WLC 19030 Port Edgar Dredging Licence Extension

HRA Screening

10/02/2020

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Tables

1 INTRODUCTION

1.1 Background

Wildlife Consulting Ltd (WLC) was commissioned by Mhor Environmental Ltd, on behalf of their client, Port Edgar Marina Ltd to produce an Habitats Regulations Assessment (HRA) Screening report in relation to a proposed plough dredging area, an installation of pontoons at the West Pier, in Port Edgar marina.

There is currently a maintenance dredging licence for another area with Port Edgar which is also dredged to allow operations to occur (licence number 06629/19/0). However, with increased demand of use within the port the requirement to use the west pier has brought on the requirement for these works.

The West Pier capital dredge application was submitted to Marine Scotland on 10th December 2019 (See Appendix A). The West Pier pontoon application was submitted to Marine Scotland on 9th December 2019 (See Appendix B).

The West Pier Dredging and Pontoon installation work were originally proposed to be undertaken in concurrently with an additional proposed dredging project in Port Edgar Marina located in the east of the Marina, for Forth Boat Tours. However, initial consultation with Marine Scotland and Scottish Natural Heritage indicated that this may require Environmental Impact Assessment (EIA) process and would likely need to be screened in this regard. As such Port Edgar Marina wish to progress with the West Pier Works only at this time.

1.2 Site Location

The Development site lies immediately east of the Queensferry Crossing in Port Edgar Harbour in the Firth of Forth (Grid reference NT 11892 78694). The Site partially lies within the Firth of Forth Special Protected Area (SPA), which is designated on account of its internationally important bird populations, hence the need for HRA Screening.

1.3 Structure

This document comprises a Screening Matrix table and is supported by the following Appendices.

- Appendix A – Dredging Licence Application
- Appendix B – Pontoon Licence Application
- Appendix C – Illustration of Dredge Area
- Appendix D – Illustration of Pontoon Area
- Appendix E – Dredging Method Statement
- Appendix F – Pontoon Method Statement

2 HRA SCREENING MATRIX

The Screening Matrix Table below presents an examination of the proposed dredging and pontoon installation works to identify whether there is the potential for Likely Significant Effect (LSE) on the integrity of the Firth of Forth SPA and its qualifying species as determined in relation to the conservation objectives of the SPA).

Table 2-1: Screening Matrix

Screening Matrix	
Plan or Project Name:	Dredging and pontoon installation works at Port Edgar West Pier within the Firth of Forth SPA.
Natura 2000 Site under Consideration	Firth of Forth SPA.
Date:	2nd February 2020
Author (Name/Organisation):	Colin Nisbet/Wildlife Consulting Ltd
Verified (Name/Organisation):	Leigh Kelly/Mhor Environmental Ltd
Description of Project/Plan Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Site by virtue of:	
Land-take;	*Dredge:* The area to be dredged is approximately 1ha, located adjacent to the West Pier (see Appendix C), with approximately half of this area located within the SPA. The dredge will be between 1 and 1.5m deep. Initially, 20,000m^3 will be dredged and then following that 10,000m^3 will be dredged annually to allow the continued use of the west pier. Although this habitat loss will be permanent it is an extremely small fraction of the 6313.72ha area comprising the SPA. Due to the size of the area and the existing disturbance levels in this area, this land-take is not considered to adversely affect the integrity of the SPA. Method Statement included as Appendix E (further details previously submitted as supporting information to MS Licence Application). *Pontoon:* No additional land-take. 12 Galvanised steel columns to be attached to existing concrete posts that currently support the West Pier (see Appendix).

Screening Matrix	
	Provision of new 180m pontoon walkway (See Appendix). Duration of works expected to take approximately four weeks and to commence following the completion of the capital dredge. Method Statement included as Appendix F (further details previously submitted as supporting information to MS Licence Application).
Distance from the European Site or key features of the site	Approximately half of the area to be dredged lies within the boundaries of the SPA. The West Pier is installed on tidal mud within the SPA.
Resource requirements *(from the* European Site *or from areas in proximity to the site, where of relevance to consideration of impacts)*;	N.A.
Emissions (*e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution*[1]);	The material will be ploughed from the West Jetty location, where it will be taken out to the edge of the marina where it can disperse. The dredge will be undertaken by Briggs Marine – (full details provided in the supporting documentation for the licence application). • SEPA PPG 1: Understanding your Environmental Responsibilities – Good Environmental Practice • New GPP 5: Works and maintenance in or near water • PPG 14 Marinas and Craft
Excavation requirements (*e.g. impacts of local hydrogeology*);	The proposals are to dredge to a depth of between 1m and 1.5m within the dredge area around the West Pier. There will be a requirement for an annual maintenance of the dredge area, to ensure vessels can continue to use the West Pier Pontoon. The installation of the pontoon itself needs no further excavation as the steel columns will be attached to the existing concrete pier support poles.
Transportation requirements;	N.A.
Duration of construction, operation etc;	The dredging works are envisaged to take 30 days to complete (see Appendix A). The installation of pontoons on the West Pier are also predicted to take 30 days to complete (Appendix B).

