



An  
Bord  
Pleanála

# Inspectorate Report - Appropriate Assessment ABP 303247(A)-19

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| <b>Development</b>            | Public realm and flood defence project consisting of remedial works to the existing quay walls, construction of public realm improvement works and flood defence works |
| <b>Location</b>               | Morrisons Quay and Fr. Mathew Quay<br>Cork City  |
| <b>Local Authority</b>        | Cork City Council  |
| <b>Type of Application</b>    | Application for approval made under Section 177(AE) of the Planning and Development Act, 2000 (local authority development requiring appropriate assessment)           |
| <b>Inspectorate Ecologist</b> | Dr Maeve Flynn   |

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## 1.0 Introduction

- 1.1. Cork City Council is seeking approval from An Bord Pleanála for the Morrisons Island Public Realm and Flood Defence Project. The proposed scheme will comprise remedial works to the existing quay walls, construction of public realm improvement works and flood defence works. The potential for significant effects on European sites downstream of the proposed works comprising Cork Harbour Special Protection Area (SPA) and Great Island Channel Special Area of Conservation (SAC) could not be excluded and therefore a Natura Impact Statement (NIS) and was lodged by the Local Authority.
- 1.2. Section 177AE of the Planning and Development act 2000 (as amended) requires that where an Appropriate Assessment is required in respect of development proposed by a local authority, the authority shall prepare an NIS and the development shall not be carried out unless the Board has approved the development with or without modifications. Furthermore, Section 177V of the Planning and Development Act 2000 (as amended) requires that the appropriate assessment shall include a determination by the Board as to whether or not the proposed development would adversely affect the integrity of a European site and the appropriate assessment shall be carried out by the Board before consent is given for the proposed development.
- 1.3. This report details the Appropriate Assessment, comprising a complete assessment of all aspects of the proposed development that could affect the conservation objectives of European sites and presents precise and definitive conclusions as to the implications for the overall integrity of those sites.

## 2.0 Proposed Development

- 2.1. The proposed Morrison's Island Public Realm and Flood Defence Project (Morrison's Island Project) is a standalone project which functions as a public realm scheme as well as providing tidal flood protection for the local area. The flood protection measures for the scheme were initially included in the Lower Lee (Cork City) Drainage Scheme (LLFRS) as exhibited in 2016, however subsequently Cork City Council decided to proceed with Morrison's Island as a standalone public realm project incorporating flood defences. The flood defence measures were included to

provide a cohesive approach to the development of Morrison's Island and reduce disruption to the city during the construction phase.

The proposed works include, site investigation, design layout, regrading of roads, services and utility diversions, new drainage and pumping stations, landscaping and streetscape. The proposed flood defence works comprise the following:

- Significant remedial works to the existing quay walls, including cleaning, repointing and grouting;
- Construction of reinforced concrete backing wall behind existing quay walls;
- Removal of railings and concrete bases and insertion of new 600mm high flood defence walls on top of backing wall;
- Grouting of foundation below RC backing wall;
- Reprofiling of ground levels along both quays;
- Provision of demountable Flood Gates at Trinity Bridge and Parnell Plaza;
- Extension (i.e. raising) of existing limestone steps to 3.5mOD;
- Construction of two pumping stations.

As part of the works required to Trinity Bridge, the Union Quay Boardwalk and Parnell Plaza, instream support works are required. The piling works consist of the supply and installation of approximately 17 no. piles into the river bed.

2.2. The flood defences at Morrison's Island would provide significant flood alleviation benefits up to the circa 1 in 100 year tidal standard. The defended area would remain at risk from extreme fluvial flood events until such a time as the completion of other fluvial protection works (e.g. LLRFS).

