



# **Lochmaddy Ferry Terminal Upgrade**

## **Marine Construction and Dredge Licences Extension Request**



**Comhairle nan Eilean Siar**

**Date: 12/10/2021**



## Document Control

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## 1 Introduction

To facilitate completion of the construction and development of the Lochmaddy Ferry Terminal Upgrade Works, extensions to the Construction (07000/19/0) and Dredge and Disposal (07001/19/0) Marine Licences, valid from 1<sup>st</sup> January 2020 until 31<sup>st</sup> December 2021 are being sought on behalf of Comhairle nan Eilean Siar (CnES).

The two Marine Licence applications were supported by an Environmental Impact Assessment Report (EIAR) (Affric Limited, 2019a) and a Construction Environmental Management Document (CEMD) (Affric Limited, 2019b) which included a Construction Environmental Management Plan (CEMP) detailing construction works and associated mitigation measures. The dredge and disposal licence application was also supported by a Best Practicable Option (BPEO) Assessment Report (Affric, 2019c).

This document lays out the need for the extension to the licences and assesses the potential for significant adverse effects not previously assessed within the original EIAR (Affric, 2019a).

## 2 Need for the Extension

Construction works led by Keatings were suspended during the outbreak of COVID-19 as a result of the Scottish Government implementing a national lockdown. Construction works restarted on the 15<sup>th</sup> of June 2020; however, they were suspended within a few weeks by the contractor due to financial difficulties. The contract was terminated on the 4<sup>th</sup> November 2020. Some interim works have been completed in preparation for a new contractor taking over the main contract and restarting works next year.

An extension of three years on both licences is being requested. The duration of the project is not anticipated to take any longer than first expected however, an extension of 3 years is being requested to account for any potential delays which may arise. This could include further delays due to the pandemic, material deliveries, weather, and reliance on ferries.

## 3 Works Status

Works on the east car park which involved a very small element of rock armour being placed below Mean High Water Springs (MHWS) under licence 07000/19/0 are now complete.

Table 1 lists the construction tasks as detailed in the EIAR and Section 6 of the CEMP and their current status.

**Table 1: Construction Works Status**

Task	Status to date	Comments
Mobilisation	Will recommence	Compound area established and East car park extension complete.
Dredging	Not started	
Caisson Construction in Dry Dock	Not started	
Excavate Hillside and Infill	Paused	Ground-breaking commenced but infill not started.
Marshalling/Parking Areas	Not started	
Services to Marshalling Area	Ongoing	Local contractor currently carrying out initial installation of services.
Install Temporary Fenders	Not started	

Task	Status to date	Comments
Provision of Temporary Access Scaffolding	Not started	
Cut Deck Edge	Not started	
Existing Pier Concrete Pours	Not started	
Protective System to Existing Steel Piles	Not started	
Fendering System to Existing Pier	Not started	
Caisson Foundation	Not started	
Cut Down Roundhead	Not started	
Transport Caisson to Site	Not started	
Fit Caisson Fenders	Not started	
Caisson Installation and Backfilling	Not started	
Infill Slab (roundhead to caisson)	Not started	
Caisson Slab and Services	Not started	
Remove Temporary Fenders	Not started	
Demobilisation	Will follow completion of the works.	

## 4 Environmental Considerations

The environmental sensitivities originally identified within the EIAR are further considered in this section. As there is no change to the planned construction works, no effects not previously considered are likely, and the focus will therefore be on the topics considered within the EIAR (Affric Limited, 2019a).

### 4.1 Air Quality: Dust

No new receptors sensitive to air quality issues have been identified. There have been no changes made to the proposed methods of construction and therefore, no new impacts are expected. The mitigation outlined in the EIAR Schedule of Mitigation and CEMD Section 14: Dust Management Plan is still applicable.

### 4.2 Archaeology and Cultural Heritage

No new discoveries have been made and no new information has been provided which would change the understanding of the baseline information initially detailed in the EIAR, therefore no new impacts are expected. The mitigation outlined in the EIAR Schedule of Mitigation and CEMD, specifically the Section 9: Protocol for Archaeological Discovery will still apply.

