



Barra Runway River Protection Works

Environmental Screening Request

B2335027 V2.0

02/02/21

Highlands and Islands Airports Limited



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1. Introduction

1.1 Project Background

Highlands and Islands Airports Limited (HIAL) (hereafter referred to as 'the Applicant') have appointed Jacobs UK Limited (hereafter referred to as Jacobs) to undertake a formal Screening Opinion under Regulation 10(1) of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 of the installation of a rock armour geotextile solution at the Barra Airport runway river within the Tràigh Mhòr bay on Barra in the Outer Hebrides of Scotland (hereafter referred to as 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 Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017. As explained in Section 3: EIA Regulations of this report, a screening opinion is also sought from Comhairle nan Eilean Siar as the local planning authority under Regulation 8(1) of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 as the proposed Project is located below Mean High Water Springs and above Mean Low Water Spring, i.e. within the intertidal range.

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 Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017. 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 to reinforce the riverbank of a river located adjacent to one of the runways at Barra Airport, within the bay of Tràigh Mhòr at the northern tip of the island of Barra in the Outer Hebrides (National Grid Reference NF 695 054 to NF 701 050), as shown on Figure 1 in Appendix A. Figure 1 in Appendix A also shows the nearest environmental designations to the site as well as providing further context to specific proposed construction within the red line boundary of the proposed Project. The proposed Project is located below Mean High Water Springs (MHWS) and above Mean Low Water Springs (MLWS). The nearest environmental constraints are described in Section 4 below.

The river that emerges from a culvert located underneath the road adjacent to Barra Airport and is turned 90 degrees, by a bank consisting of stone and sediment, to run parallel to the road and out to sea. This bank has predominantly been maintained using dredging, sandbags, cement bags, and some loose rock but is subject to damage and wash out from tidal action. The river would naturally flow across the shore over one of the airport runways and so breaches to the riverbank result in water flowing over the runway and taking it out of service.. While there has been some success in building up a riverbank, the current solution results in repeated maintenance, with dredging being required approximately 6 to 8 times per year.

The proposed Project is accessible via a local road which is located to the immediate west of the bay and passes several properties and premises, and joins the A888 Barra Ring Road approximately 1.8km to the south of the site at Northbay. The site is bound to Tràigh Mhòr bay to the north and east. The topography of the land is relatively flat, but slopes slightly downwards from the road to the bay.

2.2 Summary of the Proposed Project Elements

The proposed Project aims to provide improved sediment build up along the riverbank and provide increased resistance to washout from waves via the installation of a rock armour geotextile solution. It is anticipated that the proposed solution will allow the bank to quickly reform following any washout events, and the geotextile within the rock armour will help restrict water flow through the rock armour prior to the reforming of the sediment bank

The total area of the rock armour geotextile solution to be constructed is approximately 990 m² (3.3m wide and 300m long) as shown in drawing B2335027-BRR-JAC-DR-C-0011 in Appendix A) .

The solution will be installed by first excavating the foundation profile of the solution. Following this the geotextile and initial run of rock armour will be placed to create the interwoven effect shown on the cross sections (please refer to drawing B2335027-BRR-JAC-DR-C-0012 in Appendix A). Rock will then be placed on top until the profile matches that shown on the drawing. Sediment that was removed during excavation will then be used to restore the beach profile on the seaward side of the rock armour. Remaining sediment will be placed on the riverside of the rock armour to encourage the formation of a sand bank. No temporary work deposits are anticipated for these works.

As such the following activities take place below MHWS:

- excavation of beach material;
- placement of geotextile;
- placement of rock armour; and

- placement of excavated material.

The works are anticipated to take approximately 10 weeks, and programmed as follows commencing in April 2022:

- 2 weeks mobilisation; and
- 8 weeks construction.

It is anticipated that the Contractor will reuse excavated sediment by placing it on the riverbank side of the rock armour solution. Cement bags currently on-site will be removed from site and disposed of at landfill; however, there is also potential for the cement bags to be buried below the rock armour solution.

During construction of the rock armour bund, it is anticipated that the rock armour can be sourced locally from a location approximately two miles from the site. The material source and method of transportation to site is subject to the Contractor's proposal during the tendering stage.

2.3 The Proposed Project – Construction

It is anticipated that the required rock armour will be delivered by heavy-goods vehicle (HGV) from a local site situated approximately two miles from the Project site. The rock armour will be placed on the adjacent shore and unloaded into position using an excavator.

Approximately 1,824 tonnes of boulders will be used to create the rock armour bund.

2.4 The Proposed Project – Operation

The proposed Project is associated with the reinforcement of the existing riverbank of the river that emerges from a culvert located beneath the road adjacent to Barra Airport and naturally flows across the shore over one of the airport runways. The rock armour solution is anticipated to encourage better sediment build-up along the riverbank and improve resistance to washout from waves.

3. EIA Regulations

Due to the nature of the works two sets of EIA Regulations or Regimes are applicable to the works in 'a multi-regime' consent scenario:

1. The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and
2. The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter referred to as the TCP EIA Regulations).

As the works fall below MHWS, this request for a Screening Opinion is made to Marine Scotland under Regulation 10(1) of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017. A separate screening request is also being sought from Comhairle nan Eilean Siar, as the local planning authority due to the application of the TCP EIA Regulations.

This report focuses on screening the project under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017, hereafter referred to as '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 located within a 'sensitive area' as defined in Regulation 2(1) of the EIA Regulations as it is located within Eoligarry Site of Special Scientific Interest (SSSI).

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 construction of the rock armour bank to maintain the diversion of the watercourse.*

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 watercourse has previously been diverted and has been maintained along its existing course since before HIAL took over the running of Barra Airport in 1994. No other changes 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-01).

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	<p>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.</p> <p>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:</p> <ul style="list-style-type: none"> ▪ 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 / Comhairle nan Eilean Siar
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	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-04	Pre-construction & Construction	All plant and vehicles 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

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/Objective	Specific Consultation or Approval Required
GP-05	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 Comhairle nan Eilean Siar, the Project Manager and the Airport Operator (HIAL). 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.	Comhairle nan Eilean Siar, the Project Manager and HIAL
GP-06	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-07	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 adjacent to an operational short-runway airport which is anticipated to be the greatest contributor to the baseline sound climate within the study area. The site is bound by water to the north and east. Buildings associated with the airport and Barra Fire Station are located approximately 420m to the north of the site.

The nearest noise sensitive receptor is a residential property located approximately 145m to the south-east of the site on a small area of land situated between the road and the bay. In addition, Suidheachan House is located approximately 255m to the north-west of the site, to the west of the road. Both properties look directly onto Tràigh Mhòr bay. A strip of land located within the red line boundary of the proposed Project between the bay and the road is also used as a caravan / camping area.

