

An  
Coimisiún  
Pleanála

# Specialist Report

R320459\_Appx

<b>Development</b>	10-year permission to construct rock armour and reclamation of foreshore. Construction works include a marina building, gym, bird hide, electrical vessel recharging facility and associated site works at lands adjacent to Cork Harbour Marina, Strand Road, Monkstown, Co. Cork
<b>Type of Application</b>	Normal Planning Appeal
<b>Topic</b>	Marine Ecology: Matters relating to impacts on Cork Harbour SPA, Monkstown Creek pNHA, EIA and otters
<b>Ecologist/Scientist/Engineer</b>	Conor Donnelly, Marine Ecologist, B.Sc. (Hons) M.Res.
<b>Planning Inspector</b>	Mary Crowley
<b>Date</b>	15 January 2026

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## **1.0 Introduction**

### **1.1. Scope of Report to Inspector**

1.1.1. This report to the Planning Inspector and available to the Commission is a written record of my review and examination of the submitted information provided by the applicant, addressing the following questions raised by the Inspector:

#### **Cork Harbour SPA**

- Is there an indirect impact to the Cork Harbour SPA?
- Are the mitigation measures proposed satisfactory?

#### **Monkstown Creek proposed Natural Heritage Area**

- Is the pNHA of County or National Importance?
- Will the development works have a direct or indirect impact on the pNHA
- Are the mitigation measures proposed satisfactory

#### **Environmental Impact Assessment**

- Is the submission of an EIA required?

#### **Otters**

- Can the requirement for an Otter survey and, if necessary, a derogation license for same, be dealt with by way of condition.

In my capacity of Marine Ecologist with over 25 years professional experience, I have the relevant expertise to provide a professional opinion as to the adequacy of the information provided and the assessment undertaken by the applicant in relation to the matters raised by the Inspector.

1.1.2. I have reviewed and examined the following documents including relevant appendices and figures (plans and particulars):

- Revised Appropriate Assessment Screening Report and NIS (April 2024)
- Revised Ecological Impact Assessment (April 2024)

- EIA Screening Report (April 2024)
- Monkstown Marina: Assessment of the Potential Impact of Noise Disturbance to Waterbird Populations (5 March 2024)
- Environmental Noise Assessment (19 April 2024)
- Construction and Environmental Management Plan (30 April 2024)
- Site plans
- County Ecologist Primary Report (12 July 2023) and Review of Applicant's FI Response (2 July 2024)
- Planners Report (4 July 2024)
- Cork Harbour SPA (004030) documents including site synopsis, Conservation Objectives and CO Supporting Document

1.1.3. The Department of Housing, Local Government and Heritage submissions (12 July 2023, 29 May 2024) did not include comments relating to biodiversity or nature conservation.

1.1.4. The documents have been reviewed with respect to the following current best practice guidance including:

- European Commission (2019). Managing Natura 2000 sites – the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
- European Commission (2021). Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. 2021/C 437/01.
- OPR (2021). OPR Practice Note PN01. Appropriate Assessment Screening for Development Management.
- OPR (2021). OPR Practice Note PN02. Environmental Impact Assessment Screening.
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3.

## 2.0 Cork Harbour SPA

### 2.1. Is there an indirect impact to the Cork Harbour SPA?

- 2.1.1. Potential indirect impacts to the Cork Harbour SPA are identified in the revised Appropriate Assessment Screening Report and NIS (April 2024) (hereafter referred to as the 'revised NIS').
- 2.1.2. 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<sup>1</sup>.
- 2.1.3. Whilst the proposed development site is outside the boundary of the SPA at Monkstown Creek the revised NIS shows potential impacts include loss of ex-situ foraging habitat, disturbance during construction and operation, and water quality and hydrological effects. Mitigation is proposed to address these potential impacts including:
- Habitat loss: natural colonisation of rock armour by food species. Introduction of biohuts to provide fish habitat.
  - Disturbance to birds: Restriction on land reclamation and piling activities to the May to September period to avoid wintering birds.
  - Water quality: CEMP with suite of measures including in relation to pollution prevention and use of silt curtains during construction.
  - Hydrological effects: None required due to limited predicted impact on tidal regime and sedimentation.
- 2.1.4. The revised NIS concludes that with the implementation of the mitigation measures identified, no adverse effects on site integrity of Cork Harbour SPA remain.

