

Marine Scotland – Licensing Operations Team
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

18 February 2022

Your ref: 00009582

FAO: Jack Versiani Holt

Dear Jack

**Staffin Community Trust (Affric Ltd) - Harbour Development - Staffin Slipway, Isle of Skye
Marine (Scotland) Act 2010**

Thank you for your consultation on the above proposal.

Summary

- The proposed development lies within the Inner Hebrides and the Minches Special Area of Conservation (SAC) which is of international importance for harbour porpoise but our advice is that they will not be significantly affected by these proposals.
- The proposed development lies within Trotternish National Scenic Area (NSA) which is of national importance for its landscape. In our view the proposals will not have an adverse effect on the integrity of Trotternish NSA or the objectives of the designation.
- The development is immediately adjacent to An Corran Geological Conservation Review (GCR) site and Skye Nature Conservation Order (NCO) area which are of national importance for vertebrate fossils and sedimentary geology. We do not have sufficient information to advise whether these sites could be damaged by movement of rockfill during construction of the breakwater.
- This proposal will not result in significant impacts on the national status of any Priority Marine Features (PMF).

Background

An Environmental Impact Assessment (EIA) Report has been provided with the application, covering both the marine and terrestrial aspects of the development. There are significant overlaps and interactions between the regulatory processes for Marine Licensing and Planning. We have sought to provide you with sufficient information to determine this application, including aspects where it is currently unclear whether they will be regulated by Planning or Marine Licencing, particularly the geology of the intertidal and the landscape effects of the breakwater. Where our Marine Licencing

advice is the same as our Planning advice we have included a summary in this response but refer you to our Planning response (copy attached) for the detail.

We provided pre-application advice in April 2021. The proposals were not subject to formal EIA scoping. There have been notable changes to the location and design of the breakwater since then. The current proposal is to dismantle the existing breakwater and re-use the rock, along with locally quarried rock, to create a larger breakwater. A second slipway and pontoons are also proposed.

Appraisal of the impacts of the proposal and advice

1. Inner Hebrides and the Minches Special Area of Conservation

All parts of the development which lie below Mean Low Water Springs (MLWS) are within Inner Hebrides and the Minches Special Area of Conservation (SAC) designated for its use by harbour porpoise.

The site's status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") apply or, for reserved matters, The Conservation of Habitats and Species Regulations 2017. Consequently, Marine Scotland is required to consider the effect of the proposal on the SAC before it can be consented (commonly known as Habitats Regulations Appraisal). The NatureScot website has a summary of the legislative requirements (<https://www.NatureScot.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/legal-framework/habitats-directive-and-habitats-regulations>).

Our advice is that it is unlikely that this proposal will have a significant effect on harbour porpoise either directly or indirectly. An appropriate assessment is therefore not required. This is because *'no construction activities known to generate significant noise levels, such as piling, dredging, rock breaking or underwater drilling, will take place in the marine environment during the construction of the SCH'* (Section 10.5 EIA Report). In addition, this location is unlikely to be an important feeding area for Harbour porpoise. For further details on the sensitivity of harbour porpoise see the Conservation and Management Advice which is available via Sitelink - <https://sitelink.nature.scot/site/10508>

We support the 'good practice' measures proposed in section 17.6 of the EIA Report to avoid fuel spills and other marine pollution which will protect harbour porpoise and other marine mammals.

2. Seal SACs

A number of SACs designated for common and grey seals are referenced in the EIA report. The closest is the Ascrib, Isay and Dunvegan SAC at 29km. Legislative requirements are as detailed above. **Our advice is that it is unlikely that the proposal will have a significant effect on any qualifying interests** either directly or indirectly. An appropriate assessment is therefore not required. Assuming standard good practice is implemented during construction then the most likely effects on seals would be minor displacement of small numbers of animals from the immediate vicinity while construction takes place.

3. Shiant Isles Special Protection Area (SPA)

The Shiant Isles SPA is ~25km away from the proposed development. Legislative requirements are as detailed above. **Our advice is that it is unlikely that this proposal will have a significant effect on the seabirds that are the SPA interest**, either directly or indirectly. An appropriate assessment is therefore not required.

4. Landscape

The proposed development lies within Trotternish National Scenic Area (NSA) which is of national importance for its landscape. Our assessment of the likely effects on the NSA included consideration of landscape character, visual impacts and effects on the Special Qualities. **We conclude that the proposals will not have an adverse effect on the integrity of Trotternish NSA** or the objectives of the designation. We refer you to our planning response for our full appraisal.