The topography of the site slopes slightly downwards from the road to the bay. 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 145m to the south-east, 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-05, 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 Quality¹ and DEFRA² websites. The 2020 measured annual average concentrations of NO₂, PM₁₀ 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 1km area around centre point of the site

Pollutant Type	Pollutant Concentration (µg/m ³)	National Air Quality Objective Level (µg/m ³)
NO ₂	1.27	40
PM ₁₀	4.24	18
PM _{2.5}	2.08	10

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

¹ <http://www.scottishairquality.scot/data/mapping?view=data>

² <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 road traffic during construction of the rock armour revetment. This, in turn, has the potential to increase the NO₂, PM_{2.5} and PM₁₀ 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 construction works (anticipated at 10 weeks, including mobilisation).

As identified in Table 4.1, the CEMP (GP-01) will outline best practice methodology to mitigate potential impacts on air quality during construction. All plant and vehicles 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.

Acknowledging the good practice and management measures to reduce dust and emissions during construction, residual effects on air quality are not anticipated to 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 Project) affects a Natura 2000 site, the Habitats Regulations require the competent authority to undertake a Habitats Regulations Appraisal (HRA).

Sites of Special Scientific Interest (SSSI) are designated for their biological (flora or fauna) or geological and physiological importance. Table 4.3 identifies designated sites within 10km of the proposed Project.

Table 4.3: Statutory Designated Sites within 10km of the proposed Project

Designation Title	Type of Designation	Distance from proposed Project (at closest point)	Description
West Coast of the Outer Hebrides	SPA	750m	Designated for breeding (red-throated diver (<i>Gavia stellata</i>)) and non-breeding (black-throated diver (<i>Gavia arctica</i>), great northern diver (<i>Gavia immer</i>), eider (<i>Somateria mollissima</i>), long-tailed duck (<i>Clangula hyemalis</i>), red-breasted merganser (<i>Mergus serrator</i>), Slavonian grebe (<i>Podiceps auritus</i>)) sea birds.
Sound of Barra	SAC	450m	Designated for harbour seal (<i>Phoca vitulina</i>), reefs and subtidal sandbanks.

Designation Title	Type of Designation	Distance from proposed Project (at closest point)	Description
Eoligarry	SPA	1.9km	Designated for breeding corncrake (<i>Crex crex</i>)
Eoligarry	SSSI	0km	Designated for coastal geomorphology, sand dunes and machair habitats. Also Geological Conservation Review (GCR) Site.

There are no Ramsar sites identified within 10km of the proposed Project and the proposed Project is not within a Marine Protected Area, the closest being Sea of the Hebrides, approximately 8km to the east.

Protected Species

A search for protected species records within a 5km of the proposed Project was made using NBN Atlas³. Only records provided under Open Government Licence (OGL) and Creative Commons (CC-BY) licences were included in the data search. Due to the limited data available, records from all dates are included, but only those from the past 25 years (2001) are considered material to the assessment. The following table (Table 4.4) provides the results of this data search.

Table 4.4: Protected species within 5km of the proposed Project

Species	Number of Records	Dates/ Date Range	Data Provider	Licence
[REDACTED]	1	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	1	[REDACTED]	[REDACTED]	[REDACTED]
Grey seal (<i>Halichoerus grypus</i>)	1	1970	BRC	CC-BY
Harbour seal (<i>Phoca vitulina</i>)	1	1970	BRC	CC-BY
Brambling (<i>Fringilla montifringilla</i>)	30	2009-2019	British Trust for Ornithology (BTO)	OGL
Corncrake (<i>Crex crex</i>)	3290	1988-2019	Royal Society for the Protection of Birds (RSPB)	CC-BY
Fieldfare (<i>Turdus pilaris</i>)	4	2013, 2015, 2019	BTO	OGL
Golden eagle (<i>Aquila chrysaetos</i>)	1	1999	BTO	OGL
Hen harrier (<i>Circus cyaneus</i>)	1	2017	BTO	OGL

³ NBN Atlas occurrence download at [NBN Atlas](#) accessed on Thu Oct 21 12:13:17 UTC 2021.

Species	Number of Records	Dates/ Date Range	Data Provider	Licence
Little tern (<i>Sternula albifrons</i>)	1	2018	BTO	OGL
White-tailed eagle (<i>Haliaeetus albicilla</i>)	11	1990, 2006	RSPB	CC-BY
	1	2013	BTO	OGL
Whooper swan (<i>Cygnus cygnus</i>)	1	2002	BTO	OGL

The closest designated seal haul out site is Aird Ghrein & Sgeir Liath located on the west coast of Barra (Marine Scotland, 2021) which is over 16km from the works (measured along the coastline). Furthermore, cetaceans including minke whale (*Balaenoptera acutorostrata*), white-beaked dolphin (*Lagenorhynchus albirostris*) and common dolphin (*Delphinus delphis*) and orca (*Orcinus orca*) have been seen in coastal waters off the west coast of Scotland, in the waters around the Hebrides and in the Northern Isles (NatureScot, 2020).

Habitats

The area around the proposed Project is characterised by coastal habitat, including sandy shore, coastal grassland, boulders above high tides and intertidal habitat of the bay of Tràigh Mhòr. At the northern end of the proposed Project, an unnamed watercourse is culverted under the road, beyond which it outflows into the bay. The watercourse is directed by a man-made bank, consisting mainly of sand but reinforced with stone in some locations, which runs parallel to the shore before dissipating into the bay.

Ecology Surveys

An ecological walkover survey was conducted at Barra Airport in May 2021 by Jacobs UK. The survey was to inform a suite of works at the airport, specifically the installation of two concrete aprons adjacent to the appliance bay, one to the south at shoreside and one to the north. The area surveyed is approximately 450m north of the location of the proposed Project; however, habitats are contiguous along the coast and the baseline ecological data collected is considered relevant in supporting the assessment for the proposed Project. The surveys identified potential for presence of ground nesting breeding birds within grassland adjacent to the airport. No other signs of protected species were recorded during these surveys. Furthermore, no invasive non-native species were recorded.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.3.2 Potential Impacts, Mitigation and Residual Effects

Excavation of existing sand from the existing watercourse channel and beach to facilitate installation of rock armour will result in small-scale linear loss of habitat within the Eoligarry SSSI. Due to the highly dynamic nature of sediment in this area, this loss is unlikely to have any significant residual effects. Consultation with NatureScot is underway to determine SSSI consent requirements with regards to the proposed Project. Should consent be required this would be applied for by the Contractor and any associated mitigation required adhered to.

