

Appropriate Assessment for dredging, deposit of dredged material and construction of a rock armour breakwater at Iona Ferry Terminal, Baile Mor, Isle of Iona. March 2024.

**MARINE DIRECTORATE - LICENSING OPERATIONS TEAM'S  
ASSESSMENT OF THE PROJECT'S IMPLICATIONS FOR  
DESIGNATED SPECIAL AREAS OF CONSERVATION IN VIEW OF THE  
SITES' CONSERVATION OBJECTIVES.**

APPLICATION FOR MARINE LICENCES UNDER THE MARINE (SCOTLAND) ACT  
2010 FOR DREDGING AND THE DEPOSIT OF DREDGED MATERIAL, AND  
CONSTRUCTION OF A ROCK ARMOUR BREAKWATER

SITE DETAILS: IONA FERRY TERMINAL, BAILE MÒR, ISLE OF IONA

<b>Name</b>	<b>Assessor or Approver</b>	<b>Date</b>
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## **SECTION 1: BACKGROUND**

### **1 Appropriate assessment conclusion**

- 1.1 This appropriate assessment (“AA”) concludes that there will be no adverse effect on the site integrity of the Inner Hebrides and the Minches Special Area of Conservation (“SAC”) from the Argyll and Bute Council proposal either in isolation or in combination with other plans or projects.
- 1.2 Marine Directorate – Licensing Operations Team (“MD-LOT”) considers that the most up to date and best scientific advice available has been used in reaching the conclusion that the Argyll and Bute Council (“the Applicant”) proposal will not adversely affect the integrity of the Inner Hebrides and the Minches SAC and is satisfied that no reasonable scientific doubt remains.

### **2 Introduction**

- 2.1 This is a record of the AA undertaken by MD-LOT in regards to the Argyll and Bute Council proposal to carry out dredging, deposit dredged materials and construction of a rock armour breakwater, as required under Regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 Habitats Regulations”). MD-LOT, as the 'competent authority' under the 1994 Habitats Regulations, has to be satisfied that the project will not adversely affect the integrity of any European site (special areas of conservation and special protection areas), either alone or in combination with other plans or projects, before it can grant consent for the project.
- 2.2 NatureScot, operating name of Scottish Natural Heritage, has been consulted.

### **3 Details of proposed project**

#### Capital dredging and deposit of dredged substances or objects

- 3.1 The approximate dredge area is 2,017 square metres (“m<sup>2</sup>”), located to the north east of the existing slipway and will increase the water depth to a level of up to -3 metres (“m”) chart datum. The dredge volume is expected to be 1,225 cubic metres equating to 2,205 wet tonnes. However, in order to provide flexibility, the Applicant has requested for this removal volume to be permitted per annum over the three-year duration of the licence. It is estimated 95% of the substances or objects to be dredged will be sand, with the remaining 5% being comprised of pebbles, cobbles and boulders. A backhoe dredger will be used to remove the material. Dredge material will be placed in a hopper barge and deposited at the Portnahaven authorised sea deposit site (MA035), the closest open dredge deposit site, approximately 80 kilometres (“km”)

away from the works location. The capital dredging is expected to be carried out overnight, and will be completed prior to construction of the breakwater.

### Construction of a new rock armour breakwater

- 3.2 The breakwater will be located approximately 70 m south of the existing slipway and this element of the proposal will have a total footprint of approximately 2.18 hectares. This will consist of a breakwater of 185 m crest length and 4 m width. The maximum crest level will be 7.71 m CD, with a 2:1 slope on the outer face (non-slipway side) and 1:1.5 on the inner face (slipway side).
- 3.3 The base of the breakwater will be lined with 12,000 m<sup>2</sup> of tear resistant geotextile membrane and the bedding placed on top of this layer will comprise of a 500 millimetre deep layer of 300-1000 kilogram (“kg”) graded rock. The core will be constructed of 1000-3000 kg graded rock and the outer layer of 3000-6000 kg graded rock. A 3 m wide and 2.5 m high toe (the level of the lowest part of the structure, forming the transition to the underlying ground) will be constructed on each face of 3000-6000 kg graded rock. The toe will not be visible as it will be under a layer of sediment. Therefore, an area of sediment will need to be excavated, however this material will be replaced after construction is completed. At the end of the breakwater, a 5:1 sloped structure will be constructed of 1000-3000 kg of graded rock. In total, the volume of rock armour requested in the application is 129,900 tonnes.
- 3.4 Clean quarried rock will be used in the construction of the breakwater. The rock armour and materials will be transported to site by barge and stored below Mean High Water Springs (“MHWS”) on the south side of the proposed breakwater.
- 3.5 Pre-cast and in-situ concrete (26,706 kg) will be used along with steel / iron reinforcement (1,080 kg) to construct an aid to navigation light beacon installation on the breakwater.
- 3.6 The proposal will also likely involve the removal of an existing toilet block septic tank outfall pipe with concrete surround prior to construction of the breakwater, and subsequent partial reinstatement with new pipe and concrete surround (the section from the septic through the breakwater to where it breaks through the south face only). Following completion of the breakwater, installation of final length of pipe and concrete protection for the toilet block septic tank outfall will be carried out to reinstate it to its original length. However, if the Applicant finds the pipe to be in good condition, the replacement works may not take place.
- 3.7 Temporary deposits of navigation warning buoys and lights will also be required, and a 90 m x 30 m barge of 12,000 deadweight tonnes will be on site for delivery and installation of materials throughout the duration of the works. Vessels will be used for