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<sup>1</sup> Site Synopsis Cork Harbour SPA (004030) <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004030.pdf>

- 2.1.5. The County Ecologist in her review of the applicant's response to the FIs, raises concerns that the removal of intertidal habitat at this location will reduce the availability of habitat which is used as a feeding resource for wetland bird species, including species which are Special Conservation Interests (SCIs) of the Cork Harbour SPA, and that the impact of same has not been fully assessed in the NIS.
- 2.1.6. She also raises concerns with the approach to mitigation of this impact. In particular, that no attempt has been made to evaluate the likely efficacy of the emplacement of rock-armour within the site to offset predicted impacts to wetland and gull species and that no in-combination assessment has been completed in respect of this likely impact.
- 2.1.7. The revised NIS and EclA show that the intertidal area in the vicinity of the proposed development site, is used as foraging habitat by SCIs of the SPA including a range of waders, shelduck and black-headed gull. Whilst present in small numbers, they can represent a relatively significant proportion of the local population at Monkstown Creek for Oystercatcher (e.g. maximum count of 10 birds representing c. 25% of the maximum number recorded for Monkstown Creek during winter counts undertaken in 2021/2022) and Shelduck (maximum count of 12 birds representing c. 36% of the maximum number recorded for Monkstown Creek during winter counts undertaken in 2021/2022).
- 2.1.8. I agree with the County Ecologist that the impact of the proposed mitigation has not been properly evaluated to determine the extent to which natural colonisation of the rock armour will offset the impact of the loss of the existing intertidal habitat at the proposed development site and if it doesn't (or doesn't fully) the availability of sufficient similar quality habitat elsewhere for the SCI to use. For this reason, and given the value of this ex-situ foraging habitat for SCI birds, reasonable scientific doubt remains as to the absence of adverse effects on the integrity of Cork Harbour SPA in view of its conservation objectives.

### **3.0 Monkstown Creek proposed Natural Heritage Area**

#### **3.1. Is the pNHA of County or National Importance?**

- 3.1.1. The NPWS host an archive of Site Synopses for pNHAs on their website. These Synopses describe the site and the reasons for its conservation importance. Synopses are not available for all pNHAs on the NPWS website, and in the case of Monkstown Creek (Site Code 001979) the pNHA listing<sup>2</sup> instead refers to the SPA. This indicates that the importance of the pNHA aligns with the Cork Harbour SPA and relates to the bird species present and its value as a supporting wetland habitat. The Cork County Development Plan 2022-2028<sup>3</sup> describes the features of interest of the pNHA as follows: *“the area is of value because its mudflats provide an important feeding area for waterfowl including Shelduck, Teal, Redshank and Dunlin. The pNHA also supports a Cormorant roosting site. The site forms part of Cork Harbour SPA.”*
- 3.1.2. The revised EclA notes that the boundary of Cork Harbour SPA at Monkstown Creek was originally aligned with the boundary of the Monkstown Creek proposed Natural Heritage Area (pNHA) and included the area of the proposed development site. Following a successful appeal in 2008, the area around the proposed development site was excluded from the SPA on the basis that the habitat did not provide significant feeding grounds for wintering waterfowl. However, the boundary of the pNHA is unchanged such that the proposed development site remains within it.
- 3.1.3. In the revised EclA the applicant’s consultant states that the pNHA does not warrant evaluation as a site of national importance and is assigned a value of county importance. This is on the basis that the area of the pNHA in which the proposed development occurs has been excluded from the SPA.
- 3.1.4. The County Ecologist in her review of the applicant’s FI response, notes that this is contrary to guidance which states that pNHAs should be assigned national importance.
- 3.1.5. I agree with the County Ecologist that the guidance does state NHAs and pNHAs should be treated as of national significance:

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<sup>2</sup> <https://www.npws.ie/protected-sites/nha>

<sup>3</sup> Volume 2. Table 2.3.4

- In the Guidelines for Assessment of Ecological Impacts of National Roads Schemes (NRA, 2008<sup>4</sup>), Table 1 “*Examples of valuation at different geographical scales*” lists “*Site designated or proposed as a Natural Heritage Area (NHA)*” as of national importance.
- CIEEM (2018)<sup>5</sup> states, “*in Ireland, a suite of proposed Natural Heritage Areas (pNHAs) were published on a non-statutory basis in 1995. These should be considered important at the national scale, although they are not currently formally proposed for designation, and are generally given protection through statutory licensing restrictions and planning policies*”.