2.3. **Accompanying documents:**

- Environmental Report (including Ecological Impact Assessment-Chapter 5 Flora and Fauna)
- Drawings
- Construction Pollution Plan
- NIS
- Response to request for further information (July 2019)

## 3.0 Submissions and Observations

### Prescribed Bodies

- 3.1. The application was circulated widely to public bodies, the full details of which are presented in the Inspectors report. In terms of consultation with bodies relevant to nature conservation and public bodies with responsibility for the environment, Inland Fisheries Ireland (IFI) made a submission regarding best practice in avoiding delirious matter entering the water channel which may affect fish or fish habitat. IFI also requested that they be consulted in advance of the commencement of works within the river channel.

A nature conservation related submission was not received from the Department of Culture Heritage and the Gaeltacht.

### Submissions

- 3.2. A number of public submissions were made related to nature conservation and biodiversity including the following:
- Inadequate ecological surveys
  - Loss of habitats and biodiversity
  - Impacts on protected species including Annex I bird species
  - Impacts on designated sites due to hydrological connections
  - Impacts on water quality due to construction related pollution

## 4.0 Appropriate Assessment

- 4.1. **The requirements of Article 6(3)** as related to appropriate assessment of a project considered under 177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive
- Screening the need for Appropriate Assessment
- The Natura Impact Statement and associated documents

- Appropriate Assessment of implications of the proposed development on each European site

4.2. **Compliance with Articles 6(3) of the EU Habitats Directive:** The Habitats

Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that 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. The competent authority, An Board Pleanála, must be satisfied that the proposal will not adversely affect the integrity of the European site.

4.3. The proposed development *Morrison's Island Public realm and flood defence project* is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).

4.4. **Screening the need for Appropriate Assessment:** The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site. This is considered stage 1 of the appropriate assessment process i.e. *screening*. The screening stage is intended to be a preliminary examination. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect and Appropriate Assessment (AA) carried out.

4.5. The NIS prepared by Ryan Hanley in association with McCarthy Keville O'Sullivan on behalf of Cork City Council includes the screening test for AA (stage 1 AA). The likely zone of influence of the proposed development is considered to be the zone immediately around the construction site and extends to the European sites that are hydrologically linked by the River Lee further downstream. Pathways for potential construction related impacts have been identified which may result in negative impacts on qualifying habitats and species and affect the conservation objectives of Cork Harbour SPA and Great Island Channel SAC in the absence of the application of mitigation measures (See Table 1 below).

- 4.6. Screening for AA concluded that, taking account of the precautionary principle and *in the absence of appropriate mitigation, the proposed development has the potential impact on the qualifying interests of two European Sites and should therefore be subject to Appropriate Assessment.*
- 4.7. Based on my examination of the Screening for AA, NIS and supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, hydrological connection and functional relationship between the proposed works and the European sites and their conservation objectives, I would conclude that the proposed development (alone) may affect two European sites. The *significance* of these effects is uncertain and therefore, I concur with the precautionary approach taken by the applicant that Appropriate Assessment is required to determine if adverse effects on site integrity can be ruled out.
- 4.8. I confirm that the sites *screened in* for Appropriate Assessment are the sites included in the NIS prepared by the project proponent and are as follows;
- Great Island Channel SAC [004219]
  - Cork Harbour SPA [004030]

**Table 1:** Appropriate Assessment Screening summary matrix: European Sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further detailed assessment)

| <b>Site name: Great Island Channel SAC and<br/>Cork Harbour SPA<br/>Conservation Objectives/Qualifying Interest</b> | <b>Is there a possibility of significant effects in view of the conservation objectives of the site</b> |   |                                       |
|---|---|---|---------------------------------------|
|   | <b>Habitat Loss</b>   | <b>Water quality and water dependant habitats</b>   | <b>Disturbance</b>                    |
| <b>Great Island Channel SAC [004219]</b>  |   |   |                                       |
| To maintain the favourable condition of mudflats and sandflats not covered by seawater                              | No<br>Habitats >9kms  | Yes<br>Temporary  | N/A                                   |
| To restore the favourable condition of Atlantic salt meadows ( <i>Glauco Puccinellietalia maritimae</i> )           | downstream  | Construction related pollution and sediment release- could result in deterioration of habitats and smothering of mudflats and impact in-fauna |                                       |
| <b>Cork Harbour SPA [004030]</b>  |   |   |                                       |
| To maintain the favourable conservation condition of the following Special Conservation Interest bird species:      |   |   | Yes- temporary<br><b>Ex-situ only</b> |