construction activities and will likely include a flat top barge for material deliveries and a jack-up barge.

3.8 The total duration of the construction work is expected to be 52 weeks, and will be completed within the requested 3 year period of the licence.

#### 4 Consultation

4.1 NatureScot was consulted on 08 November 2023 and provided its response on 24 January 2024.

#### 5 Main points raised during consultation

5.1 NatureScot advised that Argyll and Bute Council's proposal would have a likely significant effect on the harbour porpoise qualifying interest of the Inner Hebrides and the Minches SAC, and advised that an AA was required.

## SECTION 2: INFORMATION ON EUROPEAN SITES

#### 6 Background information and qualifying interests for the relevant European site

6.1 This section provides links to the NatureScot SiteLink website ("SiteLink") where the background information on the site being considered in this assessment is available. The qualifying interests for the site are listed as are the conservation objectives.

**Table 1 Name of European site affected and relevant link to SiteLink**

<b>Inner Hebrides and the Minches SAC</b> <a href="https://sitelink.nature.scot/site/10508">https://sitelink.nature.scot/site/10508</a>
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**Table 2 Qualifying interests**

<b>Inner Hebrides and the Minches SAC</b> Harbour porpoise ( <i>Phocoena phocoena</i> )
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**Table 3 Conservation objectives**

<b>Inner Hebrides and the Minches SAC</b> 1. To ensure that the Inner Hebrides and the Minches SAC continues to make an appropriate contribution to harbour porpoise remaining at favourable conservation status. 2. To ensure for harbour porpoise within the context of environmental changes, that the integrity of the Inner Hebrides and the Minches SAC is maintained through 2a, 2b and 2c:
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2a. Harbour porpoise within the Inner Hebrides and the Minches are not at significant risk from injury or killing.  
2b. The distribution of harbour porpoise throughout the site is maintained by avoiding significant disturbance.  
2c. The condition of supporting habitats and the availability of prey for harbour porpoise are maintained.

## **SECTION 3: ASSESSMENT IN RELATION TO REGULATION 48 OF THE CONSERVATION (NATURAL HABITATS, &C.) REGULATIONS 1994**

### **7 Requirement for appropriate assessment**

7.1 Is the project directly connected with or necessary to the conservation management of the site?

The project is not directly connected with or necessary to the conservation management of the site.

7.2 Is the project likely to have a significant effect on the qualifying interest?

In its response dated 24 January 2024, NatureScot advised that the proposal would have a likely significant effect on the harbour porpoise qualifying interest of the Inner Hebrides and the Minches SAC due to potential disturbance caused by vessel presence and underwater noise from vessels and construction activities.

MD-LOT agrees with NatureScot's advice and has undertaken an AA for the Inner Hebrides and the Minches SAC.

### **8 Appropriate assessment of the implications for the site in view of the site's conservation objectives.**

8.1 NatureScot advised that the proposal lies within the Inner Hebrides and the Minches SAC, and that there is potential for vessel noise and presence associated with the dredging and construction activities to disturb the harbour porpoise qualifying interest. However, NatureScot noted the localised, short term and nearshore nature of the activities, and concluded that as a result, the proposal would not adversely affect the integrity of the SAC. NatureScot also confirmed the deposit site for dredged material was outwith the SAC, and vessel movements between the dredge area and the deposit site will not have an adverse effect on site integrity due to the small number of transits and the availability of other parts of the SAC and sea areas for the harbour

porpoise to utilise during any temporary disturbance from vessel noise or presence. In respect of the operational phase of the works, NatureScot advised that as the proposal is not expected to result in an increase to vessel movements while operational, there would be no adverse effect on site integrity as a result of the operation of the proposed works.

