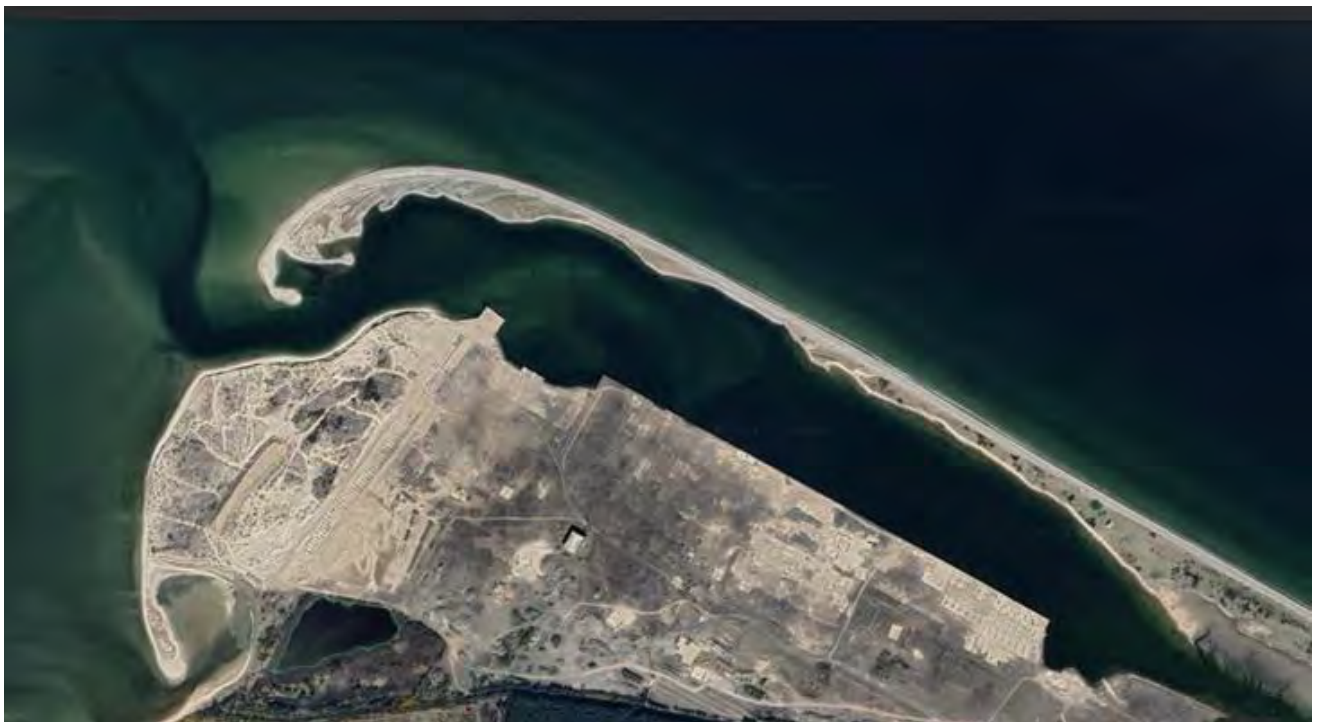


Ardersier Port Dredging Campaign Screening Request



November 2021

Ardersier Port Dredging Campaign Screening Request

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1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Ltd has been appointed by Ardersier Port Ltd to submit an Environmental Impact Assessment (EIA) Screening Request to Marine Scotland in respect of a proposal to revise Condition 3.3.1 of Dredging License MS-06859/19/1 for Ardersier Port located at grid reference NH812576. For the site location see Drawing No. 675015-GIS001, Appendix A.