### 4.3 Natural Resource Usage and Waste

There have been no changes made to the proposed methods of construction, or materials required and waste likely to arise therefore no new impacts are expected. The mitigation proposed in the EIAR Schedule of Mitigation and CEMD Section 8: Site Waste Management Plan to align to the waste hierarchy is still appropriate.

### 4.4 Marine Mammals and Basking Shark

On the 3<sup>rd</sup> December 2020, Scottish Ministers announced the designation of four further Nature Conservation Marine Protected Areas (NCMPA) and twelve Special Protection Areas

(SPA). Two of these with marine mammal and basking shark qualifying features are within close proximity to the Lochmaddy Harbour Upgrade development and the associated dredge disposal works, see Table 1.

Site	Direction and Distance by Sea	Marine Mammal and Basking Shark Qualifying Feature(s)
Sea of the Hebrides NCMPA	3.7km East	<ul style="list-style-type: none"> <li>Minke whale (<i>Balaenoptera acutorostrata</i>), Basking Shark (<i>Cetorhinus maximus</i>)</li> </ul>
North-East Lewis NCMPA	77km Northeast	<ul style="list-style-type: none"> <li>Risso's dolphin (<i>Grampus griseus</i>)</li> </ul>

The Sea of the Hebrides, now an NCMPA, was identified within the EIAR as a proposed MPA (pMPA), designated for minke whale and basking shark and of national value. At the time, the site was not afforded any legal protection however, it overlapped substantially with the Inner Hebrides and Minches SAC, designated for harbour porpoise and of higher sensitivity at international value. The Sea of the Hebrides pMPA was not specifically assessed but an assessment for the Inner Hebrides and Minches SAC was carried out. Mitigation measures identified during this assessment were deemed to be effective for minke whales and basking sharks as the assessment was carried out for a receptor of higher sensitivity. The North-East Lewis pMPA was also considered, however not specifically assessed, as again, measures implemented to protect the designated site and feature of the Inner Hebrides and Minches, assessed at international value, were also deemed to be effective for Risso's dolphin.

Individual species within the vicinity of the proposed development were assessed. These included harbour porpoise, white-beaked dolphin, Risso's dolphin, minke whale, killer whale, bottlenose dolphin, short-beaked common dolphin, Atlantic white-sided dolphin and both common and grey seals. There has been no change to the baseline information regarding the range of species and the most likely species to be encountered within the zone of influence associated with the Lochmaddy Ferry Terminal Upgrade remains to be common seals and harbour porpoise.

As there have been no changes made to the proposed methods of construction, no new impacts are anticipated and therefore mitigation detailed within the EIAR and Section 11: Habitats and Species Protection Plans, of the CEMD will still be appropriate. This includes obtaining an EPS licence and adhering to piling and dredge disposal protocols.

## 4.5 Otters

Otter surveys were carried out prior to works commencing. The occasional resting place [REDACTED] was found to be in use. An EPS licence was sought, and granted, in order to carry out the works [REDACTED]. The [REDACTED] works were complete in line with the licence.

There has been no change to the baseline regarding otter. [REDACTED] Pre-construction checks will continue to be carried out prior to each new task commencing and additional EPS licences will be sought if required along with the implementation of other mitigation measures

as detailed in the EIAR Schedule of Mitigation and Section 11: Habitats and Species Protection Plans of the CEMD.

#### **4.6 Noise (In-air)**

There have been no changes made to the proposed methods of construction and therefore no change to the predicted noise levels detailed in Appendix J.1 of Volume 3 of the EIAR (Affric Limited, 2019a). It should be noted that some noisy activities (including parts of Task 6 Marshalling Area/Parking Area (Earthworks/Rock Armour) which was predicted to have significant adverse effects on houses in the ferry terminal area despite mitigation) have been undertaken. Good dialogue with homeowners and the local community has ensured no noise complaints have been received. The mitigation outlined in the EIAR Schedule of Mitigation and Section 12: In-Air Acoustics of the CEMD has proved effective and will continue to be implemented for the remaining works.

#### **4.7 Noise (Underwater)**

There have been no changes made to the design with the same sizes of piles proposed. The same methods of installation are planned and therefore no increase in predicted noise levels are expected. The mitigation outlined in the EIAR Schedule of Mitigation will still apply in that it is preferred that vibro hammers will be utilised to drive piles to refusal prior to impact piling.