- 8.2 MD-LOT has considered the implications for the site in view of the conservation objectives and agrees with NatureScot that the proposal will not adversely affect the integrity of the Inner Hebrides and the Minches SAC.

## **9 In combination assessment**

- 9.1 MD-LOT has carried out an in combination assessment to ascertain whether the Argyll and Bute Council proposal will have a cumulative effect with other plans or projects which, in combination, would have the potential to affect the qualifying interests of the Inner Hebrides and the Minches SAC.

- 9.2 The following projects currently have an active marine licence, section 36 consent, or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Inner Hebrides and the Minches SAC.

### **9.3 Vonin Scotland Limited**

The Proposed Works seek to reclaim and infill two areas of foreshore to enable the construction of a net washing facility. Rock armour will be placed at the outward extent with compacted stone placed behind to raise the land to the required ground level. An initial layer of boulders and cobbles will be placed across the areas to be reclaimed, laid over with a layer of geotextile membrane. This process will be repeated until the desired ground level is achieved. Clean rock, sourced on site, will be transported to the site by dumper truck. The rocks will be placed utilising a land based 20 tonne tracked excavator. A total of 1000 tonnes of material will be employed in the construction. The total area of the works will be 1500 square metres.

### **9.4 UK Marine Renewable Power Ltd – Geophysical Surveys – West Colonsay to North Ayrshire**

Geophysical surveys to identify and assess surface and subsurface features within the ScotWind W1 PO site and potential export cable corridor. The equipment used will include Multi-Beam Echo Sounder (“MBES”), side-scan sonar, Sub-bottom Profiler (“SBP”) and Ultra-Short Baseline (“USBL”). Survey campaigns are planned to occur between June 2021 and August 2027, with a total duration of offshore survey activities of approximately 18 months. Surveys may occur at any time of year within this period,

however the surveys are planned to occur in three discrete campaigns, each within the period April to November and lasting up to four months in duration.

#### 9.5 Flex Marine Power Ltd – Tidal Turbine

Flex Marine Power Ltd (in association with the Islay Energy Trust) proposes to install a single 70kW Swimmer Turbine (a tidal turbine) in the southern end of the Sound of Islay with the power being transmitted to a power unit of Dunlossit Estate via an umbilical. The proposed start date is summer 2024, with the operational period anticipated to last approximately 5 years.

#### 9.6 Caledonian Maritime Assets Limited – Capital Dredge and sea disposal and Construction at Kennacraig Ferry Terminal Development

Installation of new 85 metre piled wall by means of tubular king piles set to rock with sheet piles driven into place. Imported granular material used as infill between piles. Toe protection work, prior to dredge, by placement of collars around toe with dowels into bedrock. A capital dredge by means of backhoe, supported by trailer suction to increase depth to -5.5m CD. Approximately 23,650 wet tonnes will be removed and deposited in Portnahaven Site ID MA035. Dredge restricted to 15 April to 15 July and 1 October to 30 November.

#### 9.7 Comhairle nan Eilean Siar – Lochmaddy Capital Dredging

Capital dredging and rock removal at Lochmaddy Ferry Terminal to facilitate the deepening of the current berthing area. This is a continuation of the previous dredging work which was not completed prior to licence expiry, and will involve the removal of approximately 500 cubic metres of rock via breaker attached to longreach excavator, and plough dredging involving the redistribution of approximately 360 wet tonnes of dredged material. Hard dredging is expected to be completed within 2 months of it commencing, and plough dredging is expected to last 2 weeks. Dredging activity is expected to start shortly after any licence is issued, but the application covers 3 years in order to provide flexibility.