1.2 Scope of Report

The EIA screening request has been prepared in accordance with the requirements of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter referred to as 'the Marine EIA Regulations'). Regulation 10 (2), (3) and (4) of the Marine EIA Regulations stipulate that a request for a screening opinion must be accompanied by:

- (2) *A request for a screening opinion under paragraph (1) must include—*
 - a) *a description of the location of the proposed works, including a plan sufficient to identify the area in which the works are proposed to be sited;*
 - b) *a description of the proposed works, including in particular—*
 - (i) *a list of all of the regulated activities which are proposed;*
 - (ii) *a description of the physical characteristics of the proposed works and, where relevant, works to be decommissioned; and*
 - (iii) *a description of the location of the proposed works, with particular regard to the environmental sensitivity of geographical areas likely to be affected;*
 - c) *a description of the aspects of the environment likely to be significantly affected by the proposed works; and*
 - d) *a description of any likely significant effects, to the extent of the information available on such effects, of the proposed works on the environment resulting from either, or both, of the following:—*
 - (i) *the expected residues and emissions and the production of waste, where relevant;*
 - (ii) *the use of natural resources, in particular soil, land, water and biodiversity.*
- (3) *A request for a screening opinion may, in addition to the information required in accordance with paragraph (2), also be accompanied by a description of any features of the proposed works or proposed measures envisaged to avoid or prevent significant adverse effects on the environment.*
- (4) *The information referred to in paragraph (2) is to be compiled taking into account, where relevant—*
 - a) *the selection criteria set out in schedule 3; and*
 - b) *the available results of any relevant assessment.*

The purpose of this EIA screening report is to provide the above information to aid Marine Scotland in reaching a screening opinion. The document presents environmental information and considers the potential for the proposed revisions to have effects on the site and surrounding environment.

1.3 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre.

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2 SITE SETTING AND PROPOSALS

2.1 Site Location

Ardersier Port is located 18 km to the northeast of Inverness on the southern shore of the Moray Firth and covers an area of approximately 820 hectares. A sand spit known as Whiteness Head forms the northern landward boundary of the port and a channel is located between the spit and a 1,000 m long quay. An area of sand dunes formed from excess dredge material during the initial construction phase is located along the western site boundary and low-lying coastal flats lie to the east. To the southwest of the site lies Fort George owned by the Ministry of Defence (MoD).

Access to the site is gained via a dedicated 2.5 km long access road, which links to the B9092 to the south. The B9092 subsequently links with the A96, which is the main transport link between Inverness and Aberdeen. For the site location see Drawing No. 675015-GIS001, Appendix A.

2.2 Background

Ardersier Port is situated within the former McDermott Fabrication yard, which was constructed in the 1970s for the fabrication of off-shore platforms for use in the North Sea oil and gas industry. The land it is sited on was reclaimed from the foreshore utilising dredged sand from the adjacent channel to create a working platform. The fabrication yard closed in 2001 and since then has been remediated.

As Ardersier Port lay dormant for circa 20 years the existing infrastructure requires upgrading which involves the construction of new quayside with associated capital dredging at the berth and navigation channel along with facilities to cater for vessels and normal port operations. Subsequently an Environmental Impact Assessment Report (Report Ref: KMcG/2017/11/0234, dated September 2018 hereafter referred to as the EIAR) was prepared under the Marine EIA Regulations to accompany marine licence applications for construction and dredging activities associated with port improvements.

At that time, it was envisaged that the capital dredging works would use a short duration – high volume dredge rate approach. This method entailed using a large self-propelled cutter suction dredger working from the open waters of the Moray Firth in towards the harbour. This would form the outer channel, then cut through the spit and finally dredge the harbour to the required berth depth. The sediment would be pumped to shore for stockpiling and subsequent reuse to initially form a permanent bund along the western / northwestern edge of the site boundary with the surplus being sold as a product to the construction industry. The permanent bund was to be positioned between the shoreline and the site to provide protection for birds that frequented the coastline.