Desk study data indicates that the coastal waters around the Hebrides support marine mammals, and whilst records within 5km of the proposed Project are limited it is however considered likely that marine mammals will use the bay and habitats beyond. The proposed Project will involve the mechanical excavation of sediment/sand from the existing beach and river and installation on rock armour onto a geotextile. Marine mammals are known to be more sensitive to impulsive noise than non-impulsive (Southall *et al.*, 2019). No piling/impulsive activities are proposed, therefore the potential for the proposed Project to impact marine mammals is negligible.

The proposed Project is scheduled to commence in April 2022 which is during the breeding bird season (March – August inclusive). Habitats suitable for breeding birds are limited along the coastline, however there is the potential for some ground nesting species to utilise the grassy and rocky habitats along the shore. No vegetation clearance along the shore is anticipated to be required for the proposed Project. Pre-construction ecological surveys will be conducted prior to works commencing and any breeding birds will be identified during these surveys. Any nest identified should be left in situ and undisturbed until the young birds have fledged. Any nests found to be marked out by the contractor with a buffer zone appropriate to the species.

Should the project programme be brought forward to span winter months too, there is the potential for disturbance to wintering birds that utilise the bay, including waders and waterfowl (including qualifying interests of the West Coast of the Outer Hebrides SPA). Due to the small scale nature of the works, and available habitat within the wider area for wintering birds to utilise away from disturbance, significant disturbance on wintering birds is unlikely. However, further assessment of the proposed Project on the West Coast of the Outer Hebrides SPA will be documented within the HRA Screening Assessment as discussed further in section 4.3.3.

[REDACTED]

A CEMP will be required during construction and will outline best practice (GP-01). 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-04).

[REDACTED]. Best practice guidelines will be followed at all times during construction. During construction the Contractor will observe any sediment and material movement (outwith that specified in the construction methodology) and amend mitigation where required due to changing tidal/wave movements.

Pre-construction ecological surveys are required prior to the works. The requirement for any protected species licences will be identified following these surveys, specifically with regards to otter, and any specific working methods and conditions as specified within any licence will be adhered to by the Contractor.

With regards to aircraft movement, Barra Airport is an operational facility which experiences regular scheduled flights, as well as chartered flights, during the year. Given the frequency and nature of existing aircraft activity in the area it is anticipated that species within the local environment are naturalised to aircraft movements and associated on-ground disturbances at Barra Airport and it is not anticipated that the proposed Project, will have any significant residual effects on biodiversity.

In summary, taking into account the nature of the proposed Project, location, and associated mitigation measures identified, residual effects during construction and operation are not anticipated to be significant.

4.3.3 Habitats Regulations Appraisal

An HRA will be undertaken which will contain a detailed assessment to establish whether the proposed Project is likely to have a significant effect on any European or Ramsar sites. If, following screening, likely significant effects (LSEs) are identified for any site on the basis of reasonable links between the proposed Project's effects and the site's qualifying interests, an Appropriate Assessment must be carried out and avoidance/mitigation measures to avoid an adverse effect on site integrity will be proposed.

The following designated sites will be considered as part of the HRA process:

- West Coast of the Outer Hebrides SPA (NatureScot Site Code 10484; EU Site Code UK9020319)
- Eoligarry SPA (NatureScot Site Code 8495; EU Site Code UK9001761)
- Sound of Barra SAC (NatureScot Site Code 8602; EU Site Code UK0012705)

The HRA will be a stand-alone document.

4.4 Water Environment

4.4.1 Baseline

The proposed Project is located downstream of an existing culvert along the northern bank of an unnamed land drain which discharges into the Bay of Traigh Mhòr. Ordnance Survey mapping and aerial imagery confirm the existing watercourse exhibits a straightened planform which issues in an upland area at approximately National Grid Reference (NGR) NF 69660 04500. The watercourse flows northwards from its headwaters prior to conveyance through an existing culvert below the unnamed coastal road. Site photography indicates the watercourse has been realigned downstream of the existing culvert parallel to the coastline and exhibits limited hydromorphological features and processes. The realignment has been constructed and maintained through dredging and the use of sandbags which has allowed tidally driven beach sediments to accumulate, creating a spit-like sand bar along the watercourse's current alignment.

Historical mapping from 1967⁴ suggests that the natural flow path of the watercourse would continue north out into the bay and across the existing runway. Site records suggest the downstream reach has been realigned since at least 1994 and maintenance records show the spit-like sand bar is subject to regular inundation from waves and/or tides, which results in the bank breaching in various locations. Maintenance is required in these locations. This is usually dredging of the channel around six to eight times per year.

The watercourse is not classified under the Water Framework Directive (WFD), however the bay of Traigh Mhòr is part of the Sound of Barra coastal water body⁵ (ID: 200494). Further details on the Sound of Barra coastal waterbody including designated areas within the vicinity of the proposed works are provided in Table 4.5.

Table 4.5: Water body WFD parameters for the Sound of Barra

Water body ID and type	200494
Water body name	Sound of Barra

⁴ National Library Scotland 2021: <https://maps.nls.uk>

⁵ Marine Scotland 2021: <http://marine.gov.scot/maps/1110>

Water body ID and type	200494
Area	180.35 km ²
Type	Coastal
Hydromorphological designation	Not designated artificial or heavily modified
Current overall status	High (2016)
Protected area designation and list of protected areas	<ul style="list-style-type: none"> Shellfish water protected areas (OSCP) – Sound of Barra (ID:72)
Current status objective	Maintain High status

4.4.2 Potential Impacts, Mitigation and Residual Effects

The proposed Project aims to reinforce the existing watercourse bank downstream of the existing culvert to prevent tidal breaches, which create a flood risk to the operational airfield. It is anticipated that the rock armour geotextile solution will provide the sediment bank with improved protection against wave action. The geotextile within the rock armour will also help to restrict water flow through the rock armour and aid in the reformation of the sediment bank.

During construction there would be a requirement to excavate the existing sandbar to place rock armour and geotextile. This would remove existing sediment from the system and potentially disturb sediments which could be transported cross-shore through wave and tidal action. Additionally, the tracking of plant and machinery along the beach may cause compaction and disturbance of existing beach sediments with the potential to create localised sediment plumes should this sediment become mobilised. Compacted sand also changes the erosive capacity of the beach, making it more susceptible to erosion because it does not behave in the same manner as naturally occurring. While some sediment movement is anticipated, given the scale of the proposed Project, this is envisaged to be of low impact and temporary in nature whilst construction activities occur. Additionally, given the scale of the coastal waterbody, any localised sediment plumes would likely be quickly dispersed.