| <b>Site name: Great Island Channel SAC and<br/>Cork Harbour SPA<br/>Conservation Objectives/Qualifying Interest</b>   | <b>Is there a possibility of significant effects in view of the conservation objectives of<br/>the site</b> |  |  |
|---|---|--|--|
| Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Oystercatcher, Golden Plover (Annex I), Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit (Annex I), Curlew, Redshank, Black-headed Gull, Common Gull, Lesser Black-backed gull, Common Tern (Annex I) (Breeding) |   |  | Potential disturbance to birds using the River Lee at Morrisons Island e.g. Grey Heron and Cormorant |
| To maintain the favourable conservation condition of wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that use it  | No<br>Wetland habitats<br>>4kms<br>downstream   | Yes<br>Temporary<br>Construction related pollution and sediment release-could result in deterioration of habitats and smothering of mudflats and impact in-fauna |  |

## **The Natura Impact Statement.**

- 4.9. The application is accompanied by a NIS which describes the proposed development, the project site and the surrounding area. The proposed development is located wholly outside of any European site. The NIS considers the two European sites which are within a possible zone of influence of the proposed development. The potential for adverse effects on the conservation objectives of those sites are identified and in-combination effects with other plans and projects examined. The NIS details mitigation measures, largely based on best practice for construction close to watercourses, designed to prevent significant levels of suspended sediments or construction related pollutants entering the Cork Harbour system.
- 4.10. A description of the proposed project, construction methods, general programme and sequencing of works is provided in the NIS. A general description of the baseline ecological conditions at the proposed development site is presented in the NIS.
- 4.11. The NIS was informed by the following studies, surveys and consultations:
- A desk top study.
  - An examination of aerial photography and maps.
  - A multi-disciplinary ecological survey of the proposed development area including habitat survey, otter survey and survey for invasive species and bird survey conducted on various dates between 2014 and November 2018 (see Chapter 5 of EIAR Report). I note these were largely as part of the Lower Lee Flood Relief Scheme which encompassed Morrisons Island and not necessarily specific to the Morrisons Island stand -alone project with the exception of a habitat survey undertaken in November 2018.
- 4.12. The NIS (December 2018) concluded that, subject to the implementation of the recommended mitigation measures, the proposed development alone or in combination with other plans and projects would not result in adverse effects on the site integrity of Cork Harbour SPA or Great Island Channel SAC.
- 4.13. Following a request for further information from the Board, Cork City Council submitted a response document (11<sup>th</sup> July 2019) which provided further detail on ecological survey specific to the application and in combination effects with other plans and projects including the Lower Lee Flood Relief Scheme.

4.14. Having reviewed the NIS, Environmental Report and EIA screening report, further information response document and supporting documentation and submissions, I am satisfied that together these documents provide adequate information in respect of the baseline conditions, uses the best scientific information available on European sites, and clearly identifies the potential for adverse impacts. Details of mitigation measures, including supervision by an Ecologist/Ecological Clerk of Works are provided in Section 8 of the NIS and will be integrated into the construction environment management plan which will be used as an implementation tool by the assigned contractor.

I am satisfied that the information is sufficient to allow for a complete assessment of the proposed development in view of the requirements of Appropriate Assessment and precise and definitive findings can be reached as to the implications of the proposed development on the integrity of Cork Harbour SPA and Great Island SAC.