The size of the initially envisaged cutter suction dredger was in the order of 140 m in overall length operating 24 hours per day, 7 days per week. For the purposes of the EIAR it was estimated that it would take 8 weeks to remove up to 4,600,000 wet tonnes of sand, which equates to a dredge rate of approximately 1,800 m³ per hour. The dredge pipe leading to the shore would have a diameter in excess of 1 metre to accommodate the dredge rate. Large plant/equipment would also be required for transporting the recovered material to land for bund formation and subsequent stockpiling.

Marine License MS-06859/19/1 (Dredging) was subsequently issued in September 2019. It took into account the outcomes of the EIAR which concluded that there was potential for the short duration – high volume dredge rate approach to have a significant impact on the ecological sensitivities of the area. Therefore, to protect the qualifying features of the Inner Moray Firth SPA and Moray Firth SPA, the dredging license included Condition 3.3.1 which stipulates:

“The licensee must ensure that no dredging activities take place between 1 October and 31 March inclusive each year.”

2.3 Current Dredging Proposals

The current proposals are to use a small dredger (under 25 m in length) which requires manoeuvring using spud legs (i.e. is not self-propelled) and as such is more suitable for working within the harbour area. Dredging operations using the small dredger would concentrate on the harbour area (refer to Drawing No. 675015-GIS005, Appendix A) during the winter months with the outer channel and spit not being dredged until after March 2022.

In comparison to the dredger previously used to inform the Construction Environmental Management Document (CEMD) as described above, the current one is under 25 metres in length and has a dredge pipe diameter of 0.45 m. (Refer to Figure 2-1 below). The size of the current dredger makes it much more manoeuvrable than a large vessel and more suitable for working within the harbour area.

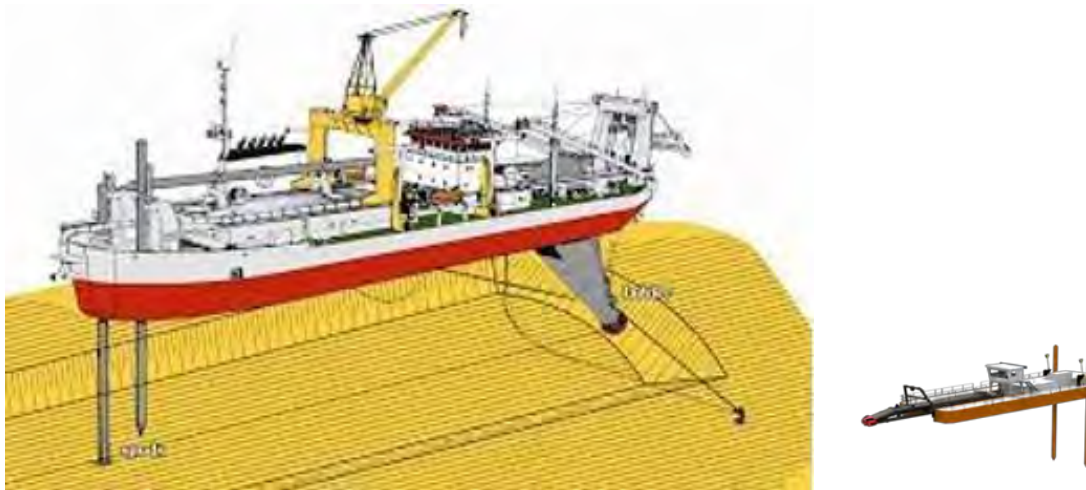


Figure 2-1: Schematic showing the original type of dredger (c. 140 m long) in comparison to the proposed dredger (c. 25 m long) [Scales are approximate]

The dredge rate of this vessel is up to approximately 800 m³ per hour. Assuming that the operation of the dredger is more likely to be 20 hours per day for 6 days per week, the dredge programme becomes around three times longer at approximately 25 weeks. As the dredging rate would be substantially lower than originally proposed the dredge pipe and associated plant/equipment to transport the recovered material to land for bund formation and subsequent stockpiling would be on a smaller scale.

