

**Subject:** S0015-03

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**From:** Connor Rooney <[Connor.Rooney@chg.gov.ie](mailto:Connor.Rooney@chg.gov.ie)>

**Sent:** 19 August 2020 11:07

**To:** Wexford Receptionist <[REC\\_WEX@epa.ie](mailto:REC_WEX@epa.ie)>

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A chara,

Please find the heritage recommendations of the Department of Culture, Heritage, and the Gaeltacht for the above mentioned application.

#### Nature Conservation

The proposed application to the Environmental Protection Agency concerns the disposal at sea of material that it is proposed would be dredged from within the confines of Drogheda Port, Co Meath. Drogheda Port Company will also be engaging in a beneficial re-use option whereby a portion of the dredged material of up to 60,000 m3 may be beneficially reused within the construction industry. The dredging works are necessitated by the need to dredge the river entrance, seaward approaches, navigation channel, berths and swing basins to restore safe navigational water depths. The proposed dumping at sea site is not within any currently designated Natura sites. The applicants have furnished a Natura Impact Statement evaluating the proposed development. The maintenance dredging operation site lies within three European sites, the River Boyne and River Blackwater SAC, the Boyne Coast and Estuary SAC, and the Boyne Estuary SPA. The qualifying interests for each of those sites have been detailed. The prevalence of marine mammals and birds in the vicinity has been detailed.

The assessment, given its nature and location, requires input from a number of specialists, experts in their various disciplines. The assessment below on likely impacts on marine ecology, relates to our assessment of the information provided to NPWS and the assessment was carried out by our Marine Ecologist. That information, in the view of NPWS, did not include quantitative information relating to likely impacts on foraging resources for Little Terns, a matter for our Ornithologist to comment on. For the interests of clarity, the likely impacts on Little Terns requires specific mention and is addressed below by our Ornithologist in 'Impacts on birds –assessment'.

In relation to our previous observations, integrating assessment from different experts into one response is difficult and no ambiguity was intended.

If further clarity is required then the relevant contact is Mr Pdraig O' Donnell, Regional Manager, NPWS, NE Region, e-mail [padraig.odonnell@chg.gov.ie](mailto:padraig.odonnell@chg.gov.ie). Mobile Phone number 0872646412

It is worth noting here, July 2020, that the Little Tern breeding colony at the Boyne Estuary (Baltray) has had one of its most successful breeding seasons (pers. comm., Dominick Hartigan and Maurice McConaghty, Louth Nature Trust with P O Donnell, Regional Manager, NPWS, July 2020).

#### Impacts on marine ecology – assessment

Based on the ecological environment and the extent and characteristics of the operation the following potential impacts were identified:

- Habitat loss or disturbance
- Effects from siltation
- Disturbance and displacement impacts
- Mortality as a result of a pollution event
- Reduced prey availability
- Mortality as a result of entrapment
- Mortality as a result of collision

This NIS has examined and analysed, in light of the best scientific knowledge, with respect to those European sites within the zone of influence of the works, the potential impact sources and pathways, how these could

impact on the sites' special conservation interest species and whether the predicted impacts would adversely affect the integrity of the River Boyne and River Blackwater SAC, Boyne Coast and Estuary SAC, Rockabill to Dalkey Island SAC, Boyne Estuary SPA, River Nanny and Estuary SPA, River Boyne and River Blackwater SPA, Rockabill SPA, and, Dundalk Bay SPA. There are no other European sites at risk of effects from the works. The NIS has concluded that the proposed operations will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

The proposed seabed dumping-at-sea of sediment from Drogheda Port has been evaluated by a Natura Impact Statement and other documentation. The conclusion of the Natura Impact Statement document is that the proposed works are unlikely to pose a significant likely risk to nature conservation interests in the vicinity provided appropriate mitigation is implemented. The Department of Culture, Heritage and the Gaeltacht concur with this conclusion save for observation below relating to breeding Little Tern .

The proponent should also ensure that other activities not covered by the EPA Dumping-at-Sea Consent application take account of requirements for assessment under European and national legislation for nature conservation.