#### **4.8 Traffic, Access, and Navigation**

There have been no changes made to the proposed methods of construction and therefore no new impacts are expected. During initial enabling works, Construction Contractors Traffic and Pedestrian Access Plans have been implemented and have worked well to ensure access to the marshalling area was maintained. Good dialogue with the local community has also been undertaken ensuring no complaints regarding traffic, access and navigation have been received. The mitigation outlined in the EIAR Schedule of Mitigation and Section 15: Traffic, Access, and Navigation Management Plan of the CEMD has proved effective and will continue to be implemented for the remaining works.

#### **4.9 Water Quality and Pollution Prevention**

Pre-dredge sampling was carried out on the 5<sup>th</sup> April 2018 in line with the Pre-disposal Sampling Guidance Version 2 (Marine Scotland, 2017) as required. The Marine Scotland guidance requires, as a minimum, three sample stations in relation to the proposed volume of the dredge (<25,000m<sup>3</sup>). As the proposed dredge depth will be more than 1m, core samples were required at each of the sample stations. Eight vibrocore sample stations were completed across the three dredge areas; the berthing area, manoeuvring area and pocket for caisson foundations.

Samples showed results exceeding Action Level (AL) 1 but below AL2 as prescribed by Marine Scotland for metals and organotins. Copper was found to exceed AL1 in vibrocore samples taken at VB3 within the caisson dredge pocket, see Figure 1. Concentrations of mercury (Hg) within 0-0.5m depth in sample VB2\_1 exceeded AL1 with 31mg/kg (dry weight). Nickel (Ni) also exceeded AL1 in all three samples from VB\_1 and VB2\_1 at depths of 2.3-2.85m. No other trace metals or organotins exceeded prescribed ALs. No vibrocore samples contained trace metals or organotins exceeding AL2.