The location of the harbour dredging during the winter would be well in excess of minimum recommended disturbance zones for overwintering birds (as identified in the Schedule of Mitigation) and during the more critical mid-winter period, the dredging would avoid areas with a direct line of sight to the key bird roost located at the end of the spit (see Drawing No. 675015-GIS005, Appendix A). Direct consultations and a site meeting have been held with Nature Scot to develop this proposed strategy.

2.4 Local Sensitivities

The surrounding area contains several designations within a 5 km radius, as illustrated within Drawing No. 675015-GIS002, Appendix A. These include the following:

- Moray Firth proposed Special Area of Protection (pSPA). The site lies within this SPA and it extends north of the site. It is designated for Common Eider, Common Goldeneye, common Scoter, Great Northern Diver, Greater Scaup, Long-tailed Duck, Red-breasted Merganser, Red-throated Diver, Slavonian Grebe, Velvet Scoter and European Shag.
- Inner Moray Firth Special Area of Protection (SPA). The site lies within this SPA and it extends north of the site. It is designated for Common Tern, Osprey, Bar-tailed Godwit, Greylag Goose, Red-breasted Merganser, Redshank, Greater Scaup, Eurasian Curlew, Goosander, Common Goldeneye, Teal, Wigeon, and Great Cormorant.
- Whiteness Head Site of Special Scientific Interest (SSSI). The site encompasses this SSSI, which is designated for coastal geomorphology, coastal features (saltmarsh, sand dunes and shingle), marine features (sandflats), Bar-tailed Godwit, and Knot.
- Moray Firth Special Area of Conservation (SAC). This SAC bounds the site to the north and is designated for subtidal sandbanks and bottlenose dolphins.
- Dornoch Firth and Morrich More SAC. This SAC lies 24 km north of the site and is designated for many habitat and vegetation interests, however due to the easterly direction of coastal process at Ardersier, and the distance between the two sites, there is not considered to be any habitat connectivity. With regard to winter dredging, the designated feature of note is the harbour seal.
- River Moriston SAC. This SAC lies 55 km southwest of the site and is designated for Atlantic salmon and freshwater pearl mussel, however there is no habitat connectivity between this SAC and Ardersier Port for Freshwater pearl mussel.

Other aspects of the environment within the harbour with the potential to be affected by winter dredging operations include:

- Salmonids;
- Marine mammals;
- Otter;
- Wildfowl;
- Terns;
- Waders;
- European Shag; and
- Whooper Swan.

2.5 Causes of Concern

The main concerns in relation to dredging operations identified in the EIAR were:

- Dredging of Whiteness Spit would result in habitat loss;
- Disturbance of birds through direct noise and visual disturbance;
- Increase in underwater noise and potential impacts on marine mammals;
- Increases in vessel movements and potential impacts on marine mammals;
- Increased turbidity within the waters of the Moray Firth via a disturbance of sediments; and
- Contamination of coastal water and sediments from accidental pollution incidents

These concerns were assessed in the EIAR report with a summary of the assessment outcomes informing the development of a site-specific Schedule of Mitigation. The Schedule of Mitigation presents a summary of the mitigation and enhancement measures required to limit environmental impacts identified in the individual EIA specialist studies. The mitigation measures identified specifically for dredging using a cutter suction dredger utilising the short duration – high volume approach is provided in Table 2-1.