It is likely dredging of the watercourse would be required to provide a dry working area for the installation of rock armour. This would lead to the removal of sediment from the watercourse and may create an over-deep channel cross section which could increase flow velocities downstream while sediment reaccumulates leading to changes in the bed, bank and riverine processes within the channel. There is potential for a decline in surface water quality should accidental spillages of fuel, oil and/or other contaminants from plant and machinery enter the watercourse.

Should the above impacts occur is considered that they would be highly localised, temporary and minimal. The Contractor will adhere to good practice and management measures as well as those mitigation measures outlined in Section 4.3: Ecology and Biodiversity, the watercourse is currently dredged 6-8 times a year and therefore dredging during construction would not equate to a change from baseline conditions. Considering the above, any potential impacts during construction are likely to be minor.

During operation, the rock armour would form a change to existing baseline conditions through the creation of hard reinforcement, forming a vertical barrier to existing coastal processes. The existing bar is likely to be subject to tidal inundation and/or wave overtopping and back wash whereby sediment moving up the beach through tidal and wave action is deposited at the base on the seaward side, on top of, and on, the leeward side of the bank. Hard reinforcement in the form of rock armour would restrict sediment deposition over this area by creation of a vertical barrier which may lead to changes to the local sediment regime at this site; sediment is redistributed across shore and dispersed in other areas of the bay which may include the seaward accretion of the sandbar.

There is the potential of localised scour along the toe of the rock armour (seaward). This would be an ongoing process related to wave and tidal action and may cause a temporary localised drop in beach levels as the sand bar re-establishes. On the landward side, rock armour has the potential to narrow the watercourse cross section. This could increase flow velocities within downstream reaches during high flow events leading to potential changes to bed and bank structure, and riverine processes. Although rock armour will limit tidal sediment input into the watercourse by creating a vertical barrier between the watercourse and tidal process, aeolian transport of beach sediment into the watercourse is still a possibility and therefore dredging may still be required as part of ongoing maintenance. Given that the amount of sediment input to the watercourse will be reduced by the rock armour, the frequency of dredging will also likely reduce which would be an improvement on baseline conditions.

Given the overall small scale of the Project in relation to the coastal waterbody, the inclusion of a geotextile membrane to allow sediment accumulation and subsequent re-establishment of the sandbar, the lack of channel features and processes within the downstream channel and a reduction in the frequency of dredging, operational impacts are anticipated to be minor. It is not anticipated there will be any operational impacts to surface water quality as a result of the proposed Project.

4.4.3 Water Framework Directive Assessment

Any activity which has the potential to have an impact on a water body will need consideration in terms of whether it could cause deterioration in the ecological status or potential of a waterbody. It is, therefore, necessary to consider the possible changes associated with the proposed scheme under the Water Framework Directive.

Where there are protected sites the WFD aims for compliance with any relevant standards or objectives for these sites including Conservation of Habitats and Species Regulations (assessed as part of the HRA).

The WFD status of the Sound of Barra coastal waterbody is high as of 2016. As outlined above it is unlikely that the proposed project would lead to any significant impacts that would lead to the deterioration of the current high status.

4.5 Cultural Heritage

4.5.1 Baseline

The cultural heritage baseline was established using information available online from Pastmap⁶ for designated heritage assets, and non-designated heritage assets recorded on Canmore, Canmore Maritime and the West of Scotland Archaeological Service Historic 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 experienced were considered, however none were identified for inclusion in the baseline.

No designated heritage assets have been identified within 200m of the red line boundary of the proposed Project. The closest designated heritage asset is the Category B listed building 'Suidheachan' (LB5903) which is located approximately 255m to the north-west of the red line boundary. Undesignated heritage assets within 200m of the red line boundary of the proposed Project are identified in Table 4.6.

⁶ <https://pastmap.org.uk/map>

Table 4.6: Heritage Assets within 200m of the red line boundary of the proposed Project (from Pastmap, accessed 22 October 2021).

Description	HES/HER/Canmore Reference	OS National Grid Reference
Barra, Traigh Mhor: <i>Blackhouse (Post Medieval)</i> (Canmore)	319765	NF 6948 0545
Traigh Mhor: <i>Black House</i> (HER)	MWE142926	NF 6950 0538
Barra, Ben Vaslain: <i>Building(s) (Period Unassigned), Enclosure (Period Unassigned), Wall (Period Unassigned)</i> (Canmore/HER)	126086	NF 6959 0509
G29 Greian, Barra: <i>Black House</i> (HER)	MWE144264	NF 6964 0505
Barra, Ben Vaslain: <i>Shieling Hut(s) (Post Medieval)</i> (Canmore/HER)	9723	NF 6996 0490

4.5.2 Potential Impacts, Mitigation and Residual Effects

While the five undesignated assets identified in Table 4.6 are within 200m of the site, the proposed Project would not change the way the surroundings of the assets contribute to how they are understood, appreciated and experienced, and therefore no impacts on their setting are predicted and no specific mitigation measures are recommended.

Accordingly, no significant residual effects are anticipated as a result of the proposed Project.

4.6 Landscape and Visual

4.6.1 Baseline

The Tràigh Mhòr bay forms the focal point of the area. The area surrounding the site is mostly water (Tràigh Mhòr bay), with land bound to the south of the site. The topography of the land is relatively flat, but slopes slightly downwards from the road to the bay. The Barra Airport runway is located in the bay, and buildings associated with the airport are located approximately 420m to the north of the proposed Project site.

The visual receptors are as follows:

- The closest residential building is located approximately 145m to the south-east of the site on a small area of land situated between the road and the bay. In addition, Suidheachan House is located approximately 255m to the north-west of the site, to the west of the road. Both properties look directly onto Tràigh Mhòr bay.
- Buildings associated with Barra Airport and Barra Fire Station are located approximately 420m to the north of the site, looking onto the bay.
- Transient receptors will be able to see any works that are underway.

There is one landscape designation within 10km of the site: South Uist Machair National Scenic Area, located approximately 9.9km north of the site on the southern tip of the island of South Uist at its closest point.