#### 9.8 Comhairle nan Eilean Siar – Lochmaddy Ferry Terminal Upgrade

Comhairle nan Eilean Siar proposes to upgrade the existing Lochmaddy Ferry Terminal. The existing pier will be repaired and strengthened before it is extended with a prefabricated concrete caisson filled with imported rock fill. Scour protection will be placed around the caisson. The extension is approximately 35m long, providing an overall pier length of 145m. A total of 16,000 wet tonnes of material will be dredged from the site and deposited at the designated Stornoway deposit site. This will be carried out during the winter months when usage of the pontoons and moorings is



likely to be lowest. To facilitate dredging adjacent to the linkspan, the pontoon anchors will be relocated for the duration of the dredging and reinstated once complete. The marshalling area will be increased, and a hard standing area created by reclaiming land to the north east and north west of the existing marshalling area. A small hill on the site will be removed and the material used to create a rock revetment along the seaward edge of the new marshalling area. Any remaining material will be used as infill for the land reclamation.

9.9 Stornoway Harbour Authority - Construction and Capital Dredging - Deep Water Port, Glumaig Bay, Stornoway

Construction of a deep water port at Glumaig Harbour, Stornoway, Isle of Lewis including construction of: 360 metre main quay; heavy load area; 100 metre open-piled finger pontoon; bollard island; levelled area by land reclamation; link road by land reclamation; 140 metre freight ferry berth and linkspan. The project will involve the formation of approximately 7 hectares of land reclamation, using dredged and excavated material. Works are expected to take 15 to 20 months (over one continuous delivery programme) to complete. Piling will be utilised in the construction of the main quay, heavy load area and shuttering for the land reclamation. Both vibratory and impact piling may be used during the works, however impact piling will only be utilised where design depths of the piles cannot be achieved through the use of vibratory piling. Approximately 500,000 cubic metres will be dredged around the main quay, and the approaches to it., It is expected that over 90% of the material dredged will be re-used as infill in the land reclamation. The remaining unsuitable material (up to 50,000 cubic metres) is to be deposited at sea. Dredging may be carried out on a 24-hour basis (Monday - Saturday) in order to minimise the duration of the dredge.

9.10 SHEPD – West Highland Region – Geophysical Surveys

Geophysical surveys in the West Highland Region. The Region includes 23 cables routes contained within 17 cable corridors, with a maximum total survey area of 517 km<sup>2</sup>. Surveys are expected to take 411 days with 274 days of that including weather downtime, transits and waiting for tides. Surveys are due to be complete by 15 June 2028.

9.11 Highland Council - Ferry Terminal Development - Uig, Isle of Skye

The Uig ferry terminal development includes the following components located below MHWS: widening of the pier approachway; widening and strengthening of the existing berthing structure; installation of new linkspan, lifting dolphins and bankseat; dredging and deposit of dredge materials at a new sea deposit site; sea deposit site creation within Uig Bay; extension of marshalling area by land reclamation (11,000 m<sup>2</sup>) and associated rock armouring; construction of three oil separators and extension of a

culvert pipe. The ferry terminal development will be carried out either as one continuous delivery programme or as a three phase project. In this case, phase one would consist of essential upgrades comprising all works below MHWS (including but not limited to widening of the approachway, re-fendering of the approachway, widening the berthing structure, installing a new wave wall and dredging with sea deposit of dredge material). Phase two would involve the land reclamation to accommodate the new marshalling area and fisherman's compound and phase three would involve terrestrial works above MHWS. If the works are to be carried out as one continuous programme, the expected time to complete the development will be 24 months and if the three phase programme is selected then 40 working months will be required, with 18 months for phase one, 18 months for phase two and the remaining 4 months for phase three. Both vibratory and impact piling may be used during the works. The simultaneous use of two or more piling rigs will be minimised but remains a possibility.

9.12 SHEPD - Argyll Region - Cable Survey - EPS/BS Licence

SHEPD Plc have requested a European Protected Species and Basking Shark Licence in order to carry out geophysical surveys in the Argyll Marine Region. The Region includes 24 cables routes contained within 19 cable corridors, with a maximum total survey area of 211km<sup>2</sup>. Surveys are expected to take 280 days with a 187 days of that including weather downtime, transits and waiting for tides. Surveys are due to be complete by 31 July 2028.

9.13 Outer Hebrides Marine Region Cable Route Survey – EPS/BS Licences

Geophysical surveys of 16 cable routes, within 13 cable corridors, located across the Outer Hebrides marine region, covering a maximum survey area of 260 square kilometres. The geophysical surveys will include the use of SBP, USBL positioning system and MBES. Up to three survey vessels (one large offshore, and two small nearshore) could be operating simultaneously in the region in respect of the surveys. Survey activities are expected to take approximately 173 days within an approximately 3 year period up to end of September 2028.

