



An  
Bord  
Pleanála

# Specialist Report

ABP-312131 R312131\_App5

<b>Development</b>	Greater Dublin Drainage Project consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility.
<b>Type of Application</b>	Private Development – Application.
<b>Topic</b>	<b>Marine Ecology:</b> Assessment of new Harbour Porpoise QIs of Lambay Island and Codling Fault Zone SACs.
<b>Ecologist/Scientist/Engineer</b>	Conor Donnelly BSc. MRes.
<b>Planning Inspector</b>	Alaine Clarke
<b>Date</b>	16 May 2025

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## 1.0 Introduction

### 1.1. Scope of Report to Inspector

- 1.1.1. The Conservation Objectives for Lambay Island SAC (000204) and Codling Fault Zone SAC (003015) were updated in December 2024 and January 2025 respectively to include an additional Qualifying Interest (QI), Harbour Porpoise *Phocoena phocoena* (1351).

- 1.1.2. As the addition of this QI occurred after the submission of the revised Natura Impact Statement (NIS) by the applicant, this QI for these SACs was not assessed in the revised NIS.
- 1.1.3. I have been asked by the Inspector for this case to review the addition of these QIs and implications for the assessment of this project.
- 1.1.4. In my capacity of Inspectorate Marine Ecologist with 25 years professional experience, I have the relevant expertise to provide a professional opinion as to this.
- 1.2. For the purpose of this technical note, I have reviewed a number of documents including the NIS, the revised NIS, EIAR Vol. 3 Part A Chapter 24 Summary of Mitigation Measures (June 2018) and the Outline Construction Environment Management Plan Addendum (CEMP)(October 2023). I have also reviewed the reports prepared by the external marine ecological consultant (Antony Knights) and our internal environmental scientist (Emmet Smyth) and the information on the NPWS website relating to relevant SACs (including Amendment Notifications, Conservation Objectives and Conservation Objective Supporting Documents).

## **2.0 Issues examined and suggestions for consideration**

### **2.1. Assessment of the Harbour Porpoise QI in Rockabill to Dalkey Island SAC**

- 2.1.1. Whilst the newly added Harbour Porpoise QIs for Lambay Island SAC and Codling Fault Zone SAC were not able to be considered in the revised NIS submitted by the applicant, the NIS' prepared by the applicant have assessed the impact of the project on Harbour Porpoise as a QI of the Rockabill to Dalkey Island SAC.
- 2.1.2. The screening assessment undertaken for Rockabill to Dalkey Island SAC in the revised NIS identified a number of potential impact pathways for which a likely significant effect upon the Harbour Porpoise QI could not be excluded, namely underwater noise and disturbance, habitat loss and deterioration in water quality and consequent reduction in prey. These potential impacts were assessed further within the NIS in view of the Conservation Objectives for the QI.
- 2.1.3. With regards the water quality and habitat deterioration pathway, the assessment considered the impact on Harbour Porpoise arising from pollution incidents,

suspended sediment arising from the dredging or piling plume during the construction stage and the discharge plume during outfall operation:

Impact pathway	Summary of assessment in revised NIS
Pollution incidents	Managed through CEMP so risk is low. Measures in place to prevent adverse effects in the event of a pollution incident. With mitigation measures in place no adverse effect on site integrity.
Suspended sediment arising from dredging or piling plume. Construction stage.	Sediment plumes from the discharge of dredge spoil may present habitat disturbance to cetaceans foraging in the area. Direct impact by the plume will be localised (<0.55% of the SAC), short term (< 60 days) and will not cause deterioration in Harbour Porpoise prey resources. No adverse effect on site integrity.
Discharge plume. Operational stage	<p>Siting of the outfall is designed to maximise the dilutions. There is the possibility of increased organic enrichment to the seabed close to the outfall through increased primary productivity, particularly during the summer months, when sea temperature and light conditions are suitable for photosynthesis.</p> <p>Modelling results indicate that the plume created by the effluent discharge will be subject to significant dispersion with a 20 fold dilution achieved within 50m of the diffuser and between a 33 and 100 fold dilution within 500m of the diffuser.</p> <p>The modelling shows that the discharge from the Marine Diffuser will disperse and dissipate over a large area with a low increase above background turbidity levels. No impact to the Harbour Porpoise QI in view of its Conservation Objectives. No adverse effect on site integrity.</p>

- 2.1.4. With regards the noise and underwater disturbance pathway, the assessment considered the impact arising from dredging operations during construction of the

marine outfall pipeline and piling operations during construction at the tunnel/dredge interception pit approximately 2.6km west of the SAC and the fibre optic cable crossing point, approximately 120m west of the SAC.