The National Coastal Character Assessment⁷ Guidance Note⁸ of the Outer Hebrides shows the proposed Project is within an area described as Sounds, Narrows and Islands. This is described in the Scottish Natural Heritage Commissioned Report No. 103⁹ (ROAME No. F03AA06) as:

⁷ <https://www.nature.scot/sites/default/files/2018-05/National%20coastal%20character%20map.pdf>

⁸ <https://www.nature.scot/sites/default/files/2018-02/Guidance%20Note%20-%20Coastal%20Character%20Assessment.pdf>

⁹ <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>

'A deeply indented and fragmented coastline, with islands and mainland enclosing narrows and sounds to form a strong articulated coast. The coastline is generally low and rocky and is often an 'incidental' feature, the focus being the narrow elongated stretches of open water which act as a visual foil to the often diverse landform of mountains and craggy islands. Sandy beaches occur occasionally at inlets, with a notable, more extensive series lying between Arisaig and Morar. The coast is strongly fragmented in places, Description of coastal character types from Scottish Natural Heritage Commissioned Report No. 103 (ROAME No. F03AA06) 10 breaking up to form a myriad of small islands such as the Slate Islands of the Argyll coast. Settlement occurs along the narrow coastal edge of sheltered sea lochs. This type is backed occasionally by crofting land but mainly comprises moorland hills. Forestry occurs in places against the coast with ancient woodlands found in more inaccessible narrows and fjords. High mountain massif occurs close to the coast and dramatically features in views. Views of islands tend to be the focus from the Mainland and vice versa, with mountain ridges e.g. Cuillin on Skye/Paps of Jura/Rum and Harris being particularly arresting. The profiles of sea, islands and mountain ranges build up different contrasting layers to create an overall high scenic quality. The open sea is not generally obvious because views are characteristically very contained in narrows and sounds, which are broken by islands. A broader bay containing the Small Isles between Mallaig and North Ardnamurchan allows more open views in contrast. Fish farming occurs in sheltered bays and the Sounds are important ferry routes between islands and the Mainland'.

4.6.2 Potential Impacts, Mitigation and Residual Effects

The only anticipated visual change will be the installation of the rock armour; however, this is considered to be negligible in terms of visual impact.

There may be temporary views of plant during construction, 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 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 installation of rock armour by excavation of the existing beach / riverbank as described in Section 2 of this report. The rock armour is locally available and excavated sand and silt will be reused as part of the scheme.

As excavated sand and silt will be reused on site, generation of waste is anticipated to be limited to the removal of the old decaying sandbags, with any contents emptied in-situ prior to removal. The Contractor will be expected to follow the 'Waste Hierarchy'¹⁰ 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.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 Barra Airport will be valid and cover the full extents of the proposed Project. These should be updated to reflect anticipated works to the rock armour solution.

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 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 Tràigh Mhòr bay (construction plant being present in and around the bay). 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 Comhairle nan Eilean Siar Planning Portal¹¹ identified the following planning application located within 500m of the site: terminal refurbishment and new appliance bay at Barra Airport (planning references 21/00493/PERDEV and 21/00494/PERDEV). Both applications were approved on 17 September 2021. Given the small scale of the works required for these developments, it is unlikely that there will be any cumulative effects with the proposed Project.

A review of current Marine Licence Applications¹² on Marine Scotland's website shows there are two licences granted within Tràigh Mhòr. One licence (ID: 06992/20/0) is for the removal of sandbanks and deposition of the removed sand within the bay, and was applied for by Barra Airport. The licence was granted on 20 April 2020 and expires on 19 April 2030. The other licence (ID: 07907/19/0) is for a fish farm within the bay, and was applied for by Isle of Barra Oysters. The licence was granted on 23 December 2019 with no expiry date. However, neither licence is located within the scheme extents of the proposed Project.

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 4.7.

¹¹<https://planning.cne-siar.gov.uk/PublicAccess/>

¹² <http://marine.gov.scot/marine-licence-applications>

Table 4.7 Specific Mitigation Measures

Mitigation Item	Timing of Measure	Description	Mitigation Purpose/Objective	Specific Consultation or Approval Required
PS-01	Pre-construction	Pre-construction ecological surveys will be conducted to verify, and where necessary update, the baseline prior to the proposed Project commencing.	To capture any changes to the baseline which may affect the outcome of the ecological assessment for the proposed Project.	n/a
PS-02	Pre-construction and construction	<div style="background-color: black; height: 1.2em; width: 100%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 1.2em; width: 100%; margin-bottom: 5px;"></div> Mitigation measures will be stipulated as part of the licence and may include no working during hours of darkness and soft starts of machinery to reduce disturbance	To mitigate effects of construction activities on otter and to comply with conservation legislation.	NatureScot
PS-03	Construction	The Contractor will observe any sediment and material movement and increase mitigation where required due to changing tidal/wave movements. 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-04	Pre-Construction	If required the Contractor will obtain SSSI Consent for the proposed works and adhered to any conditions of the consent during construction.	To protect the integrity of the Eoligarry SSSI.	NatureScot

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 construction phase) and adequately mitigated following best practice guidelines and targeted measures as set out in Tables 4.1 and 4.7, such that there are no residual significant effects.

- As described in Regulation 2(1), the proposed Project is within a sensitive area (Eoligarry SSSI) a SSSI consent may be required for the works, further consultation with NatureScot is underway to confirm. Other sensitive areas within 2km of the proposed Project site are the Sound of Barra SAC approximately 450m east of the site, the West Coast of the Outer Hebrides SPA approximately 750m east of the site, and Eoligarry SPA approximately 1.9km north-east of the site. An HRA will be undertaken for the proposed works. Given the localised nature of the works, no significant direct or indirect effects on the Eoligarry SSSI or the other designated sites are anticipated. With appropriate mitigation in place, the designated features of the SSSI are not expected to be significantly affected.