3.1.6. The CIEEM guidance notes that significant effects should be qualified with reference to an appropriate geographic scale. For example, an NHA is likely to be of national importance. It goes on to state that the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important. It gives an example, where an effect on a species which is on a national list of species of principal importance for biodiversity may not have a significant effect on its national population. Other relevant scales may be regional or county. However, it also notes that even effects at the local scale may be significant, particularly in view of policies for no net loss of biodiversity.

3.1.7. In this case, the applicant has not sufficiently shown why the pNHA should be treated as of less than national importance, i.e. beyond that the area of the pNHA in which the proposed development is located is no longer aligned with the SPA. For example, they have not considered the reasons for its proposal as a pNHA, how might these be affected by the proposed development and the significance of these effects.

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<sup>4</sup> NRA (2008). Guidelines for Assessment of Ecological Impacts of National Roads Schemes. Revision 2, 1<sup>st</sup> June, 2009.

<https://www.tii.ie/media/kzldoawo/guidelines-for-assessment-of-ecological-impacts-of-national-road-schemes.pdf>

<sup>5</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester. <https://cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf>

### **3.2. Will the works have a direct impact upon the pNHA**

3.2.1. Impacts upon the pNHA have been identified in the revised EclA and are similar to those identified for the SPA as referred to in section 2.1.1 above. Unlike the SPA, as the proposed development is within the pNHA, it will have a direct impact upon the site in that it will result in the loss of 1.15ha of intertidal habitat within the pNHA. Other impacts identified include potential disturbance to foraging birds, potential impacts to water quality, tidal regime and sedimentation. Mitigation has been proposed to address these potential impacts as referred to in section 2.1.1 above.

### **3.3. Are the mitigation measures proposed satisfactory?**

3.3.1. In my view, the mitigation measures proposed in relation to disturbance to birds and potential impacts to water quality are satisfactory. With regards hydrological effects, based on the information presented, I would agree that no mitigation is required due to limited predicted impact on tidal regime and sedimentation.

3.3.2. With regards the habitat loss impact, The County Ecologist in her review of the applicant's FI response, states that the applicants have not fully assessed the significance of impact of removing intertidal habitat at this location and have not demonstrated that their proposed compensatory measures will mitigate the impact of same (in the context of impacts upon the SPA and pNHA). In particular, she raises the following concerns:

- The revised EclA contains no evaluation of the quality, condition or ecological value of the intertidal habitat which will be lost and the significance of the impact of loss of this habitat has not been properly assessed.
- Mitigation proposals do not adhere to the principle of achieving ecological equivalence.
- It is suggested that reef habitat will develop around the rock armour over time and it is proposed to install fish nursery habitat (biohuts). No evaluation of the likely efficacy of this proposal has been provided in terms of mitigating the loss of the existing intertidal habitat.

- With regards the biohuts, it is not clear what the proposals are intended to mitigate since no impact to fish nursery is identified in the revised EclA.
- Whilst applicants are relying on development of reef habitat around rock armour to compensate for the impact of removing intertidal habitat no specific design interventions are proposed which would maximise the ecological value of same or which would encourage development of reef habitat, which in itself does not provide direct mitigation for loss of the existing intertidal habitat.

3.4. I agree with all the points made above. For these reasons, in my view the proposed mitigation is not satisfactory.

3.5. As noted by the Planner's Report, the absence of meaningful mitigation to offset the impacts of habitat loss and no biodiversity net gain proposals is contrary to Cork County Development Plan policies BE 15-2(a) and BE 15-6(6).

## **4.0 Environmental Impact Assessment**

### **4.1. Is the submission of an EIA required?**

4.1.1. The EIA screening report prepared by the applicant's consultant, states that EIA is not required for the following reasons:

- The proposed developed does not fall within development classes set out in Part 1 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended).
- Mandatory EIA is not required because the proposed project does not meet the thresholds as prescribed in Schedule 5, Part 2, Class 1(g) of the 2001 Regulations
- Having regard to the nature, extent and the characteristics of the likely impacts identified for the construction and operational phases, it is considered the proposed development will not give rise to a likely significant environmental effect and accordingly a sub-threshold EIA is not required.

4.1.2. A screening determination was carried out by the Planning Authority which concluded that the proposed development would likely have significant effects on the

environment and that the preparation and submission of an environmental impact report is therefore required.