Screening Matrix	
Other.	The proposed starting date is February 2020. The existing licensed dredge is scheduled to commence on 18th February and is predicted to take between one and two weeks. The preferred date for the commencement of this proposed dredge is immediately on completion of the existing licensed dredge.
Characteristics of European Site(s) A brief description of the European Site should be produced, including information on:	
Name of European Site and its EU code;	Firth of Forth (UK9004411)
Location and distance of the European Site from the proposed works;	Approximately half of the area to be dredged lies within the boundary of the Firth of Forth SPA.
European Site size;	6313.72ha
Key features of the European Site including the primary reasons for selection and any other qualifying interests;	The Firth of Forth SPA is a complex of estuarine and coastal habitats in south east Scotland stretching east from Alloa to the coasts of Fife and East Lothian. The site includes extensive invertebrate-rich intertidal flats and rocky shores, areas of saltmarsh, lagoons and sand dune. The site is underpinned by the Firth of Forth SSSI. The full list of qualifying species is presented below. (http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8499&p_Doc_Type_ID=16).
Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways; &	The European Site conservation objectives (listed in the next section) refer to maintaining habitat quality within the SPA and the avoidance of significant disturbance to qualifying avian species in order to maintain their presence in the estuary. Within the overall context of the SPA the loss of approximately 0.5 ha of tidal mud within a habitat which has been evaluated as low – medium value for wintering birds due to high levels of existing human recreational disturbance in the area is not considered to be significant. As such, it is considered that the limited number of birds using the area would already be habituated to disturbance from any repair works.
European Site conservation objectives – where	To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity

Screening Matrix	
these are readily available.	of the site is maintained; and to ensure for the qualifying species that the following are maintained in the long term: • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species The list of qualifying species for the Firth of Forth SPA consists of: • Bar-tailed godwit (*Limosa lapponica*) • Common scoter (*Melanitta nigra*)* • Cormorant (*Phalacrocorax carbo*)* • Curlew (*Numenius arquata*)* • Dunlin (*Calidris alpina alpina*)* • Eider (*Somateria mollissima*)* • Golden plover (*Pluvialis apricaria*) • Goldeneye (*Bucephala clangula*)* • Great crested grebe (*Podiceps cristatus*)* • Grey plover (*Pluvialis squatarola*)* • Knot (*Calidris canuta*) • Lapwing (*Vanellus vanellus*)* • Long-tailed duck (*Clangula hyemalis*)* • Mallard (*Anas platyrhynchos*)* • Oystercatcher (*Haematopus ostralegus*)* • Pink-footed goose (*Anser brachyrhynchus*) • Red-breasted merganser (*Mergus serrator*)* • Redshank (*Tringa totanus*) • Red-throated diver (*Gavia stellata*) • Ringed plover (*Charadrius hiaticula*)* • Sandwich tern (*Sterna sandvicensis*) • Scaup (*Aythya marila*)* • Shelduck (*Tadorna tadorna*) • Slavonian grebe (*Podiceps auritus*) • Turnstone (*Arenaria interpres*) • Velvet scoter (*Melanitta fusca*)* • Wigeon (*Anas penelope*)* • Waterfowl assemblage * Indicates assemblage qualifier only (http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8499&p_Doc_Type_ID=29)
Plan or Project Name:	Dredging and pontoon installation works at Port Edgar West Pier within the Firth of Forth SPA.
Natura 2000 Site under Consideration	Firth of Forth SPA.