Table 2-1: Schedule of Mitigation associated with dredging activities

Ref*	Mitigation
1	Prepare and maintain a Construction Environmental Management Document (CEMD), subject to approval from the appropriate Statutory Authorities.
2	Maintain updated schedule of mitigation to include all mitigation proposed in support of the HRO, marine licenses and planning conditions.
3	Appoint an Environmental Clerk of Works (ECoW)
4	Establish an Ecological Management Group (EMG) to advise and support the design and implementation of mitigation measures and to undertake ongoing monitoring of designated sites and protected species. Composition of the group is as stated in the Statutory Approvals.
5	Establish an Ecological Management Group (EMG) to advise and support the design and implementation of mitigation measures and to undertake on going monitoring of designated sites and protected species. Composition of the group is as stated in the Statutory Approvals.
8	Mitigation measures against the introduction of non-native species include: <ul style="list-style-type: none"> a) Remove any visible plant, fish, animal matter and mud from the vessel, in particular the hulls should be cleaned regularly; b) Safely dispose of any plant and animal material removed from the vessel; c) Toolbox talks will be given and posters to aid identification of non-native species will be disseminated to all members of staff involved in the project. These will aid on the management and control of marine non-native species; d) Ideally, all equipment and vessels required will be from within biogeographic regions where possible and all have undergone the necessary inspections (and certification) prior to arriving on site; and e) Should marine non-native species be identified on site, this should be reported to the relevant authority.
10	Prepare a Marine Mammal Protection Plan (MMPP) Marine Mammal Protection Plan
11	Prepare and implement a Seal Injury Avoidance Scheme ("SIAS"). Mitigation measures identified within the SIAS includes: <ul style="list-style-type: none"> a) Have a Marine Mammal Observer Present during all dredging and overwater piling activities to ensure that no seals enter the area during the operations, in particular during the seal breeding season (July – August); b) Employ a soft start approach to activities to allow any marine mammals present to vacate the area; and c) Develop and implement a Vessel Management Plan
13	No dredging operations take place during the November to March period.
18	Formation of the Storage Area Bunds A Permanent bund will be constructed to provide screening of the nearest known coastal roost site. This work would be completed prior to any dredging commencing. Once the permanent bund has been created the temporary bund will be constructed around the remaining coastal perimeter. For more details, please refer to drawing as indicated.

* Denotes the reference number in the Schedule of Mitigation

3 EIA SCREENING

Ardersier Port Ltd seek a formal Screening Opinion from Marine Scotland as the Consenting Authority under Regulation 10(1) of the Marine EIA Regulations in respect of a proposal to revise Condition 3.3.1 of Dredging License MS-06859/19/1. The approximate National Grid Reference (NGR) for the centre of the site is NH812576 with the site boundary shown in Drawing No. 675015-GIS001, Appendix A.

Under the EIA Regulations, proposals are screened to determine whether they fall within one of the types or scales of development which would require an EIA. In screening an application, consideration is given to whether the proposal would fall into any of the categories set out in Schedules 1 or 2 of the Regulations.

The EIA Regulations do not attempt to define 'significant effects' as each development must be dealt with in its own merits. Schedule 1 of the Regulations lists types and scales of development for which an EIA will always be required. Schedule 2 of the Regulations lists types and scales of development for which an EIA might be required, subject to assessment under Schedule 3.

3.1 Assessment in Relation to Schedule 1

The development was originally identified as being a Schedule 1 development as it fell under

Paragraph 8 (2) - Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350 tonnes.

3.2 Assessment in Relation to Schedule 2

Marine Scotland have indicated that the proposed change to dredge through the winter period requires to be screened under Schedule 2. The Schedule 2 paragraph it falls under is:

Paragraph 14 - Any change to or extension of works of a description mentioned in schedule 1 (other than a change or extension falling within paragraph 21 of schedule 1) where those works are already authorised, executed or in the process of being executed.

As such it is considered necessary to assess the proposed alterations to the dredging activity against the criteria contained in Schedule 3 in order to establish whether or not an EIA will be necessary.

3.3 Assessment in Relation to Schedule 3

Schedule 3 of the Regulations provides selection criteria for the screening of Schedule 2 developments. It must be noted that there are no rigid thresholds providing a universal test of whether or not an EIA is required. The proposal must be considered on a case-by case basis by virtue of factors such as its nature, size or location. The fundamental test to be applied in each case is whether that particular type of development proposed, and its specific impacts are likely, in that particular location, to result in significant effects on the environment.

3.4 Climate Change

Climate change has taken a prominent position within policy and legislation at a national level, with the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019¹ amending the Climate Change (Scotland) Act 2009². The 2019 Act sets a target date of 2045 for Scotland reaching net-zero emissions.