9.14 Pentland Floating Offshore Wind Farm

A floating offshore windfarm with an installed capacity of around 100 megawatts within the Pentland Firth, approximately 7.5km seaward of MHWS at Dounreay, Caithness. The windfarm will consist of up to 6 floating offshore wind turbine structures and associated floating substructures. Offshore construction activities are anticipated to commence in 2027. Project will take 14 months to complete and will be operational for a period of 25 years.

9.15 CMAL - Colonsay Ferry Terminal Development - Colonsay

Construction works to upgrade the Colonsay Ferry Terminal at Scalasaig, Colonsay, Inner Hebrides. The works consist of replacing existing rubber fenders along the roundhead of the pier and installing pile toe protection in the form of concrete mattresses.

## 9.16 Fish farms

9.16.1 There are a number of fish farms which were identified as having a likely significant effect on the Inner Hebrides and the Minches SAC. The table below summarises these projects.

**Table 4: Fish farms identified as having a likely significant effect on the Inner Hebrides and the Minches SAC designated site also affected by the Argyll and Bute Council proposal**

Site Name	Licensee	Licensed Equipment	Dates of Licence
Sconser Quarry, Isle of Skye	Marine Harvest (Scotland) Ltd	12 ring cages, 34 grid moorings, 1 feed barge, 3 boat moorings	13/05/2022 – 12/05/2047
Maclean's Nose	Mowi Scotland Limited	16 ring cages, 26 grid moorings, 1 feed barge, 2 rafts, 40 marked buoys	10/06/2021 – 09/06/2027
Stulaigh Island	Mowi Scotland Limited	14 ring cages, 26 grid moorings, 1 feed barge, 3 boat moorings	30/09/2019 – 29/08/2024
Culnacnoc, Portree	Organic Sea Harvest	12 ring cages, 26 grid moorings, 1 feed barge	24/06/2020 – 23/06/2026
Scorrybreck, Portree	Organic Sea Harvest	12 ring cages, 26 grid moorings, 1 feed barge	13/03/2020 – 12/03/2026
Isle of Scalpay, Isle of Skye	Mowi Scotland Limited (was Scalpay Multi-Trophic Aquaculture Limited)	12 ring cages, 22 grid moorings, 1 feed barge	17/01/2020 – 16/01/2026
Northeast Rum	MOWI Scotland Ltd	8 ring cages 30 grid moorings, 1 feed barge, 15 marked buoys	31/01/2024 – 06/03/2047

### **9.17 Assessment of in combination effects on the Inner Hebrides and the Minches SAC designated site**

There is potential for the proposal to have in-combination effects with the fish farms listed in Table 4. However, any effects from these are likely to be localised and comparatively small scale.

The various geophysical surveys could have temporal overlap with Argyll and Bute Council's proposal, however, due to the short, temporary nature of the survey activities it is expected that any potential temporal overlap will be minimal.

Whilst the harbour porpoise is an identified qualifying interest as regards the Flex Marine Power project, the pathway of effect identified is risk of collision. Therefore the potential for disturbance caused by vessel noise and movement, identified as potential pathways of effect for Argyll and Bute Council's proposal, is minimal.

Whilst there is some scope for temporal overlap with the ferry terminal projects, it is noted that most of these licences will have expired within the first half of Argyll and Bute Council's proposed timescales, thereby reducing the potential for ongoing temporal overlap. In addition, the effects of these projects are likely to be localised in nature, thus reducing the potential for spatial overlap.

Construction activities relating to the Pentland Floating Offshore Windfarm are not expected to commence until 2027, therefore temporal overlap with the Argyll and Bute Council proposal is not likely.

Vonin Scotland's licence will expire prior to the commencement of the Iona Ferry terminal proposal, therefore there will be no temporal overlap.

There is potential for in combination effects with the remaining projects. However, provided the projects are carried out in line with the conditions in their respective AAs, MD-LOT concludes that there will be no adverse effect on the site integrity of the Inner Hebrides and the Minches SAC from in combination effects,

## **10 MD-LOT Conclusion**

10.1 MD-LOT concludes that there will be no adverse effect on the site integrity of the Inner Hebrides and the Minches SAC from the Argyll and Bute Council proposal either in isolation or in combination with other projects.

## **SECTION 4: CONDITIONS**

## **11 Requirement for conditions**

11.1 No requirement for conditions.