Screening Matrix	
Ornithology Baseline	In the absence of specific recent survey data the latest five year block of data (2013/14 – 2017/18) was purchased from the British Trust for Ornithology (BTO) for the count sector which includes the site, namely Location Code 83902: Abercorn to Queensferry. The BTO data included 20 bird species which either qualified as individual Firth of Forth species, or as part of the SPA assemblage. They are presented below with mean peak counts for the count sector for each species in brackets. *Individual Qualifying Species:* Pink-footed goose (103), Shelduck (43), Red-throated diver (1), Bar-tailed godwit (8), Knot (102), Redshank (120), Sandwich Tern (370), Turnstone (22). *Assemblage Qualifying Species:* Scaup (2), Wigeon (178), Mallard (82), Eider (52), Goldeneye (4), Red-breasted Merganser (11), Great Crested Grebe (9), Cormorant (8), Oystercatcher (120), Lapwing (1), Ringed Plover (8), Curlew (248).
Assessment Criteria Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Site.	
Two potential effects are envisaged to result from the works. They are identified as: • Permanent loss of intertidal mud flats due to the dredging, resulting in the loss of bird feeding habitat. • Disturbance of birds feeding on mudflats during dredging and pontoon installation work.	
Initial Assessment The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. *Describe any likely changes to the site arising as a result of:*	
Reduction of habitat area;	Dredging the areas adjacent to the west and the face of the pier will result in the loss of an area of approximately 1ha of tidal mud (0.5ha within the SPA).
Disturbance to key species;	The area of the Abercorn to Queensferry BTO Count Sector is 530.63ha. Under the assumption that SPA birds may be temporarily displaced to a distance of 500 m from the works a 500 m buffer was drawn around the dredge and pontoon area, which equates to 102.32 ha, or 19.28 % of the area of the count sector. To the nearest whole number 19.28 % of the Abercorn to Queensferry Count Sector of SPA birds was extrapolated to determine a 'worst case' disturbance scenario. This is considered to be very precautionary given the remainder of this count lies

Screening Matrix	
	in a much less disturbed situation across Hopetoun Bank to Abercorn Point, with abundant feeding areas of tidal mud present. *Extrapolated Proportion of Individual Qualifying Species:* Pink-footed goose (20) – 0.18% SPA population, Shelduck (8) – 0.18% SPA population, Red-throated diver (0.19) – 0.2% SPA population, Bar-tailed godwit (2) - 0.10% SPA population, Knot (20) – 0.22% SPA population, Redshank (23) – 2.76% SPA population, Sandwich Tern (71) – 4.39% SPA population, turnstone (4) – 0.47& SPA Population. *Extrapolated Proportion of Assemblage Qualifying Species:* Scaup (0.39) – 0.01% of the SPA population, Wigeon (34) – 1.59% SPA population, Mallard – (16) - 0.62% SPA population, Eider (10) - 0.11% SPA population, Goldeneye (1) - 0.03% SPA population, Red-breasted Merganser (2) - 0.30% SPA population, Great Crested Grebe (2) - 0.28% SPA population, Cormorant (2) - 0.29% SPA population, Oystercatcher (23) - 0.29% SPA population, Lapwing (0.19) -0.04% SPA population, Ringed Plover (2) - 0.61% SPA population, Curlew (48) – 2.49% SPA population, It is considered that the abundant areas of tidal mud located immediately east and west of the site on the south side of the Firth of Forth will provide ample foraging opportunities to readily accommodate any temporarily displaced birds. Port Edgar Marina is already subject to high levels of disturbance in the form of recreational boating, and traffic using the adjacent area. As such, birds using this area are expected to have habituated to this effect.
Habitat or species fragmentation;	N.A.
Reduction in species density;	N.A.
Changes in key indicators of conservation value (water quality etc.); &	N.A.
Climate change.	N.A.
Describe any likely impacts on the European Site as a whole in terms of:	
Interference with the key relationships that define the	A minor area of the tidal mudflat will be removed under the proposals. This is less than 0.008% of the total area of the SPA and, as such, it is considered that

Screening Matrix	
structure of the site; &	any interference with the key relationships that define the structure of the SPA will not adversely affect its make up.
Interference with key relationships that define the function of the site.	Due to the small area affected by the proposed works, the level of SPA birds likely to be using the area for foraging and the extensive suitable foraging habitat located adjacent to the site, it is not considered that any key relationships between wintering birds and the site (namely important feeding areas, roosting areas and commuting routes) will be affected.
Indicate the significance as a result of the identification of impacts set out above in terms of:	
Reduction of habitat area;	Not significant
Disturbance to key species;	Not significant
Habitat or species fragmentation;	N.A.
Loss;	N.A.
Fragmentation;	N.A.
Disruption;	N.A.
Disturbance; and	Not significant
Change to key elements of the site (*e.g. water quality, hydrological regime etc*).	N.A.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	
N.A.	
Outcome of screening stage	The conservation objectives for the SPA relate to the maintenance of the wintering bird populations (post breeding population for sandwich tern) and their supporting habitats. The majority of the habitats within the vicinity of the proposals comprise rocky shoreline and a small number of rocky outcrops. Only a few areas of fine substrate (sand and mud) area present, which are completely