- The proposed Project encompasses required works for the installation of a rock armour bund by excavation of the existing beach / riverbank, with the bund placed on a geotextile. The crest of the bund will be approximately 300mm above existing bank level. Excavated silt will be reused by placing on the riverside of the bund to encourage initial bank formation and to maintain current aesthetics. The rock armour is locally available and will be imported from a location approximately two miles from the site.
- 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 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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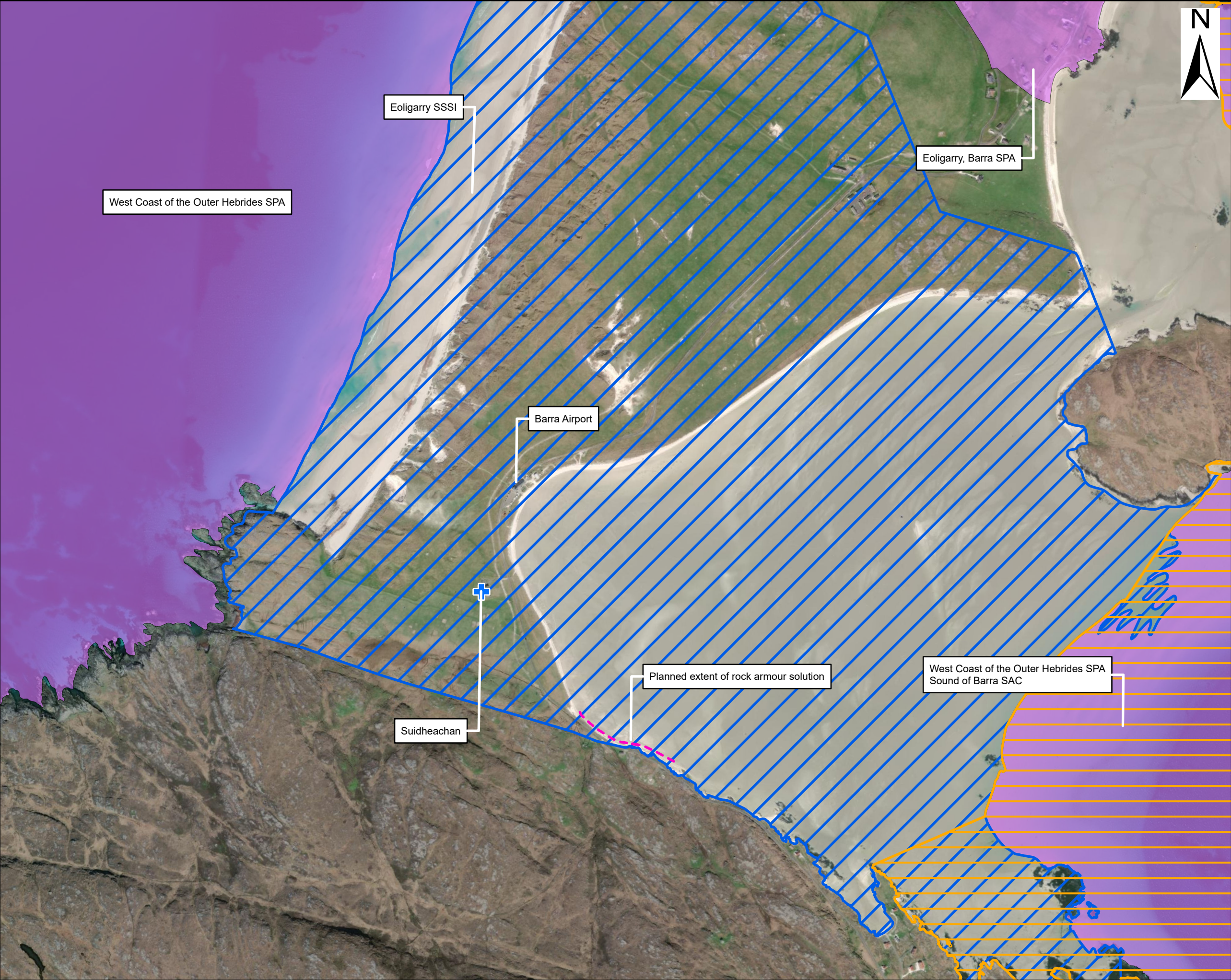
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Appendix A. Figures



Legend

Planned extent of rock armour solution

Listed Buildings

B

Environmental Constraints

Special Protection Areas (SPA)

Special Areas of Conservation (SAC)

Sites of Special Scientific Interest (SSSI)