- 4.1.3. The screening determination found there to be a significant impact on biodiversity, in relation to the loss of 1.15ha of intertidal habitat within Monkstown Creek pNHA. It noted that the site has been incorrectly classified as of county importance when it should be classified as of national importance and as a consequence the assessment of likely affects matrix significantly underestimates the extent of the impact of the proposed development on biodiversity. It further notes that explanation was not provided of what reasonable alternatives were considered which would have a lesser effect on the environment; no proposals put forward for biodiversity net gain or quantifiable / meaningful compensatory measures to offset loss of habitat.
- 4.1.4. In my view the basis for the Planning Authority's determination and conclusion reached are valid. I agree that the information and assessment provided by the applicant in relation to these areas is insufficient and consequently there is a real likelihood of significant effects on the environment such that the preparation and submission of an environmental impact report is required.

## **5.0 Otters**

### **5.1. Can the requirement for an Otter survey and, if necessary, a derogation license for same, be dealt with by way of condition?**

- 5.1.1. The County Ecologist in her review of the applicant's FI response raised concerns over a lack of detail in the revised EclA regarding Otter survey, the age of the survey information and the absence of proposed mitigation measures. She considers that a detailed pre-construction survey is required, and a derogation license may be required should a breeding site or resting area be identified.
- 5.1.2. I agree that the EclA provides little detail of the survey, beyond providing when the survey was undertaken and that TII guidance was followed; namely the Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2008) and Guidelines for the Treatment of Otters Prior to the

Construction of National Road Schemes (NRA, 2006). The results of the survey are not clearly set out either, except for a reference to otter spraints “recorded at Carlisle Place to the north of the site in 2022”.

- 5.1.3. The EclA notes that otter are likely to range throughout the area and are considered likely to use the proposed development site for foraging (there is reference to otter being attracted to feed on mussel) and to use the stream emerging from the culvert under Strand Road for washing their pelts.
- 5.1.4. The EclA further notes that the intertidal habitat in the development site is not suitable for providing breeding or resting places for otter as the habitats within the proposed development site consist of intertidal habitat bounded by a seawall.
- 5.1.5. Having reviewed the EclA, plans, photos and aerial imagery of the proposed development site I agree with this assessment. As noted elsewhere in the EclA the intertidal area is relatively narrow (35-140m) and only exposed for a ‘couple of hours either side of low water’. Given the presence of the road adjoining the proposed development site, the vertical seawall and intertidal habitat which is exposed for a short period of time, it is unlikely to support suitable breeding or resting places for otter.
- 5.1.6. In light of the time passed since the survey of the site, a detailed pre-construction survey of the proposed development site and its disturbance zone (the NRA (2006) guidance on the Treatment of Otters has details of this) should be undertaken. This can be dealt with by way of condition.
- 5.1.7. As noted above, given the unsuitability of the habitat within the proposed development site, I consider it unlikely that the survey would identify a holt. However, should a holt be discovered, the applicant will need to agree appropriate mitigation with the Planning Authority in accordance with the NRA 2006 guidance and secure a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011-2021. The derogation would need to be secured in advance of agreement of any required mitigation by the Planning Authority. NPWS

have recently issued Guidance to Applicants on applying for Regulation 54 Derogations<sup>6</sup> which should be referred to.

## 6.0 Other matters

### 6.1. Greenshank, *Tringa nebularia*

- 6.1.1. Greenshank is an SCI of the Cork Harbour SPA but appears to have been omitted from the revised NIS. It over-winters in the site and is present in nationally important numbers<sup>7</sup>.
- 6.1.2. I note that although Greenshank has a Conservation Objective (page 26 of the Cork Harbour SPA Conservation Objectives document<sup>8</sup>), it is not included on the list of Qualifying Interests on page 4 of the document, which might be why it has been overlooked by the applicant's consultants.
- 6.1.3. Table 8 and 9 of the revised NIS show Greenshank have been recorded in Monkstown Creek during I-WeBS high tide peak counts over the winters 2019/2020 to 2022/2023 and from "various low tide count datasets" and also in the proposed development site during low tide surveys of both the site and Monkstown Creek undertaken over the period October 2021 to March 2022 by the applicant's consultants. In both areas numbers observed were relatively low; the I-WeBS counts showed peak counts of 9 birds at high tide and 4 at low tide in Monkstown Creek which corresponds to 6% and 3% respectively of the Cork Harbour peak population (Table 8). The maximum count during the surveys by the applicant were 2 individuals on the proposed development site and 4 individuals in Monkstown Creek (Table 9).