#### Impacts on birds - assessment

These observations are based from reading the Natura Impact Statement, [http://www.epa.ie/licences/lic\\_eDMS/090151b28072fccd.pdf](http://www.epa.ie/licences/lic_eDMS/090151b28072fccd.pdf)

It should be noted here that the layout of the EPA's webpages in relation to this application is not very user friendly. It could be improved by having more descriptive titles to the various links.

The primary concern relates to the NIS's stated exclusion of likely impacts that the maintenance dredging may have on the foraging resources of the Little Tern population of Baltray which is a listed interest for Boyne Estuary SPA (code 80004080).

In this particular case the most pertinent pathways for the dredging to negatively impact of the breeding population of Little Tern's foraging resources are: (a) increased turbidity of the water column causing a reduction in the foraging efficacy of the terns and/or the displacement of their prey species; and (b) direct impact caused by the collection and/or dumping of dredged material to the seabed causing a reduction in the local prey base. By way of introduction to the ecology of Little Tern Parsons et al (2015) citing various references set out the following:

- The foraging range of little tern ... is smaller than that of the larger tern species ... this dictates that it nests close to shallow coastal waters with a supply of small shoaling fish such as sandeels and clupeids and invertebrates which comprise its diet.
- Maximum foraging range from the colony from the literature is 11km, mean maximum range =  $6.3 \pm 2.4$ , mean = 2.1km [but caveats may apply due to small sample sizes]
- In a literature review of foraging ecology of terns, concluded that most studies, including those citing anecdotal information, reported a foraging radius less than 4km from the colony
- Significant variation in foraging range occurs between colonies and between years
- Within colonies, ranges have been found to be significantly greater during incubation (April-May ~1.6–2km) than during chick rearing (June-July ~1-1.2km)
- Land-based counts are not ideal for marine species as individuals beyond 2km from the coast will not be counted Parsons goes further to describe the findings of dedicated boat transect surveys to estimate the seaward extents of Little Tern foraging ranges from several breeding sites. Relevant data from this report includes:
  - Maximum recorded seaward extension (Teesmouth & Cleveland Coast) at circa 5.6km
  - From seven breeding colonies the mean of maximum extents ranged from circa 1.1km to 3.4km
  - The mean of mean maximum seaward extents was estimated as 2.176km (CV = 0.3448)
  - The mean of maximum seaward extents is 2.390km (CV = 0.55)

The NIS is partially informed from dedicated Little Tern surveys were carried out at the known breeding colony at Baltray. It is noted that ten weekly visits were made to the survey area between 30th May and 9th August 2018. Surveys focused on feeding behaviour of terns within the survey area which encompassed the Boyne Estuary and the breakwaters, c. 3km upstream of the estuary mouth, up to 2km north and south of the breakwaters along the beach shoreline, and c. 1km seaward of the beach shoreline.

Figure 10 of the NIS presents an overview of the Baltray area with areas outlined as Little Tern High foraging activity and Little Tern flight activity. This work is constrained and therefore is of limited empirical value for several reasons including:

- that the NIS presents only one year of survey data;

- Little Tern were on site before the surveys started, foraging range may be potentially larger during the early part of the breeding season;
- shore based surveys are more suited to defining the width of a particular Little Tern population's foraging area as opposed to determining the seaward extent of same;
- the extent of the shoreline survey may have been too limited e.g. if a further vantage point to the north of VP was undertaken would more birds have been recorded?; and
- it is not clear if the foraging patterns as estimated by these surveys are already influenced by the ongoing dredging activities.

A significant part of the dredging area lies within relatively close proximity to the tern colony and one or more of the dumping areas may overlap with the distal reaches of the foraging range of the SPA's Little Tern population. The NIS excludes the likelihood that the ongoing maintenance dredging at quite a high/theoretical level. However this conclusion is not backed up by way of a more quantitative assessment and therefore the NIS's conclusion is not robust. Further spatiotemporal information on the terns and their prey base at relevant scales would provide the necessary evidence base to form a more robust conclusion on the likely impacts of this activity on the SPA's breeding tern population.

Reference:

Parsons, M., Lawson, J., Lewis, M., Lawrence, R. & Kuepfer, A. (2015) Quantifying foraging areas of little tern around its breeding colony SPA during chick-rearing. JNCC Report No. 548. Joint Nature Conservation Committee, Peterborough.

Mise le meas,

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Executive Officer

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