. wetlands, riparian areas, river mouths; II. coastal zones and the marine environment; III. mountain and forest areas; IV. nature reserves and parks; V. European sites and other areas classified or protected under national legislation; VI. areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure; VII. densely populated areas; VIII. landscapes and sites of historical, cultural or archaeological significance.	No	In regard to the sub- criteria: I. Not applicable to the proposed Project. II. The proposed Project is located within a marine area, which is developed currently (as a ferry terminal). No significant residual effects are anticipated. III. Not applicable to the proposed Project. IV. Not applicable to the proposed Project. V. The proposed Project is not located within a European site or other areas classified or protected under national legislation. The closest sensitive areas are the Arran South MPA(NC) approximately 1.8km south-east of the site, and the Arran Moors SSSI/SPA approximately 2km west of the site.. No significant residual effects on these designated sites are anticipated during construction or operation. VI. Not applicable to the proposed Project. VII. The proposed Project is not located in close proximity to densely populated areas. VIII. The proposed Project is not located in landscapes or sites of historical, cultural or archaeological significance.
Schedule 3 Characteristics of the potential impact 3. The likely significant effects of the works on the environment must	a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); b) the nature of the impact; c) the transboundary nature of the impact; d) the intensity and complexity of the impact;	No	On the basis of the characteristics and location of the proposed Project, and with regards to the criteria for characterising the likely significant effects of the proposed Project on the environment as set out in Schedule 3 paragraph 3 of the EIA Regulations, no likely significant effects are anticipated to arise during construction or operation. As described in Section 4.3, potential impacts on otter and black guillemot have been identified however following mitigation identified in Tables 4.1 and 4.4, residual effects are not anticipated to be significant. While noise impacts on marine species are predicted, these are not anticipated to be significant. Harbour porpoise may be more

Schedule	Class	Applicable to proposed Project	Justification
be considered in relation to criteria set out in paragraphs 1 and 2 above, with regard to the impact of the works on the factors specified in regulation 4(3), taking into account -	e) the probability of the impact; f) the expected onset, duration, frequency and reversibility of the impact; g) the cumulation of the impact with the impact of other existing and/or approved development; h) the possibility of effectively reducing the impact.		sensitive during concrete breaking works and as such, discussions around the requirement for a disturbance licence with MS-LOT are intended. Similarly following implementation of mitigation as set out in Table 4.4, residual effects on Heritage asset Arran, Brodick Pier (HES reference 206017/HER reference 42916 are not anticipated to be significant.