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<sup>6</sup> Applications for Regulation 54 Derogations for Annex IV species. Guidance for Applicants. Version 1.0. 1 July 2025. Department for Housing Local Government and Heritage.

<https://www.npws.ie/sites/default/files/files/Applications-for-Regulation-54-Derogations-for-Annex-IV-species-Guidance-for-Applicants.pdf>

<sup>7</sup> Cork Harbour SPA. Site Synopsis. 21 January 2015. <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004030.pdf>

<sup>8</sup> NPWS (2014) Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004030.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf)

6.1.4. Greenshank was considered in the Monkstown Marina water disturbance assessment prepared by Tom Gittings for the applicant<sup>9</sup>. The assessment was based on a desk review of available information about waterbird occurrence patterns in Monkstown Creek; a literature review of information about waterbird sensitivities to noise disturbance; noise modelling carried out for the proposed development; analyses of mapping and tidal data to assess exposure patterns of intertidal habitat in Monkstown Creek; and calculations of the potential exposure of the Cork Harbour populations of relevant waterbird species to construction noise generated by the proposed development. The report included a species-specific assessment of the potential impact on Greenshank which considered the assumptions made regarding exposure to construction noise and the absence of information on disturbance sensitivity for the species in the Waterbird Disturbance Mitigation Toolkit. It calculated 0.1-0.4% of the Cork Harbour Greenshank population could be exposed to potentially disturbing construction noise levels from the proposed development. It concluded that if this caused complete displacement, it would be a very slight impact, but it is a large overestimate of the likely displacement impact.

6.1.5. Whilst impacts in terms of disturbance are not considered to give rise to adverse effects, the potential impact arising from loss of habitat referred to Section 2.1.6 also applies to Greenshank and as such a reasonable scientific doubt remains as to the absence of adverse effects on the integrity of Cork Harbour SPA in relation to Greenshank.

## **6.2. Marine mammal mitigation**

6.2.1. The County ecologist in her review of the applicant's FI response noted potential disturbance from the proposed works to marine ecological receptors including fish and marine mammals and requested "details of predicted noise levels (both above and below water) which would be generated by the required physical works and an assessment of potential for such noise to give rise to impacts to all relevant key ecological receptors including marine species". I note a noise assessment was

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<sup>9</sup> Monkstown Marina: Assessment of the Potential Impact of Noise Disturbance to Waterbird Populations. Tom Gittings. 5 March 2024.

undertaken by Moloney and Associates<sup>10</sup> which informed an assessment of noise disturbance on waterbirds (Gittings, 2024). However, the focus of the assessment by Moloney & Associates was on airborne noise emissions and there hasn't been an assessment of underwater noise and its impact on marine species.

- 6.2.2. Marine mammals are present in the vicinity. The revised NIS refers to 3 Harbour seal haul-outs around Haulbowline and an observation of a single Grey seal during ecological surveys (not marine mammal-specific surveys) undertaken for the proposed development by the applicant's consultants.
- 6.2.3. The revised EclA notes cetacean activity is not anticipated in the area but episodic occurrences cannot be ruled out. A search of information from the IWDG Casual Cetacean Sightings database (available on the IWDG and also National Biodiversity Data Centre websites) shows Common dolphin and Harbour porpoise sightings in the vicinity of the proposed development area in recent years, including an observation of c.13 Common dolphin at Ringaskiddy on the 9<sup>th</sup> November 2025.
- 6.2.4. Grey and Harbour seals and Harbour Porpoise and Bottlenose dolphin are listed under Annex II of the Habitats Directive and both seal species and all cetaceans are protected species listed under Annex IV of the Habitats Directive and the 5<sup>th</sup> Schedule to the Wildlife Act 1976. In the revised NIS, no impacts upon marine mammal QIs of SACs have been identified. However, impacts on seals and cetaceans as protected species under Annex IV of the Habitats Directive and the Wildlife Acts (Wildlife Act 1976 as amended and Wildlife (Amendment) Act 2000 as amended) are relevant here.
- 6.2.5. The applicant proposes to use mitigation, including screw piling rather than hammer driven piles, restricting activity outside of the wintering bird period and implementation of the measures set out in the Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (NPWS, 2014)(the 'NPWS Guidance')<sup>11</sup>.