5. Geology

The proposals are directly adjacent to An Corran Geological Conservation Review (GCR) site and the Skye Nature Conservation Order (NCO) area. These are of national and international importance for the dinosaur footprints; vertebrate fossils and the Jurassic sedimentary rock strata. Dinosaur remains (and other vertebrate fossils) from the Middle Jurassic are rare worldwide. The outcrops at An Corran also preserve a section of the upper Duntulm Formation which is missing from the type section at Lon Ostain on the northern coastline of Trotternish. The site interests are well described in the EIA Report.

One potential impact that has not been adequately assessed in the EIA is for lighter fractions of the rockfill material from the breakwater to be transported by storm waves into the GCR site during construction. Any material deposited in this way is less likely than sand to naturally wash away later. Because gravel is more difficult to dig through or remove, and because this material would be in addition to natural sand deposition, such deposition of rockfill onto the foreshore outcrops could hinder scientific study. **There are insufficient details on the construction process and working methods to allow us to assess whether a significant adverse effect is likely and whether such risks can be adequately mitigated.** Further details are provided in our annex to this letter. We recommend submission of a brief assessment (EIA addendum). It is for you to decide whether this should be provided prior to determination or as part of conditions.

We have also considered the likelihood of sand deposition within the GCR site once the breakwater is completed. The EIA appears to underestimate potential natural sand deposition resulting from the new breakwater, due to limitations in the wave modelling, the analysis of littoral current modelling, and assertions about sediment availability. However, by itself, the degree of potential sand deposition is unlikely to amount to a significant adverse impact on the GCR site, because the sand would not prevent scientific access and because the area potentially affected is unlikely to include the area with the dinosaur footprints.

As the EIA Report acknowledges, the middle Jurassic-age sedimentary rock layers extend east beyond the GCR/NCO sites, including within the area occupied by the proposed development. We welcome the mitigation proposed in Section 12.6.1.1 of the EIA report and **recommend that a specialist palaeontologist should have a geological watching brief during construction.** We refer you to our planning response for our full appraisal.

6. Priority Marine Features

Five diver transect surveys were carried out in March 2021 as detailed in Appendix H.1 - *Benthic Ecology Habitat Assessment Report*. These only sampled part of the development site. The relatively poor fit between transect location and proposed works (figure 4) can be explained by the change in location of the breakwater after the dive survey had been completed. To compensate, the dive surveys were supplemented by an aerial drone survey of the whole site. We consider that the two survey types combined are sufficient to make an assessment in this case.

The majority of the subtidal area has been mapped as the Priority Marine Features (PMF) 'Kelp Beds' or 'Kelp and Seaweed Communities on Sub-littoral sediment' (Figures 5 & 6 of report). Section 3.3.1 states that '*Kelp and seaweed communities were observed across the survey area on both soft and hard substrates based on both seabed video footage and UAV imagery*'.

These biotopes are sensitive to substratum loss, changes in water flow or wave exposure. As discussed in section 8.5, and summarised in table 8.9.1, of the main EIA Report there will be direct loss of these biotopes within the construction footprint of the breakwater and slipway. There may be additional loss within the harbour area due to changes in wave exposure. Partial recolonization of the deeper and more exposed sections of the rock armour is possible over time. All long term adverse impacts will be localised to the immediate vicinity of the harbour.

Descriptions of the PMFs, including their distribution, status and natural heritage importance are available in NatureScot Commissioned Report 406: Descriptions of Scottish Priority Marine Features (PMFs) - <https://www.nature.scot/doc/naturescot-commissioned-report-406-descriptions-scottish-priority-marine-features-pmfs> . Scotland holds a significant proportion of the UK records of kelp PMFs and therefore the habitat is considered to be nationally important. Records of the habitat are widespread along this stretch of coast and are widespread along the west coast of Scotland. Therefore while there will be an unavoidable impact on the PMFs, given the widespread nature of the habitat in the local area and at a regional scale, we do not consider any increased impact upon the habitat to be significant. We conclude that any increased impact will not result in a significant impact on the national status of the habitat.

Please let me know if you require any further advice or clarification. The advice in this letter is provided by NatureScot, the operating name of Scottish Natural Heritage.