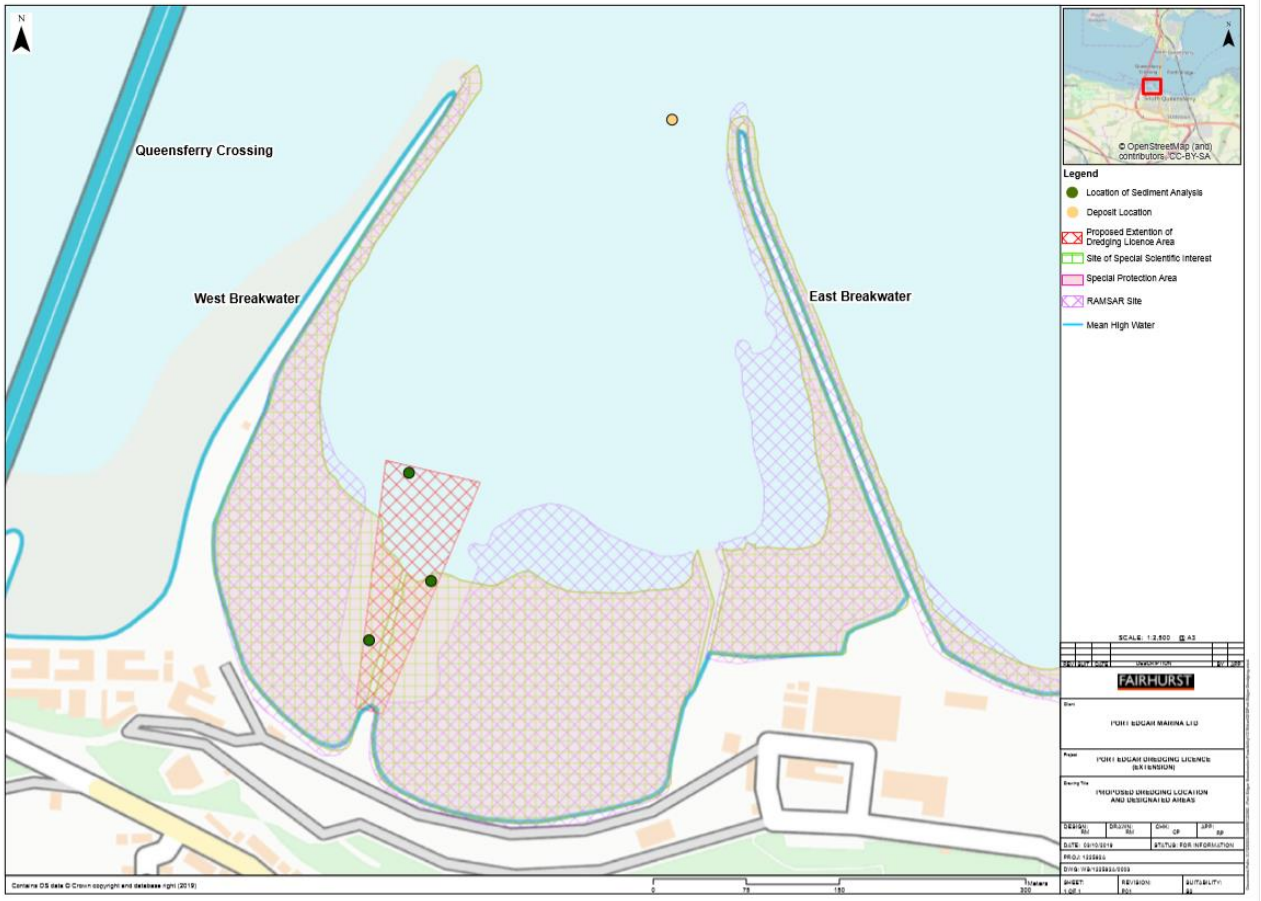
Screening Matrix	
	submerged at high tide. These offer a limited foraging resource for wintering avifauna. The areas to be lost form less than 0.008% of the total area of the Firth of Forth SPA and, as such, this loss is not considered to be significant. In conclusion, it is considered **no likely significant effect** on the Firth of Forth SPA resulting from the proposals.