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<sup>10</sup> Environmental Noise Assessment for the Proposed Development at Lands Adjacent to Cork Harbour Marina, Strand Road, Monkstown, Co. Cork. Moloney and Associates. 19 April 2024.

<sup>11</sup> [https://www.npws.ie/sites/default/files/general/Underwater%20sound%20guidance\\_Jan%202014.pdf](https://www.npws.ie/sites/default/files/general/Underwater%20sound%20guidance_Jan%202014.pdf)

6.2.6. With regards the NPWS Guidance, it is important to note the following:

- The Guidance states that sound sources with the potential to induce TTS in a receiving marine mammal have the potential to cause both disturbance and injury. This guidance has a statutory basis under Regulation 71 of SI No. 477 of 2011 and refers to the “offence to injure” under the Wildlife Act, 1976, noting that TTS “may constitute such an injury”.
- There have been improvements in the understanding of marine mammals sensitivity to noise since the NPWS Guidance was published. For example, the noise exposure criteria referred to in it, Southall *et al.*, 2007, have been updated by Southall *et al.* 2019<sup>12</sup>. Of relevance here, Harbour porpoise have been assigned to a new Very High Frequency (VHF) hearing group which has significantly lower thresholds for onset of injury (e.g. TTS for impulsive noise is 140 dB re 1  $\mu$ Pa<sup>2</sup>s SEL). It is therefore important that mitigation measures should be applied consistently with latest understanding of marine mammal sensitivity to noise, including Southall *et al.*, 2019.
- NPWS are currently in the process of updating their Guidance and mitigation measures should adhere to the new Guidance when it is published.

6.2.7. In the absence of noise modelling, it is not possible to define the PTS, TTS and behavioural impact zones due to the proposed works to ensure mitigation can be effectively applied. This information may then indicate the need for other mitigation measures beyond what is currently set out in the NPWS Guidance (e.g. noise abatement systems). Consideration should also be given to cumulative effects on marine mammals from underwater noise arising from any other developments in the vicinity of the proposed works.

6.2.8. If there is the potential for deliberate disturbance of Annex IV species, which include all dolphin, whales and porpoise species, this will require a derogation issued under Regulation 54 of the European Communities (Birds and Natural Habitats)

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<sup>12</sup> Southall *et al.* (2019). Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendations for Residual Hearing Effects. *Aquatic Mammals*, 45(2): 125-232.

Regulations 2011-2021. This derogation should be secured in advance of decision-making.

### **6.3. Impacts on intertidal and subtidal habitats in the vicinity of the proposed development area**

- 6.3.1. In its description of the baseline marine environment in section 3.3.1, the EclA refers very briefly to the existence of a large mussel bed on a gravelly section of intertidal shore approximately 200m south of the site boundary at a distance of about 90m from the shore. There does not appear to be any further consideration of this mussel bed as a feature in its own right (e.g. as biogenic reef) and as a supporting habitat for feeding birds which may be impacted by the proposed development. It is also not clear how the location of this bed relates to the boundaries of the SPA or pNHA (i.e. is it within or outside one or both of these sites).
- 6.3.2. The EclA also refers to subtidal habitats in deeper waters (>5m) off the site being dominated by peacock worm *Sabella pavonina* with an associated community of sponges, anemones, crustaceans and fish. The EclA defines this habitat as *Sabella pavonina* with sponges and anemones on infralittoral mixed sediment (SS.SMx.IMx.SpavSpAn) biotope using the JNCC Marine Habitat Classification. This subtidal habitat doesn't seem to have been considered further in the EclA, for example subtidal habitats aren't considered in the 'Section 5. Assessment of Impacts' section of the report and only very briefly referred to in 'Section 6. Mitigation', where it is proposed that "*loss of intertidal and sub-tidal habitat at the site will be partially compensated for by the use of rock armour which will function as a reef-type habitat*".
- 6.3.3. Both of these habitats have the potential to be impacted by sediments released from the proposed works into the water column and transported to surrounding habitats.
- 6.3.4. Information on the sensitivity of marine habitats in the UK and Ireland to a range of pressures, including physical pressures such as smothering by sediment, is available

from MarESA<sup>13</sup>. Assessments are biotope-specific and the EclA does not identify a biotope for the mussel bed, but for the purposes of providing an example of potential sensitivity, the *Mytilus edulis* beds on littoral mixed substrata (LS.LBR.LMus.Myt.Mx) biotope appears to align with the description of the substrate<sup>14</sup>. MarESA assesses both the SS.SMx.IMx.SpavSpAn<sup>15</sup> and LS.LBR.LMus.Myt.Mx biotopes as having medium sensitivity to both light and heavy smothering (where the benchmark threshold for light smothering is deposition of up to 5 cm of fine material added to the seabed in a single discrete event and heavy smothering is deposition of up to 30 cm of fine material added to the seabed in a single discrete event).

