

# Attachment-6-2-1 AA Screening

*Report on Appropriate Assessment Screening included as Appendix 5.2 of EIAR which accompanies Waste Licence Application.*

5.2 REPORT ON APPROPRIATE ASSESSMENT SCREENING

Proposed Infill of Quarry at Garryhesta,  
Ovens, Co Cork

Ecological impacts on Natura 2000 sites

Appropriate Assessment  
Stage 1 Screening

Report prepared for Roadstone Ltd

February 2017

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### 5.2.1 INTRODUCTION

The purpose of this report is to examine possible ecological impacts of the proposed development on the Natura 2000 site network and it is submitted to fulfil the mandatory requirement under Articles 6(3) and 6(4) of the Habitats Directive.

The report is written after a site visit in January 2017. It is part of the appropriate assessment procedure following the outline of the NPWS Guidance document (DoEHLG 2009).

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### 5.2.2 APPROPRIATE ASSESSMENT

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#### 5.2.2.1 Introduction

Appropriate assessment was introduced by the EU Habitats Directive as a way of determining if a planned project is likely to have a significant effect on one of the Natura 2000 sites so far designated (i.e. the candidate SAC's and SPA's), or their conservation objectives. In this case there are no sites within 15km, the nearest such area is the Cork Harbour SPA (Site Code 4030) which begins downriver from the City and is joined by the Great Island Channel SAC (Site Code 1058) further to the east.

Article 6(3) states

*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives....*

In the Irish context this has been interpreted as a three-stage process. Firstly a screening exercise (Stage 1, this document) determines if a project could have significant effects on a Natura site. If it does or the situation is unclear a Natura Impact Statement (Stage 2) is provided to the planning or regulatory authority which then conducts an Assessment of the information supplied. Examples of significant effects are loss of habitat area, fragmentation of the habitat, disturbance to species using the site and changes in water resources or quality. If negative effects come to light in the assessment, alternative solutions are investigated by the proponent (Stage 3) and modifications made unless the project is deemed to be driven by 'imperative reasons of overriding public interest' in its current form. In this case Stage 4 then deals with compensatory action.

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#### 5.2.2.2 Project Description

The proposed development consists of restoration of part (c. 6.7 ha) of existing quarry by importation of up to 300,000 tonnes per annum of inert soil and stones and river dredging spoil. The total infill is in the order of 2.3 million tonnes over a period of c.8 to 10 years.

The proposed application site area (for infilling) will be confined to a relatively small section of the sand and gravel pit, much of which has already been worked out. The total landholding extends to c. 77.2 ha. The proposed site for backfilling using imported inert soil and stone is located on the north-western corner of the landholding. The pit proposed for infilling is approximately 430m in length and 150m in width with a depth of up to c. 31 m below the local natural ground level. The groundwater level can temporarily rise above the level of the pit floor during very wet periods over winter. Infilling will only be completed when the groundwater level is at or below the base of the pit.

Once the quarry is re-instated it will be seeded with a suitable mix of grasses suitable for pasture in order to quickly stabilise the topsoil. Once the grass sward has become established the restored farmland can be kept either as pasture or hay meadow.

Roadstone propose to carry out the reclamation works in accordance with the principles of Tier 3 of the Green, Low Carbon, Agri-environment Scheme (GLAS). Consideration will be given through the land reclamation scheme to conservation of arable grass margins, conservation of solitary bees, coppicing and planting of native trees and hedgerows and the final establishment of traditional hay meadow.

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#### 5.2.2.3 Natura Sites

The Cork Harbour Special Protection Area is designated for its bird interests, especially the wintering waterfowl listed below. It provides good quality feeding areas for a diversity of waterfowl species and is an internationally important site, regularly supporting over 20,000 wintering waterfowl. The most recent published data (Crowe *et al* 2012) show that there is an internationally important population of Black-tailed Godwit and nationally important numbers of shelduck, wigeon, teal, mallard, shoveler, red-breasted merganser, little grebe, great crested grebe, cormorant, oystercatcher, golden plover, lapwing, dunlin, bar-tailed godwit, curlew, greenshank, redshank and turnstone.

The SPA Qualifying interests are:

A004 Little Grebe *Tachybaptus ruficollis*

A005 Great Crested Grebe *Podiceps cristatus*

A017 Cormorant *Phalacrocorax carbo*

A028 Grey Heron *Ardea cinerea*

A048 Shelduck *Tadorna tadorna*

A050 Wigeon *Anas penelope*

A052 Teal *Anas crecca*

A054 Pintail *Anas acuta*

A056 Shoveler *Anas clypeata*

A069 Red-breasted Merganser *Mergus serrator*

- A130 Oystercatcher *Haematopus ostralegus*
- A140 Golden Plover *Pluvialis apricaria*
- A141 Grey Plover *Pluvialis squatarola*
- A142 Lapwing *Vanellus vanellus*
- A149 Dunlin *Calidris alpina alpina*
- A156 Black-tailed Godwit *Limosa limosa*
- A157 Bar-tailed Godwit *Limosa lapponica*
- A160 Curlew *Numenius arquata*
- A162 Redshank *Tringa totanus*
- A179 Black-headed Gull *Chroicocephalus ridibundus*
- A182 Common Gull *Larus canus*
- A183 Lesser Black-backed Gull *Larus fuscus*
- A193 Common Tern *Sterna hirundo*
- A999 Wetlands

The Great Island Channel SAC is an integral part of Cork Harbour with very well-developed saltmarshes and mudflats able to support the wintering birds listed above. Its qualifying habitat interests are:

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

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#### 5.2.2.4 Conservation Objectives

##### 5.2.2.4.1 SPA

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In each case the objective (NPWS 2014a) is to maintain the favourable conservation condition of the species in the Cork Harbour SPA which is defined by overall numbers and distribution over the feeding area, both being subject to natural variations.