In addition, under Schedule 4(4), the Marine EIA Regulations require:

“A description of the factors specified in Regulation 5(3) likely to be significant affected by the works... (Including) climate (for example greenhouse gas emissions, impacts relevant to adaption)”

Note: Climate change was considered in the EIAR in Chapter 3 The Proposed Development specifically in relation to its vulnerability to climate change such as the impact on flooding. As this topic is not directly relevant to dredging activities it has not been considered further.

¹ *Climate Change (Emission Reduction Targets) (Scotland) Act 2019 (asp 15)*. Available at: <https://www.legislation.gov.uk/asp/2019/15/enacted>

² *Climate Change (Scotland) Act 2009 (asp 12)*. Available at: <https://legislation.gov.uk/asp/2009/12/contents>

4 ASPECTS OF ENVIRONMENT POTENTIALLY AFFECTED AND POTENTIAL MITIGATION MEASURES

4.1 Aspects of the Environment Potentially Affected by the New Proposals

Section 2.5 above identified the main concerns in relation to dredging activities as being as listed below and the EIAR considered the potential impacts of these within individual specialist assessments the outcomes of which were summarised within the Schedule of Mitigation.

- Dredging of Whiteness Spit would result in habitat loss;
- Disturbance of birds through direct noise and visual disturbance;
- Increase in underwater noise and potential impacts on marine mammals;
- Increases in vessel movements and potential impacts on marine mammals;
- Increased turbidity within the waters of the Moray Firth via a disturbance of sediments; and
- Contamination of coastal water and sediments from accidental pollution incidents

The current proposals will use a smaller dredger at a slower rate of dredging over a longer period during the winter months within the harbour area only which is sheltered from the wider Moray Firth by Whiteness Spit. The proposed dredging activities will be undertaken with cognisance to the Schedule of Mitigation. As such it is considered the EIAR conclusions relating to Whiteness Spit habitat loss, increased turbidity and contamination of coastal waters, where relevant, remain valid. As such there is no requirement to re-assess the revised dredging proposals against these sensitivities.

It is considered that as the approach channel from the Moray Firth to the harbour area is restricted by current water depths, marine mammals will be prevented from entering the harbour area. As dredging will concentrate within the harbour area only during the winter months, the potential for impacts on marine mammals from underwater noise and vessel movements is considered to not be relevant to this activity. It should be noted that should a marine mammal be identified in the harbour area then the measures detailed in the Schedule of Mitigation will be followed.

As the EIAR identified that dredging during this period had the potential to significantly impact local ecological sensitivities in particular birds, the Ornithological Assessment was reappraised.

4.2 Ornithological Assessment of New Dredging Methods during the Winter Period

An assessment of the new dredging proposals on the qualifying species of the SPA by the experienced field ornithologist Roy Dennis (who has surveyed this site since 1972) concludes that there will be minimal disturbance on the species of concern as a result of utilising the smaller dredger in conjunction with the distance between the roosting sites and area to be dredged (as set out in Drawing No. 675015-GIS005, Appendix A). To ensure qualifying species are protected, Roy Dennis will produce a protocol (based on Drawing No. 675015-GIS005, Appendix A) to minimise disturbance which will be provided to site workers prior to works commencing. Full details of the assessment along with bird counts are provided in Appendix B.

4.3 Statutory Consultation on the New Dredging Methods during the Winter Period

Consultation was conducted with NatureScot regarding the new dredging methods and the proposal to dredge during the winter period. Discussions were conducted on site on 24th September 2021 and during a subsequent follow-up meeting on 1st October 2021 with NatureScot and MSLOT.

In conclusion we understand that NatureScot would consider the new approach to be acceptable in principle, subject to agreeing a protocol to manage and monitor the implementation.

