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MARINE DIRECTORATE - LICENSING OPERATIONS TEAM'S ASSESSMENT OF THE PROJECT'S IMPLICATIONS FOR A DESIGNATED NATURE CONSERVATION MARINE PROTECTED AREA FEATURE.

APPLICATIONS 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

Name	**Assessor or Approver**	**Date**
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1 Introduction

1.1 This Nature Conservation Marine Protected Area ("NC MPA") assessment relates to the applications submitted by Argyll and Bute Council for marine licences under the Marine (Scotland) Act 2010 ("the 2010 Act") to undertake dredging and construct a breakwater at Iona Ferry Terminal, located within the Sea of Hebrides NC MPA ("the Works").

1.2 The assessment has been undertaken by Marine Directorate - Licensing Operations Team ("MD-LOT") and is required under Section 83 of the Marine (Scotland) Act 2010. MD-LOT, as the 'public authority' under the 2010 Act, has to be satisfied that there is no significant risk of the Works hindering the achievement of the conservation objectives of the protected features of the NC MPA or any ecological or geomorphological process on which the conservation of these features is dependant, before any consents can be granted.

1.3 A detailed NC MPA assessment has been undertaken and NatureScot, operating name of Scottish Natural Heritage, has been consulted.

2 NC MPA assessment conclusion

2.1 This MPA assessment concludes that there is no significant risk of the Works hindering the achievement of the conservation objectives of the protected features of the Sea of Hebrides NC MPA.

3 Details of proposed Works

Capital Dredging and Deposit of dredged substances or objects

3.1 The approximate dredge area is 2,017 square metres ("m^2"), 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 ("C.D."). 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

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3.2 The breakwater will be located approximately 70m 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 185m crest length and 4m width. The maximum crest level will be 7.71m 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 12,000m^2 of tear resistant geotextile membrane and the bedding placed on top of this layer will comprise of a 500 millimetre ("mm") deep layer of 300-1000 kilogram ("kg") graded rock. The core will be constructed of 1000-3000kg graded rock and the outer layer of 3000-6000kg graded rock. A 3m wide and 2.5m high toe will be constructed on each face of 3000-6000kg 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 batter will be constructed of 1000-3000kg 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 on the south side of the proposed breakwater.

3.5 Pre-cast and in-situ concrete (26,706kg) will be used along with steel / iron reinforcement (1,080kg) to construct an aid to navigation light beacon installation on the breakwater.

3.6 The Works 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 tank 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 90m x 30m 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.

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3.9 The design life of the breakwater structure is estimated to be approximately 120 years.

4 Consultation

4.1 NatureScot were consulted on the marine licence applications on 08 November 2023 and provided a response on 24 January 2024.

5 Main issues raised during consultation

5.1 NatureScot advised that the proposal is capable of affecting, other than insignificantly, the Marine Geomorphology of the Scottish Shelf Seabed (Inner Hebrides Carbonate Production Area) protected feature of Sea of Hebrides NC MPA. As such, MD-LOT concluded that an MPA assessment is required.

SECTION 2: INFORMATION ON THE NC MPA SITE

6 Background information and protected features of the relevant NC MPA 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 protected features for the site are listed as are the conservation objectives.

Table 1 Names of NC MPA site affected and link to SiteLink

Sea of Hebrides NC MPA
https://sitelink.nature.scot/site/10474

Table 2 Protected features

Sea of Hebrides NC MPA
Basking shark (*Cetorhinus maximus*)
Fronts
Marine Geomorphology of the Scottish Shelf Seabed
Minke whale (*Balaenoptera acutorostrata*)

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Table 3 Conservation objectives

Sea of Hebrides NC MPA

(1) The conservation objectives of the Sea of the Hebrides MPA are that the protected features-
(a) so far as already in favourable condition, remain in such condition,
(b) so far as not already in favourable condition, be brought into such condition, and remain in
such condition.

(2) In paragraph (1) "favourable condition", with respect to a mobile species of marine fauna, means that-
(a) the species is conserved or, where relevant, recovered to include the continued access by the species to resources provided by the Sea of the Hebrides MPA for, but not restricted to, feeding, courtship, spawning or use as nursery grounds,
(b) the extent and distribution of any supporting feature upon which the species is dependent is conserved or, where relevant, recovered, and
(c) the structure and function of any supporting feature, including any associated processes supporting the species within the Sea of the Hebrides MPA, is such as to ensure that the protected feature is in a condition which is healthy and not deteriorating.

(3) In paragraph (1) "favourable condition", with respect to a large scale feature, means that-
(a) the extent, distribution and structure of that feature is maintained,
(b) the function of that feature is maintained so as to ensure that it continues to support its characteristic biological communities and their use of the site including for, but not restricted to, feeding, courtship, spawning or use as nursery grounds, and
(c) the processes supporting that feature are maintained.