- 6.3.5. Whilst these potentially sensitive intertidal and subtidal habitats do not appear to have been adequately assessed in the EclA, mitigation has been proposed to address potential impacts on water quality which will limit sediment dispersion from the proposed works through use of silt curtains. The hydrodynamic study also predicts that once-constructed the project will have a limited impact on tidal regime and sedimentation (small increase in current speeds at southeastern corner of the revetment and local build-up of coarser sand and shell where the proposed revetment meets the existing seawall).

## 7.0 Conclusion

### 7.1. Cork Harbour SPA

- The applicant, in their revised Appropriate Assessment Screening Report and Natura Impact Statement (NIS), considered that the proposed development could result in significant effects on Cork Harbour SPA in view of the conservation objectives of that site and that Appropriate Assessment was required. Their NIS concluded that, with the application of mitigation, the proposed mitigation would not result in adverse effects on the integrity of Cork

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<sup>13</sup> Marine Evidence based Sensitivity Assessment (MarESA)  
[https://www.marlin.ac.uk/sensitivity/sensitivity\\_rationale](https://www.marlin.ac.uk/sensitivity/sensitivity_rationale)

<sup>14</sup> *Mytilus edulis* beds on littoral mixed substrata (LS.LBR.LMus.Myt.Mx)  
<https://www.marlin.ac.uk/habitats/detail/1165>

<sup>15</sup> *Sabella pavonina* with sponges and anemones on infralittoral mixed sediment  
<https://www.marlin.ac.uk/habitats/detail/1088>

Harbour SPA in view of its conservation objectives, either alone or in combination with other plans or projects.

- Contrary to the conclusion reached by the applicant in their revised NIS, I consider that reasonable scientific doubt remains as to the absence of adverse effects on the integrity of Cork Harbour SPA from the proposed development. Consequently, adverse effects on the integrity of Cork Harbour SPA in view of its conservation objectives cannot be excluded.
- The Commission can give consent for proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site. Since adverse effects on the integrity of Cork Harbour SPA cannot be excluded, I recommend refusal.

In my view there are a number of other significant issues with the assessment undertaken by the applicant including:

#### 7.2. Monkstown Creek pNHA

- Guidance states that pNHAs should be treated as of national significance. The applicant has assessed it as having significance at the county level. In my view the applicant has not sufficiently justified why the pNHA should be treated as of less than national importance. This risks significantly underestimating the extent of the impact of the proposed development on the site.
- The proposal will have a direct impact upon Monkstown Creek pNHA and the proposed mitigation is inadequate.
- The absence of meaningful mitigation to offset the impacts of habitat loss and no biodiversity net gain proposals is contrary to Cork County Development Plan policies BE 15-2(a) and BE 15-6(6).

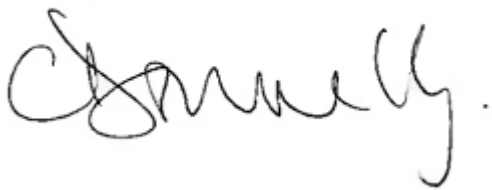
#### 7.3. Marine mammals

- An information gap exists in relation to the applicant's assessment of potential impacts from underwater noise on marine mammals. There hasn't been an assessment of underwater noise and its impact on marine mammals. In the absence of noise modelling, it is not possible to define the PTS, TTS and

behavioural impact zones arising from the proposed works which is required to ensure mitigation can be effectively applied

#### 7.4. Intertidal and subtidal habitats

- Potentially sensitive intertidal and subtidal habitats are identified in the EclA but do not appear to have been adequately assessed.

A handwritten signature in black ink, appearing to read 'Connelly' with a period at the end. The signature is written in a cursive, slightly slanted style.

Conor Donnelly  
Marine Ecologist