Yours sincerely,

Alex Turner
Area Officer, Skye and Lochalsh

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Annex – Detailed coastal geomorphology advice

Proposal

The existing rock-armour breakwater on the east side of the slipway at Staffin harbour would be removed. Using its material and locally imported material, a new larger breakwater would be constructed, curving from the intertidal rock headland into Ob nan Ron. Near its seaward end, this breakwater would be ca.40m wide and ca.9 – 10m high from the sea bed.

The marine licence application indicates placement of a rockfill core (21K m³ of cobbles (<26cm) and 1.65 Km³ of sandy gravel), covered with two courses of rock armour (23K m³ of boulders (>26cm)). There do not appear to any details on construction working methods.

Modelling of coastal processes is contained in Appendix Q1 of the EIA Report.

Assessment

The foreshore outcrops that form the geological interest are sensitive to being obscured by sediment deposition, depending on the sediment type, thickness and duration.

1. The new breakwater is obviously designed to reduce marine energy. This could encourage deposition of 'beach' sand in the southern third of the GCR site, exceeding deposition that currently occurs with the existing breakwater. Based on the process modelling, the EIA concludes that these effects will be Negligible or Low in magnitude, causing Minor impact at most (12.5.2.1, 17.5.2.5).

Our advice is that **the magnitude of this natural sediment deposition within the GCR site could be higher:**

- The modelling clearly predicts significantly reduced littoral currents in the lee of the new breakwater for large tides (Figs 13, 16 and 19 in Appendix Q.1). The reduction is up to ca.1m/s (for the storm from 60°N), which is close to half the range of modelled current speeds in the Bay. The text discusses changes to the *patterns* of littoral currents but not to their *strength* (4.2 to 4.5 in Appendix Q.1).
- The modelling only presents wave heights for the existing situation. Unlike for littoral currents, it doesn't predict *changes* to wave heights due to the proposed breakwater. Section 4.1 states that both wave energies and littoral currents contribute to the existing paucity of sand on most of the foreshore.
- The argument that there is too little sediment available in Staffin Bay (EIA 17.5.2.5) doesn't appear to be based on any analysis. The build-up of sand in the lee of the existing breakwater suggests that lack of shelter from waves may be as important a factor as sediment availability.

However, it seems likely that any build-up of sand on outcrops could be transient and would not be thick. It is **unlikely that this would amount to a significant adverse impact** on the geological interest, for two reasons *in combination*:

- While important, the part of the GCR site potentially affected is not the most sensitive part of the site. Dinosaur footprints and vertebrate fossils are not currently known from this part of the site (but note that this assessment may change if new finds occur during the construction of the new facility, as detailed in our planning response).
- In a worst case scenario it should be possible to carefully dig through or remove a thin layer of sand to study the outcrops, so the sand would hinder but not prevent scientific study.

2. There seems to be potential, before the placed rockfill material is armoured, for its gravel and sand fractions (at least) to be transported by storm waves into the southern third of the GCR site. Although the period of rockfill being exposed to waves may be short, in the shelter of the new breakwater any material re-deposited in this way is less likely than sand to naturally wash away later. Because gravel is more difficult to dig through or remove, and because this material would likely be in addition to natural sand deposition, such **deposition of rockfill onto the foreshore outcrops could hinder scientific access and study.**

This aspect **should have been considered in the EIA** as a potential impact. Appropriate consideration could include some / all of the following:

- severity of storm(s) (in terms of wave height etc) needed to transport different fractions of rockfill into the GCR site – the process modelling would inform this;
- maximum period during which some rockfill might be exposed (gross construction phasing), and likelihood of such storm(s) occurring during that period;
- maximum volume of rockfill that might be exposed at any one time (detailed construction phasing);
- mitigation measures that could be used to minimise the extent of exposed rockfill and the duration of exposure;
- if potential remains for rockfill to be deposited within the GCR site, the difficulty of artificially removing it without potentially damaging foreshore outcrops.

Conclusion

This case would have benefited from EIA scoping with regard to coastal process modelling and analysis.

Without further details of the construction working methods, phasing of the construction, analysis of the modelling and consideration of mitigation we are unable to advise whether a significant adverse impact on the GCR site is likely to result. It is for Marine Scotland to determine how to address this aspect within the Marine Licencing process. We would be happy to discuss this further with you and / or the developer's consultants.