##### 5.2.2.4.2 cSAC

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The objectives are similar (NPWS 2014b), i.e. to maintain or restore the favourable conservation condition of the habitats, measured by the extent and distribution of each and their natural communities of plants and animals.

The favourable conservation condition of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself
- the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future

- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Favourable conservation condition of a habitat is achieved when:

- its natural range, and area it covers within that range, is stable or increasing,
- the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

#### 5.2.2.4.3 Likely Effects

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The project site is about 17km from the boundary of the SPA and further still from the SAC. It shares no species or habitats with them and cannot act as a 'reserve' area to repopulate them in case of loss.

There are in fact no likely impacts on the Natura 2000 sites. There is no direct pathway linking Garryhesta to them; the only connection is through the groundwater which will be fully protected by the sand and gravel deposit remaining on the bed of the quarry.

#### 5.2.3 CONCLUSIONS

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There is no likelihood of significant ecological effects from this development on any of the sites in the Natura 2000 network or on their conservation objectives. Since this is the case, possible 'in combination' effects do not arise.

The further, more detailed, stages of appropriate assessment are not required.

#### 5.2.4 REFERENCES

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- Boland, H., Crowe, O. & Walsh, A. (2012). Irish Wetland Bird Survey: results of waterbird monitoring in Ireland in 2010/11. *Irish Birds* 9, pp. 397-410.
- DoEHLG (2009). *Appropriate assessment of plans and projects in Ireland: guidance for planning authorities*. Dept of Environment, Heritage and Local Government (DoEHLG), Dublin, Ireland.
- Fossitt, J.A. (2000). *A guide to habitats in Ireland*. Heritage Council, Dublin, Ireland.
- NPWS (2014a) Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service (NPWS), Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- NPWS (2014b). Conservation Objectives: Great Island Channel SAC 001058. Version 1. National Parks and Wildlife Service (NPWS), Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

### 5.2.5 SITE SYNOPSES

#### **CORK HARBOUR SPA**

**SITE CODE: 004030**

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poul nabibe inlets. Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail, Shoveler, Redbreasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Blackheaded Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five year mean peaks for the period 1995/96 to 1999/2000. Nationally important populations of the following 19 species occur: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Mallard (513), Pintail (57), Shoveler (103), Red-breasted Merganser (121), Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bartailed Godwit (233), Curlew (2,237) and Greenshank (46). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall (6), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site. A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted

Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter. Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed. Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.

#### **GREAT ISLAND CHANNEL SAC**

**SITE CODE: 001058**

The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owennacurra and Dungourney Rivers. These rivers, which flow through Midleton, provide the main source of freshwater to the North Channel.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (\* = priority; numbers in brackets are Natura 2000 codes):

[1140] Tidal Mudflats and Sandflats

[1330] Atlantic Salt Meadows

The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algal species occur on the flats, especially *Ulva lactuca* and *Enteromorpha* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially at Rossleague and Belvelly.

The saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass



(*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Greater Sea-spurrey (*Spergularia media*), Lax-flowered Sea-lavender (*Limonium humile*), Sea Arrowgrass (*Triglochin maritimum*), Sea Mayweed (*Matricaria maritima*) and Red Fescue (*Festuca rubra*).

The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. Shelduck is the most frequent duck species with 800-1,000 birds centred on the Fota/Marino Point area. There are also large flocks of Teal and Wigeon, especially at the eastern end. Waders occur in the greatest density north of Rosslare, with Dunlin, Godwit, Curlew and Golden Plover the commonest species. A population of about 80 Grey Plover is a notable feature of the area. All the mudflats support feeding birds; the main roost sites are at Weir Island and Brown Island, and to the north of Fota at Killacloyne and Harper's Island. Ahanesk supports a roost also but is subject to disturbance. The numbers of Grey Plover and Shelduck, as given above, are of national importance.

The site is an integral part of Cork Harbour which is a wetland of international importance for the birds it supports. Overall, Cork Harbour regularly holds over 20,000 waterfowl and contains internationally important numbers of Black-tailed Godwit (1,181) and Redshank (1,896), along with nationally important numbers of nineteen other species. Furthermore, it contains large Dunlin (12,019) and Lapwing (12,528) flocks. All counts are average peaks, 1994/95 – 1996/97. Much of the site falls within Cork Harbour Special Protection Area, an important bird area designated under the E.U. Birds Directive.

While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.

The site is of major importance for the two habitats listed on Annex I of the E.U. Habitats Directive, as well as for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.