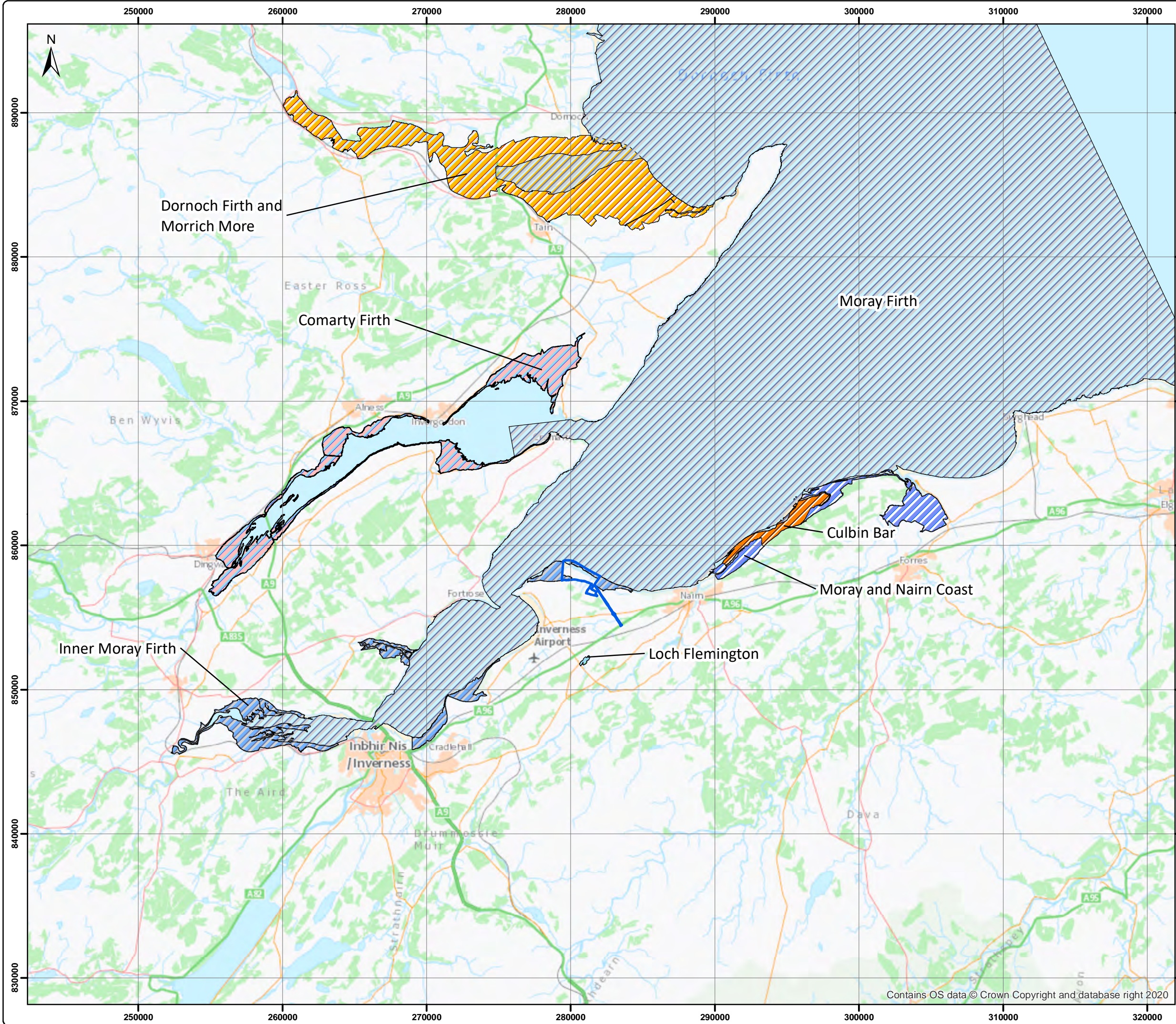
5 CONCLUSIONS

The EIAR assumed a “worst-case” scenario of short duration – high volume dredge rate approach utilising a large dredger and plant and considered the potential impacts on the entire area to be dredged i.e. the open waters of the Moray Firth, the approach channel, through Whiteness Spit and the harbour area. The resulting Schedule of Mitigation summarised the mitigation and enhancement measures required to limit environmental impacts identified in the individual EIA specialist studies of this “worst-case” scenario. This included the requirement to restrict dredging activities during the winter period i.e. November to March which was subsequently conditioned in the dredging license.