3 APPENDICES

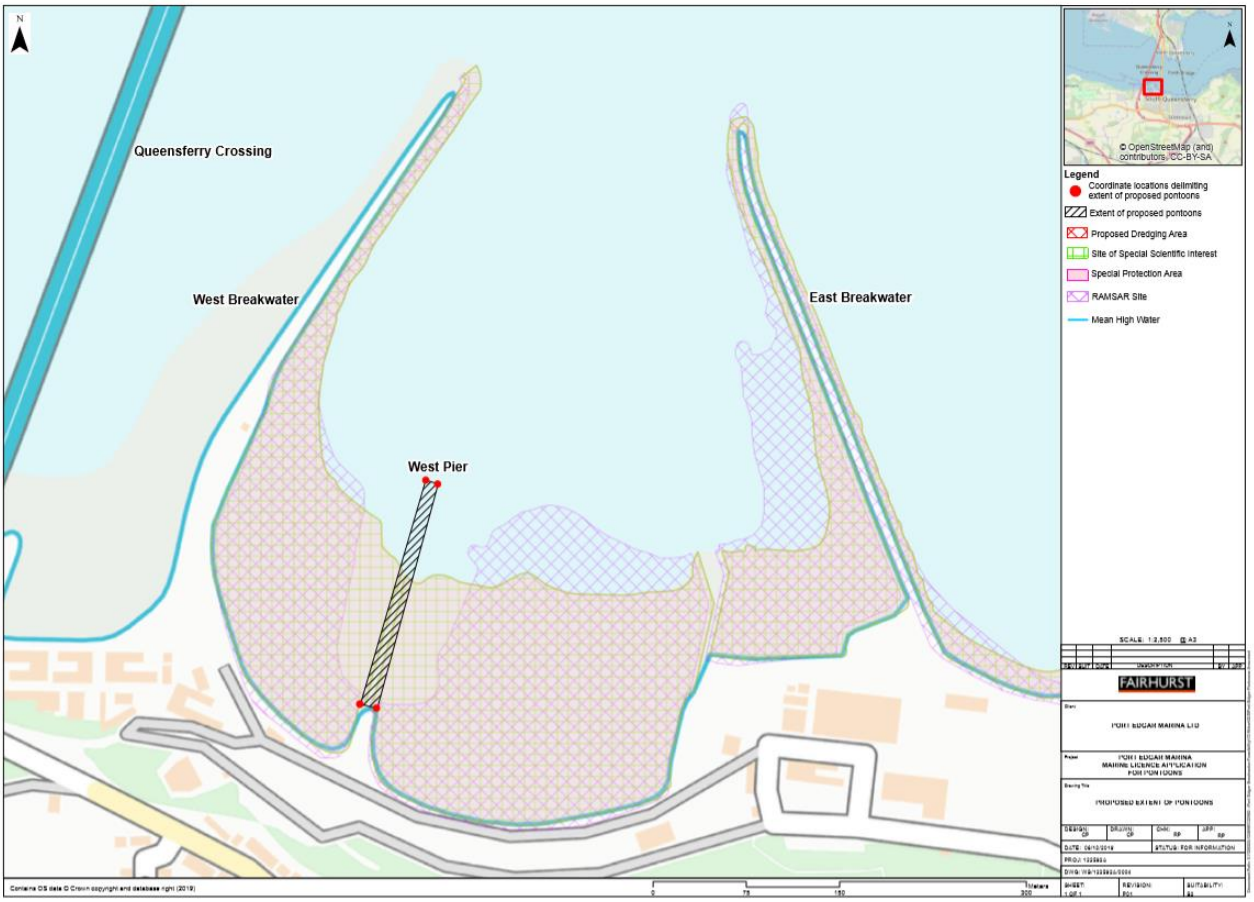
APPENDIX A - Dredging License Application Attached as Separate Document

APPENDIX B - Pontoon License Application Attached as Separate Document

APPENDIX C – Location of Dredging Works



APPENDIX D – Location of Pontoon Works



APPENDIX E – Dredging Method Statement Attached as Separate Document

APPENDIX F – Pontoon Method Statement Attached as Separate Document