The revised NIS states that the overall level of dredging noise is expected to be low but is expected to induce some behavioural responses by Harbour Porpoises when in close proximity (<1km). It describes noise impacts from piling as significantly greater. In both cases it is proposed that these impacts will be addressed by mitigation (detailed in the revised NIS and incorporated as Mitigation No. BM6 in EIAR Vol. 3 Part A, Chapter 24 Summary of Mitigation Measures). This mitigation includes, inter alia, the use of marine mammal observers and a high frequency hydrophone system so as to establish an operational safe zone around the site in order to prevent operations starting when sensitive receptors including Harbour Porpoise are within its perimeter. It also includes a ramp-up procedure for piling activities. These procedures are in adherence with the current NPWS Guidelines (NPWS, 2014<sup>1</sup>). Implementation of the measures will ensure Harbour Porpoise are not in close proximity to the dredging and piling activities.

- 2.1.5. With regards the habitat loss pathway, the assessment considered impacts arising during construction and operation. Construction impacts occur along the marine corridor pipeline which extends 1.3km into the SAC and involves works associated with dredging and burial of the pipeline and the installation of the diffuser at the outfall. Operational impacts relate to the presence of the diffuser and discharge from it.

The revised NIS submitted by the applicant concluded that overall, the impact to the foraging area within the SAC will be very small and short-term during construction works (i.e. temporary impact on benthic communities which are expected to recover within <1 year). Following completion, the site will be fully accessible by Harbour Porpoise for foraging, with a possibly slightly enhanced capacity to support small prey species targeted by Harbour Porpoise (due to slightly elevated levels of dissolved inorganic nitrogen (DIN) which may enhance plankton productivity in the area). There will be no impact upon the conservation objectives for this QI through habitat loss.

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<sup>1</sup> NPWS (2014). Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters.

2.1.6. Having reviewed the NIS and the supporting documentation I am satisfied that together this provides adequate information in respect of the baseline conditions, identifies the possible impacts and any potential adverse effects on Harbour Porpoise and uses the best scientific information and knowledge to determine those effects in view of the conservation objectives of the Rockabill to Dalkey Island SAC. I consider the mitigation measures as detailed to be standard, best practice and will be effective in achieving their aims. I agree with the conclusion of the revised NIS that the proposed project will not result in any residual adverse effects on the integrity of the Rockabill to Dalkey Island SAC alone and in-combination and there is no reasonable doubt remaining as to the absence of such effects.

## **2.2. Relevance of assessment to Harbour Porpoise QI of Lambay Island SAC and Codling Fault Zone SAC**

2.2.1. The project outfall occurs within the boundaries of the Rockabill to Dalkey Island SAC whereas Lambay Island SAC and Codling Fault Zone SACs are at some distance from it (c. 7km and c.25km respectively). The Conservation Objectives Supporting Documents for the latter SACs state that no detailed information is available on individual or group movements by Harbour Porpoise within or into/out of the sites however, as a highly mobile species, the Harbour Porpoise QIs of these sites may also use habitats in proximity to the outfall.

2.2.2. The site-specific Conservation Objectives for the Harbour Porpoise QIs are consistent across these three SACs, in that each comprises two attributes with the same measure and target set in each case:

<b>Attribute</b>	<b>Measure</b>	<b>Target</b>
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use. See map.
Disturbance	Level of impact	Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site

2.2.3. In all three SACs, the Conservation Objective for this QI is 'maintain'.

- 2.2.4. Taking the above into account, I consider that the assessment undertaken for Harbour Porpoise as a QI of the Rockabill to Dalkey SAC is applicable to the Harbour Porpoise QIs of the Lambey Island and Codling Fault Zone SACs. Given the highly mobile nature of Harbour Porpoise, the same impact pathways apply and in view of the Conservation Objectives for this QI in each SAC, the same conclusions can be reached with regards no adverse effects on site integrity from this project alone and in combination and that there is no reasonable doubt remaining as to the absence of such effects.

### **2.3. NPWS Guidance on Marine Mammals and Noise**

- 2.3.1. NPWS are currently in the process of updating their Guidance (NPWS, 2014. Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters). Should new guidance be published prior to commencement of construction activities, I would recommend that the applicant review and update the relevant mitigation measures in light of it.

## **3.0 Conclusion**

- 3.1.1. I am satisfied that the scientific information submitted by the applicant, together with the further assessment presented in this report, will allow the Inspector and Board to come to complete, precise and definitive findings as part of the Appropriate Assessment of the implications of the proposed project on the new Harbour Porpoise QIs of the Lambay Island SAC and Codling Fault Zone SAC.
- 3.1.2. I consider that adverse effects on the integrity of the European sites alone and in combination can be excluded and there is no reasonable doubt remaining as to the absence of such effects.

Conor Donnelly  
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16 May 2025