The current proposals will use a smaller dredger at a slower rate of dredging over a longer period within the harbour area only. It is therefore considered that any impact on the environment as a result of these current proposals occurring during the winter period can be managed through adhering to the measures listed in the Schedule of Mitigation and the development of a protocol based on the plan set out in Drawing No. 675015-GIS005 (Appendix A) to minimise disturbance to foraging and roosting birds.

APPENDICES

A DRAWINGS



Legend

Port Boundary

Special Areas of Conservation (SAC)

- Culbin Bar
- Dornoch Firth and Morrich More
- Moray Firth
- River Moriston

Special Protection Areas (SPA)

- Cromarty Firth
- Inner Moray Firth
- Loch Flemington
- Moray and Nairn Coast

Do not scale this map

Client

Ardersier Port (Scotland) Ltd.

Project

Ardersier Port Decommissioning and Ship Recycling

Title

Designated Sites

Status		
FINAL		
Drawing No. 675015-GIS002	Revision -	Date 07 June 2021
Drawn JAS	Checked MN	Approved KMD

Scale
1:250,000 @A3

0 1,250 2,500 5,000 7,500 Metres

Rev	Date	Amendment	Initials
-	-	-	-



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B ORNITHOLOGY ASSESSMENT

[illegible]

2019/20 Count data. The winter counts for oystercatchers and curlews were higher than the previous winter with an oystercatcher peak count of 740 in October compared to 667 in October 2018; while curlews peaked at 157 in February as against 79 in March 2019. Knot peak count was 520 as against 1400 in 2018. Redshanks occur principally in the harbour and Delnies saltmarsh, their numbers have held up with a peak count of 196 in October 2019

Date	10/8/19	13/10/19	6/12/19	15/12/19	12/1/20	8/2/20	11/2/20	28/2/20	26/5/20
Oystercatcher	491	740	697	713	488	129	394	296	51
Knot	22	436	170	37	190	0	520	38	2
Dunlin	14	86	0	480	425	0	210	536	3
Bar-tailed Godwit	2	128	99	186	128	1	310	79	26
Curlew	110	74	94	141	93	76	76	157	2
Redshank	21	196	45+	177	192	30	163	76+	
Turnstone	0	11	1	0	0	1	8	8	0

2018/19 Count data: Wader species, with the exception of redshank, continue to show declines. The winter counts for oystercatchers and curlews were fewer. There were 1400 knot on 20th November 2018 but otherwise numbers were lower than in the past. Redshanks occur principally in the harbour and Delnies saltmarsh, but some now feed on the tidal flats north of the yard.

Date	30/8/18	14/10/18	20/11/18	9/12/18	17/12/18	6/1/19	24/1/19	10/2/19	13/3/19	29/3/19
Oystercatcher	NC	667	249	165	178	144	157	139	173	163
Ringed Plover	208	7	18	0	0	0	0	0	2	0
Golden Plover	0	0	0	0	0	0	21	0	0	0
Knot	40	0	1400	350	190	2	0	66	17	68
Sanderling	24	0	6	0	0	0	0	11	0	0
Dunlin	227	105	780	390	870	33	228	258	36	0
Bar-tailed Godwit	18	33	47	7	57	36	8	46	94	34
Curlew	NC	21	40	34	66	24	67	64	64	79
Redshank	NC	161	241	223	203	151	151	186	154	184
Turnstone	0	6	3	3	0	0	2	11	0	0

Roy Dennis 29/9/21