0	NOV 21	For Information	AH	DD	DD	AS
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd

Jacobs

Client

CMAL

Project

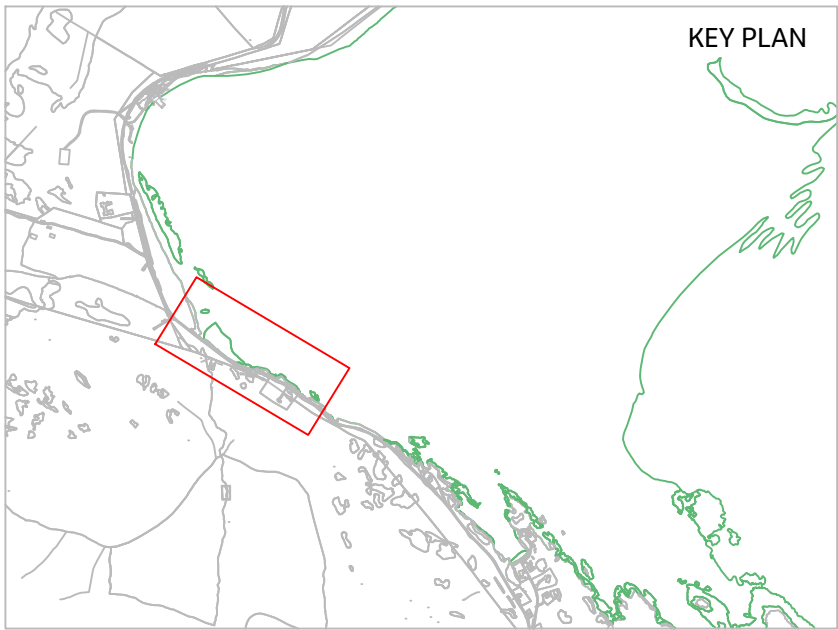
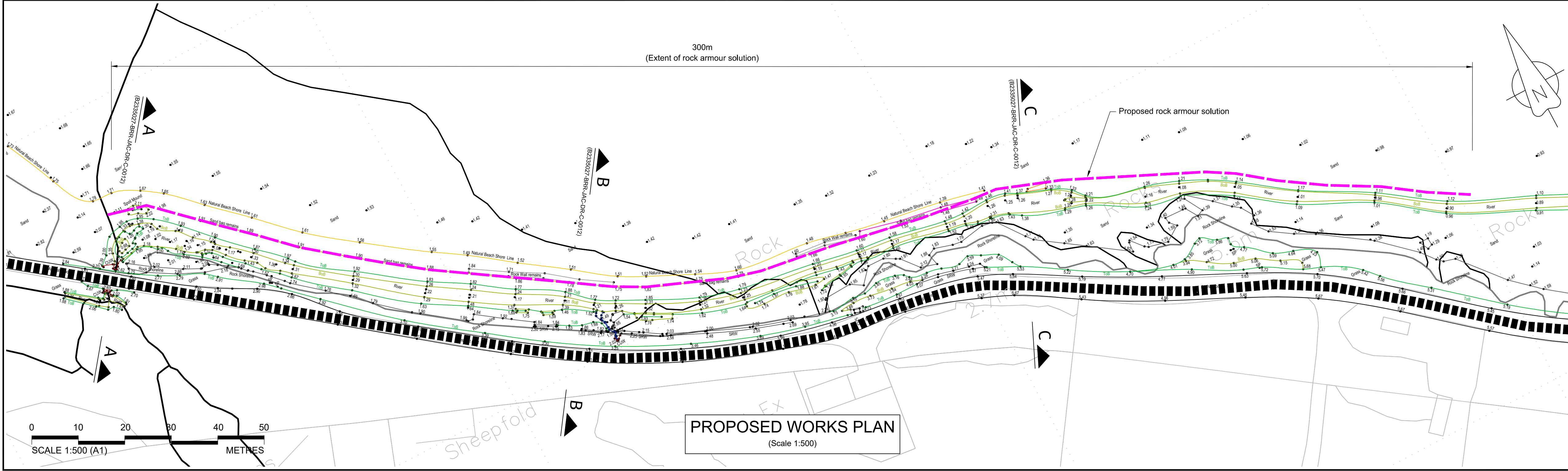
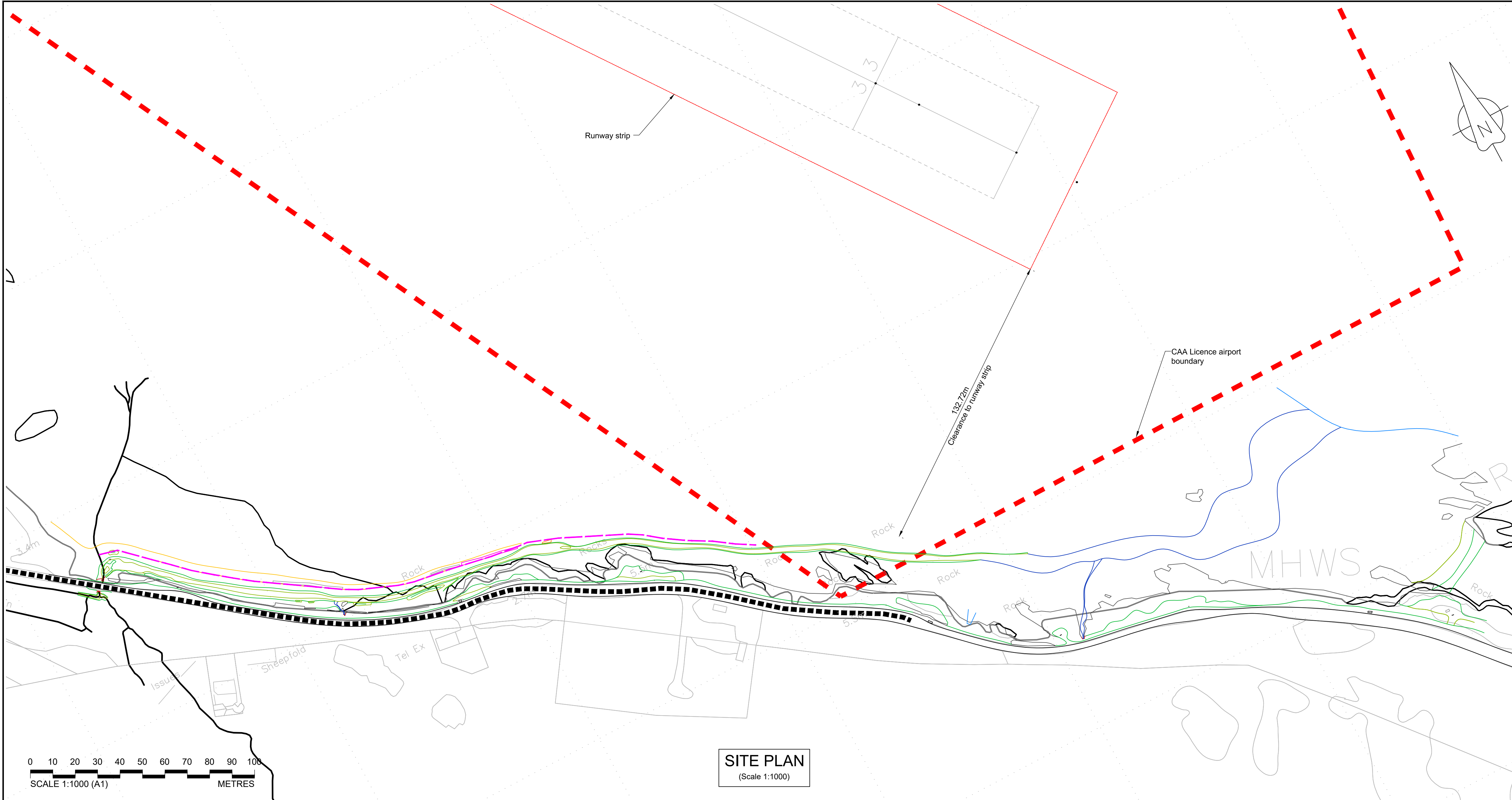
Barra Airport

Environmental Baseline Constraints

Sheet 1 of 1		
Drawing Status	For Issue	
Scale @A3	1:10,000	DO NOT SCALE
Jacobs No.	B2335027	
BIM No.		
Drawing Number	Figure 1a	

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LEGEND

PLANNED LAYOUT OF PROPOSED ROCK ARMOUR SOLUTION, SEE CROSS SECTION ON DRAWING B2335027-BRR-JAC-DR-C-0012 FOR DETAILS

SAFETY, HEALTH AND ENVIRONMENT INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

- CONSTRUCTION
- Operational airport - potential for high noise levels.
 - Taxiing aircraft nearby - FOD (Foreign Object Damage) risk.
 - Risk of restrictions on lighting levels.
 - Working next to watercourse.
 - Working in tidal environment.
 - Excavation of silt material - stability of adjacent ground.
 - Destablising existing riverbank.
 - Working adjacent to live road - collision with vehicles.
 - Ensure adequate access for construction vehicle movement & material delivery & safe storage of building materials.
 - Observe local Island weather warnings.