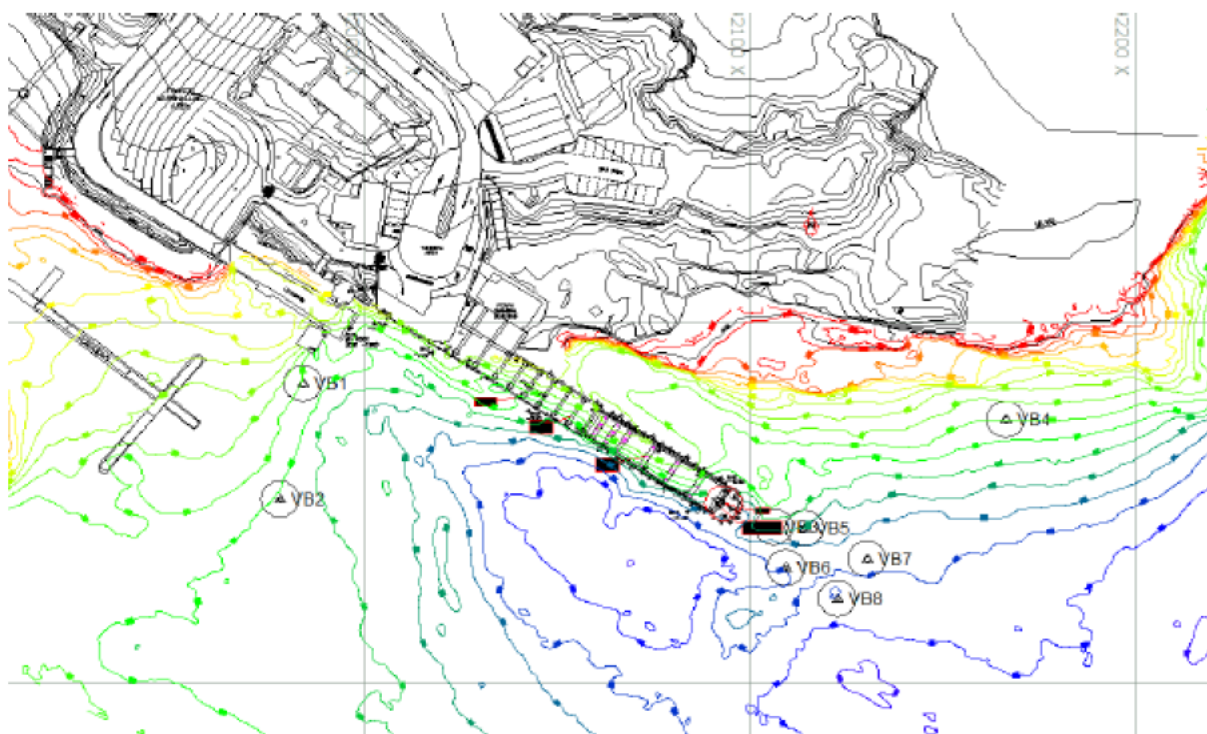


Figure 1: Dredge vibrocore sample locations

Cores identified with Ni exceeding AL1 were located adjacent to the pier and linkspan where sacrificial anodes have been installed on the marine infrastructure. It is likely elevated levels are a result of the anodes in close proximity. No increased levels of Ni were found in the other dredge areas.

A range of Polyaromatic Hydrocarbons (PAHs) were identified to exceed AL1 across all dredge sample locations. When results are combined as dry weight averages across the dredge area, 4 PAHs have exceedances above AL1. The PAHs identified within the dredge area included Diben(ah)anthracence, Fluoranthene, Perylene and Pyrene, all present in the chemical composition of coal tar found in old wooden marine vessels and from incomplete combustion of fossil fuels which corresponds with the history of the harbour and the founding of the fishing village of Lochmaddy in 1802 (Undiscovered Scotland, 2019).

Only one sample, sample VB2\_1 located in the berth dredge area contained Total Hydro Carbon (THC) within 0.5m of sediment exceeding AL1 by only 7%. All other samples were well below the AL1's prescribed by Marine Scotland. The average THC concentrations across all three dredge sites were all found to be below AL1.

All PAHs which have PEL assigned were at least 85% below the PEL and therefore no effects were predicted on the marine life from the presence of the aforementioned PAHs.

Following on from previous sampling, we have consulted with the local Harbour Master, and it is understood there have been no pollution incidents reaching the sea from the 5<sup>th</sup> April 2018 to date. One incident was recorded which involved a burst hydraulic pipe on the linkspan, but no seawater pollution was reported.



It is recognised that the previous sampling was carried out more than 3 years ago, there is however, no evidence of pollution incidents hence the existing BPEO (Affric Limited, 2019c) is still appropriate. No further sampling is proposed to inform the extension of the dredge licence.

## 5 Conclusion

An extension of three years is being sought for the construction and dredge licences for the Lochmaddy Ferry Terminal Upgrade. The works were not being completed in the original timeframe due to the COVID-19 pandemic, and the termination of the construction contract resulted in the retendering process of the project causing a 24-month delay. A review of the remaining works, baseline information and potential effects has been carried out. As the design and construction techniques have not changed, no new effects have been identified. As per the EIAR (Affric Limited, 2019a), taking into account mitigation, there is only one significant adverse effect associated with construction. That being the effect of construction noise from Task 6: Marshalling Area/Parking Area (Earthworks/Rock Armour) on the houses within the ferry terminal area. The mitigation identified within the CEMD (Affric Limited, 2019b) is still applicable and experience from the initial works has shown it to be effective.

Only beneficial significant effects are identified for the operational phase and, as the design hasn't changed this will remain the case.

## 6 References

- Affric Limited, 2019a. Lochmaddy Ferry Terminal Upgrade Environmental Impact Assessment Report.
- Affric Limited, 2019b. Lochmaddy Ferry Terminal Upgrade Construction Environmental Management Document.
- Affric Limited, 2019c. Lochmaddy Ferry Terminal Upgrade Capital Dredge Best Practicable Environmental Option Report.
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- NatureScot (2021). SiteLink website. [SiteLink \(nature.scot\)](https://nature.scot). Accessed: 25/09/2021.

## 7 Glossary

Acronym	Definition
BPEO	Best Practicable Environmental Option
CEMD	Construction Environmental Management Document
CEMP	Construction Environmental Management Plan
CnES	Comhairle nan Eilean Siar
EIAR	Environmental Impact Assessment Report
EPS	European Protected Species
km	kilometre
MHWS	Mean High Water Springs
NCMPA	Nature Conservation Marine Protected Area
pMPA	Proposed Marine Protected Area
SPA	Special Protection Area