

BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO):
MAINTENANCE DREDGING OF PORT OF NESS HARBOUR



1.0 Background

Port of Ness (Scottish Gaelic: Port Nis) is a village on the Isle of Lewis in the community of Ness, in the Outer Hebrides, Scotland. Port of Ness is within the parish of Barvas and the Harbour (Port of Ness) is situated at the end of the A857, which runs from Stornoway.

The harbour was constructed in the early 19th century. An enlargement was built in 1893, with a breakwater added the following year. The Port was the lifeblood of Ness, whose people's skill at boat handling is legendary. Its concrete remodelling by D. & T. Stevenson in the early 1890s included the (now partially collapsed) breakwater.

2.0 Dredging

Since the collapse of the outer breakwater, the harbour has been susceptible to continued progressive natural infilling from two sources:

- a) River-borne silts and muds; and
- b) Sea-borne sands

Port of Ness Harbour Ltd (Registered Scottish Charity) has been maintaining the harbour through regular dredging over the years to allow the harbour to remain functional.

3.0 Options

Port of Ness Harbour Ltd are actively engaging with the community landlord (Urras Oighreachd Ghabhsainn), the local authority (Comhairle Nan Eilean Siar) and the Crown Estate to prepare funding applications to look to reinstate the outer breakwater which is anticipated will reduce the level of infilling currently being experienced.

Significant investment is required in order to reinstate and improve the current port infrastructure and this will take some time to implement. Port of Ness Harbour Ltd are in the process of updating the business plan with collaboration from our local partner agencies.

In the short term, the continued infilling of the harbour requires to be addressed and options with regards to the disposal of the dredged material are outlined as follows:

3.1 Landfill

The most common use of dredged material within landfill sites is as capping or restoration material. Material would need to be brought ashore within the existing harbour and dewatered before being transported to trucks and taken to the landfill site by road. There are no suitable sites in the immediate vicinity of the harbour that could cope with a large quantity of material on an annual basis.

Dredged material is relatively inert, so disposal to landfill is not usually necessary or recommended unless dredged material is significantly contaminated, which it is not in this case (Please refer to chemical analysis already undertaken). Prior to landfill, dredged material would have to be dried in lagoons before being

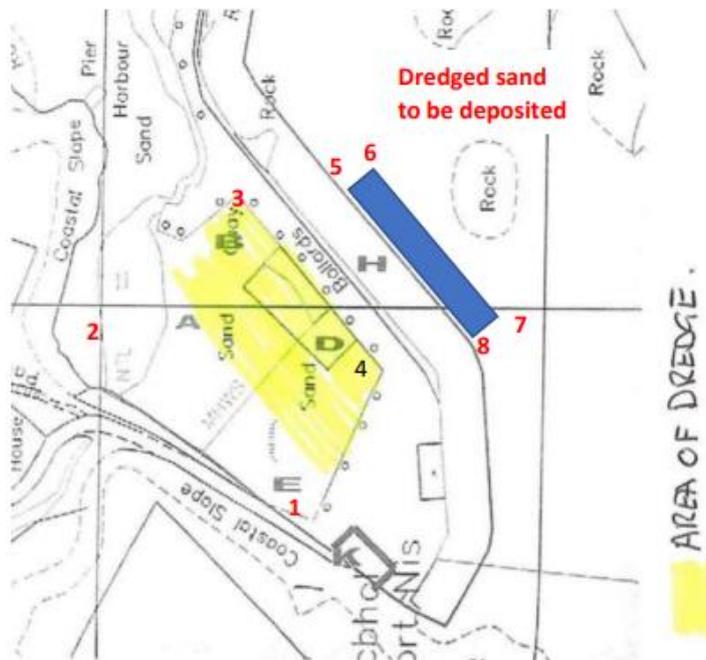
transported by road to a distant site. Suitable land for drying lagoons is not available within the harbour. Transportation of material from the harbour to the landfill would generate significant vehicle movements on local roads, contributing to congestion and generating air and noise pollution, as well as road safety concerns.

3.2 Agricultural/Crofting Use

There is potential to use the dredged material as bedding for local livestock. Machinery will be in situ and local crofters may benefit from the loading of materials for depositing on their crofts accordingly. This option is being discounted due to the volume of material being dredged and the anticipated demand for this use. Should there be a level of demand, the option would be exercised along with option 3.3.

3.3 Sea Disposal

This option would simply redeposit the material over the harbour wall to the area hatched in blue in the below:



Dredging Positions

- 1- 58°29.530'N 006°13.645'W
- 2- 58°29.560'N 006° 13.614'W
- 3- 58°29.541'N 006° 13.572'W
- 4- 58°29.523'N 006° 13.613'W

Depositing Positions

- 5- 58°29.527'N 006° 13.588'W
- 6- 58°29.523'N 006° 13.583'W
- 7- 58°29.513'N 006° 13.607'W
- 8- 58°29.513'N 006° 13.608'W

4.1 Strategic considerations

4.1.1 Operational Aspects

The practicalities of disposing of dredged material at the designated deposit site are straightforward. It is likely that 2 tracked excavators would be used. One to dredge the site and deposit the material on the harbour car park and the other to transfer the material from there, over the breakwater to the designated disposal site. No preparation of the material is required prior to disposal.

4.1.2 Availability of Suitable Sites/Facility

No such site exists locally.

4.1.3 General Public Acceptability

The deposit site has a long history of use for disposal of dredged material. As there is no requirement for the dredged material to come ashore for onward transportation, there is no associated impact on the local road network.

4.1.4 Local Acceptability

There are no anticipated local acceptability issues associated with the continuation of a longstanding method of disposing of dredged material. Port of Ness Harbour has never received a complaint or enquiry from a member of the public regarding the disposal of maintenance dredged material at sea. No known objections have been received from members of the public relating to previous marine licence applications.

4.1.5 Legislative Implications

The existing deposit site has received dredged material from the harbour for many years. A marine licence would be required from Marine Scotland to dispose of material at the site.

4.2 Environmental considerations

4.2.1 Safety Implications

Disposal to sea would have negligible implications for safety providing that normal navigational and maritime procedures are observed.

4.2.3 Public Health Implications

There are no known threats to public health associated with sea disposal.

4.2.4 Pollution/Contamination Implications

The risk of pollution/contamination is extremely low with chemical analysis of the dredged material having already been provided to Marine Scotland.

4.3 Cost Considerations Estimated cost of sea disposal

4.3.1 The total cost of sea disposal is estimated at £3,000.

5.0 Best Practicable Environmental Option

The below table summarises the BPEO assessment presented in Section 4 by allocating a relative score of 0 or 1 for each option in each of the three areas considered, where a score of 0 is the least favourable option.

	Option 1 - Landfill	Option 2 - Agricultural/ Crofting Use	Option 3 - Sea Disposal
Strategic Considerations	0	1	1
Environmental Considerations	1	1	1
Cost Considerations	0	0	1
TOTAL	1	2	3