- MAINTENANCE / CLEANING
- Operational airport - high noise levels.
 - Working next to watercourse.
 - Working in tidal environment.
 - Stability of rock armour.
 - Taxiing aircraft nearby - FOD risk.
 - Observe local Island weather warnings

- DECOMMISSIONING / DEMOLITION
- Operational airport - potential for high noise levels.
 - Taxiing aircraft nearby - FOD risk.
 - Risk of restrictions on lighting levels.
 - Working next to watercourse.
 - Working in tidal environment.
 - Working adjacent to live road - collision with vehicles.
 - Observe local Island weather warnings.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

P01	04/11/2021	FOR INFORMATION	GM	JS	JD	AS
Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd

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HIGHLANDS AND ISLANDS AIRPORTS LIMITED

Project
BARRA AIRPORT
BEACH RIVER PROTECTION

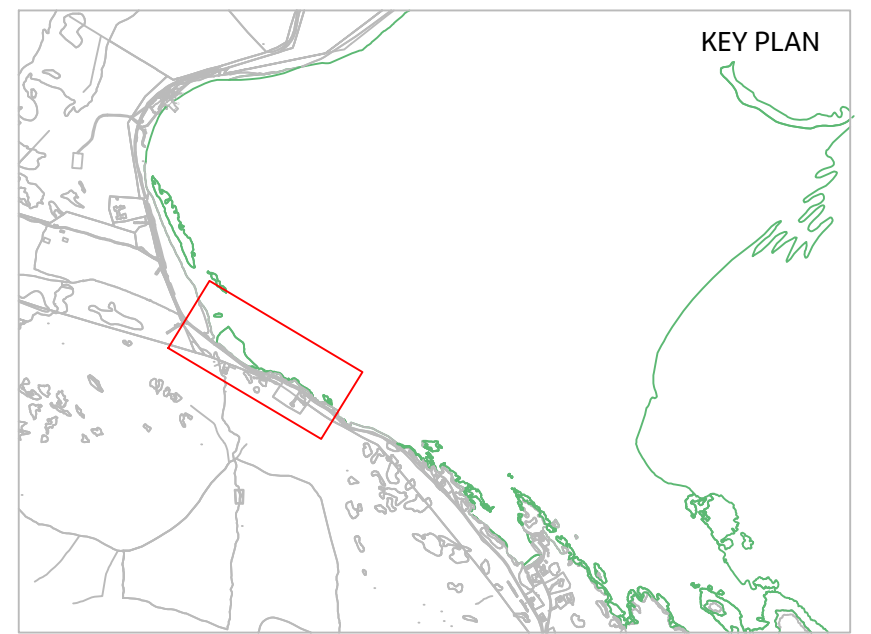
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**ROCK ARMOUR
PROPOSED SOLUTIONS
GENERAL ARRANGEMENT**

Drawing status
ISSUED FOR INFORMATION

Scale	AS SHOWN @A1	DO NOT SCALE
Jacobs No.	B2335027	Rev
Client no.	HIA-01358	P01

Drawing number
B2335027-BRR-JAC-DR-C-0011

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SAFETY, HEALTH AND ENVIRONMENT INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following :

CONSTRUCTION

- Operational airport - potential for high noise levels.
- Taxiing aircraft nearby - FOD (Foreign Object Damage) risk.
- Risk of restrictions on lighting levels.
- Working next to watercourse.
- Working in tidal environment.
- Excavation of silt material - stability of adjacent ground.
- Destabilising existing riverbank.
- Working adjacent to live road - collision with vehicles.
- Ensure adequate access for construction vehicle movement & material delivery & safe storage of building materials.
- Observe local Island weather warnings.

MAINTENANCE / CLEANING

- Operational airport - high noise levels.
- Working next to watercourse.
- Working in tidal environment.
- Stability of rock armour.
- Taxiing aircraft nearby - FOD risk.
- Observe local Island weather warnings

DECOMMISSIONING / DEMOLITION

- Operational airport - potential for high noise levels.
- Taxiing aircraft nearby - FOD risk.
- Risk of restrictions on lighting levels.
- Working next to watercourse.
- Working in tidal environment.
- Working adjacent to live road - collision with vehicles.
- Observe local Island weather warnings.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

P01	04/11/2021	FOR INFORMATION	GM	JS	JD	AS
Rev	Rev. Date	Purpose of revision	Drawn	Checkd	Rev'd	Apprv'd

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Client



HIGHLANDS AND ISLANDS AIRPORTS LIMITED

Project	
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BARRA AIRPORT
BEACH RIVER PROTECTION

Drawing title

ROCK ARMOUR PROPOSED SOLUTIONS CROSS SECTIONS

Drawing status

ISSUED FOR INFORMATION

Scale	AS SHOWN @A1	DO NOT SCALE
Jacobs No.	B2335027	Rev
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Drawing number

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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 rock armour installation may have the potential to alter the coast around the runway. 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 installing a rock armour bund on a geotextile, with the crest of the bund approximately 300mm above existing bank level. Excavated silt will be placed on the riverside of the bund to encourage initial bank formation and maintain current aesthetics.
	(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 provide improved protection to the sediment bank from wave action and to allow the bank to quickly reform following any washout events. It is anticipated this will be imported locally via HGV.
	(d) the production of waste;	No	As excavated sand and silt will be reused on site, generation of waste is anticipated to be limited to the removal of the old decaying sandbags, with any contents emptied in-situ prior to removal, and will be managed in accordance with a measures to be outlined in the CEMP 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 measures identified in the CEMP. 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	No	The proposed Project site is not located within a geographical region that is subject to natural disasters.

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	(e) pollution and nuisances	No	During construction, potential noise and air quality impacts will be mitigated through measures identified in the CEMP. 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	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
	caused by climate change, in accordance with scientific knowledge		
	(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 measures identified in the CEMP.
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 installing a rock armour bund on a geotextile, with the crest of the bund approximately 300mm above existing bank level. Excavated silt will be placed on the riverside of the bund to encourage initial bank formation and maintain current aesthetics. As such, the works are modifying the site to its surrounding setting.
	(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 – <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> I. Not applicable to the proposed Project. II. The proposed Project is located within a marine area, which is developed currently (as a short-runway airport in the bay of Traigh Mhòr). 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 located within a European site or other areas classified or protected under national legislation (Eoligarry SSSI). Given the localised nature of the works, no significant direct or indirect effects on the Eoligarry SSSI or the other designated sites are anticipated. With appropriate mitigation in place, the designated features of the SSSI are not expected to be significantly affected. 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	Class	Applicable to proposed Project	Justification
Schedule 3 Characteristics of the potential impact 3. The likely significant effects of the works on the environment must 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 -	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; 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.	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 breeding and/or wintering birds have been identified depending on timing of project, however due to the nature and scale of the proposed Project, in addition to the application of mitigation identified in Tables 4.1 and 4.7, residual effects are not anticipated to be significant. Furthermore, due to the nature and scale of the proposed Project, no significant noise impacts on marine species are anticipated. As discussed in Section 4.3, small scale linear loss of habitat within the SSSI is anticipated, however as the sediment is highly dynamic in this area, this loss is unlikely to have any significant residual effects.