(4) In paragraph (3)(b) the reference to the characteristic biological communities of a large scale feature includes a reference to the diversity of any species associated with the large scale feature.

(5) In paragraph (1) "favourable condition", with respect to a feature of geomorphological interest, means that-
(a) its extent, component elements and integrity are maintained,
(b) its structure and functioning are unimpaired, and
(c) its surface remains sufficiently unobscured for the purposes of determining whether the criteria in paragraphs (a) and (b) are satisfied.

(6) For the purpose of determining whether a feature of geomorphological interest is sufficiently unobscured under paragraph (4)(c), any obscuring of that feature entirely by natural processes is to be disregarded.

(7) For the purpose of determining whether a protected feature is in favourable condition within the meaning of paragraphs (2), (3) or (5) any alteration to that feature brought about entirely by natural processes is to be disregarded.

SECTION 3: ASSESSMENT OF THE POTENTIAL TO HAVE A SIGNIFICANT RISK OF HINDERING THE ACHIEVEMENT OF THE CONSERVATION OBJECTIVES OF THE NC MPA.

6.2 *Is the proposal capable of affecting (other than insignificantly) the protected features of the NC MPA?*

In its response, NatureScot advised that the Works are capable of affecting, other than insignificantly, the Marine Geomorphology of the Scottish Shelf Seabed (Inner Hebrides Carbonate Production Area) protected feature of the Sea of Hebrides NC MPA, through the removal of seagrass.

NatureScot's response also stated that the Works are not capable, other than insignificantly, of affecting the minke whale and basking shark features of the NC MPA. In addition, no concerns in relation to the Fronts protected feature were raised by NatureScot.

6.3 *Is there a significant risk of hindering the achievement of the NC MPA's conservation objectives?*

In its response dated 24 January 2024, NatureScot assessed that the proposal will not result in a significant risk of hindering the achievement of the conservation objectives of the NC MPA.

MD-LOT agrees with this advice and has used it to undertake a NC MPA assessment for the site.

7 Assessment of the implications for the site in view of the site's conservation objectives.

7.1 NatureScot outlined that the benthic geodiversity feature of the Sea of Hebrides NC MPA affected by the Works is the Marine Geomorphology of the Scottish Shelf Seabed (Inner Hebrides Carbonate Production Area ("IHCPA")). This feature is characterised by sands and gravels with very high carbonate content and biogenic component habitats. Seagrass beds make up one of the component biogenic habitats that underpin key functions of the feature, which include carbon sequestration, nutrient cycling, sediment supply, sediment stabilisation and the provision of habitat for other species.

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7.2 NatureScot advised that seagrass beds will be significantly impacted by the Works. Construction of the breakwater was identified as impacting the feature directly as a result of permanent loss of the habitat from the footprint of the physical infrastructure.

7.3 In addition, NatureScot identified ongoing dredging as likely to lead to an area of seagrass bed that is unlikely to recover due to the slow recovery speed. Increased siltation from dredging could potentially significantly disturb and degrade seagrass in the vicinity of the dredge area as well. Trampling and surface abrasion from the jack up barge and anchoring of vessels during construction was also deemed by NatureScot to be capable of causing disturbance to the seagrass beds around the breakwater footprint.

7.4 Fragmentation of the seagrass bed as a result of the habitat loss and disturbance were considered by NatureScot as having the potential to compound the impacts further, through less species diversity, sediment mobilisation and reduced recoverability. Overall, NatureScot estimated that 0.9 hectares of seagrass bed will be lost, and consequently, the Works are capable of affecting, other than insignificantly, the IHCPA feature.

7.5 NatureScot also noted that changes to water flow as a result of the Works were expected to have negligible or positive effects in terms of protection from storm events.

7.6 NatureScot considered that, while any habitat lost will be irrecoverable, the disturbed areas outwith the footprint of the Works would have the potential to recover. Further, NatureScot identified the Marine Geomorphology of the Scottish Shelf Seabed IHCPA feature of the NC MPA was designated primarily for its carbonate rich substrates and their importance for the production and supply of shell-rich sands to beaches and machair. Its response indicated that seagrass only represents one aspect of the IHCPA, and when considered as a whole, relative to the biogenic habitats that contain and produce carbonate, the seagrass component was of secondary importance, as its function is to lock in carbonate rich sediments rather than supply them.

7.7 On that basis, NatureScot concluded that, although the seagrass loss and disturbance was significant, it would not undermine the extent of the geodiversity feature as whole, and there is no significant risk of hindering the achievement of the conservation objectives.

8 MD-LOT conclusion

8.1 MD-LOT concludes the Works do not have the potential to have a significant risk of hindering the achievement of the conservation objectives of the NC MPA.

SECTION 4: CONDITIONS

9 No requirement for conditions.