**4.15. Appropriate Assessment of implications of the proposed development on each European site**

4.16. The following is an objective scientific assessment of the implications of the project on the qualifying interest features and their conservation objectives of Great Island Channel SAC and Cork Harbour SPA using the best available scientific information. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed.

I have relied on the following guidance:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. Dublin
- EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2011) Guidelines on the implementation of the Birds and Habitats Directives in Estuaries and coastal zones

- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC

### **Aspects of the proposed development that are of relevance to the AA**

- 4.17. The proposed development is located wholly outside any European Site and the potential impacts identified are related to the construction phase where in an uncontrolled scenario, the release of sediment and /or construction related pollution emissions such as concrete or hydrocarbons into the River Lee may (temporarily) adversely affect water quality and water dependant habitats locally and downstream within Great Island Channel SAC and Cork Harbour SPA.
- 4.18. The possibility of ex-situ effects (disturbance) on bird species associated with the Cork Harbour SPA has been identified i.e. effects on special conservation interest (SCI) bird species occurring outside of the SPA boundaries. Birds such as Grey Heron, Cormorant, Black-headed Gull are regularly found foraging in the River Lee, and occasionally use river channel at the Morrisons Island area. Increased disturbance and noise effects may prevent birds from utilising this area during the construction phase.
- 4.19. The conservation objectives, targets and attributes as relevant to the identified potential significant effects are examined and assessed in relation to the aspects of the project (alone and in combination with other plans and projects). Mitigation measures are included, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.
- 4.20. Key issues that arose through consultation and my examination and assessment of the NIS and further information request are expanded upon in the text below.

### **Water quality and water dependant habitats**

#### **4.21. Great Island Channel SAC**

Stretching from Little Island to Middleton, with its southern boundary being framed by Great Island, Great Island Channel SAC is a minimum distance of 9.4 km via the River Lee from the proposed works. The Conservation Objectives for the SAC are as follows:

To maintain the favourable conservation condition of **mudflats and sandflats not covered by seawater at low tide** in the Great Island Channel SAC, as defined by the following:

- Habitat area (723 ha) is stable or increasing subject to natural processes
- Conserve the community complex comprised of mixed sediment to sandy mud with polychaetes and oligochaetes in line with mapped distribution (NPWS 2014).

To restore the favourable conservation condition of **Atlantic Salt Meadows (*Glauco-Puccinellietalia maritimae*)** in Great Island Channel SAC as defined by the following (summary):

- Habitat area is stable or increasing subject to natural processes (for sub sites as mapped)
- Physical structure in terms of sediment supply, creek and plans and flooding regime is maintained subject to natural processes
- Vegetation structure in terms of zonation, height and cover is maintained
- Vegetation composition is maintained in terms of typical species and sub communities and no significant expansion of common cordgrass (*Spartina anglica*)

4.22. There are significant overlaps between the SAC and *wetlands* habitats designated for the **Cork Harbour SPA**, the extent of which is greater than that of the SAC. The Conservation Objective for Wetland Habitat for Cork Harbour SPA is as follows:

- The permanent area is stable and not significantly less than the area of 2587ha (other than that occurring from natural patterns of variation)

#### **Potential adverse effects**

4.23. **No direct adverse effects**

Due to the confined nature of the works and the distance of the proposed development from the conservation interest habitats of the SAC, and SPA there will be no impact on the conservation objectives related to *habitat area*.

#### 4.24. Indirect adverse effects

The NIS identifies the possibility of indirect impacts related to temporary increased sediment loading that may occur through the construction works proposed for the quay walls, installation of piles and instream works and also any construction related pollution emissions which may adversely affect the Conservation Objectives of the SAC. Concrete and grouting substances can adversely affect the pH of aquatic habitats leading to significant effects if released into the aquatic environment.

These potential adverse effects also apply the qualifying interest feature of *wetlands* as it applies to the Cork Harbour SPA.

- 4.25. The NIS does not go into detail on how these potential adverse effects could affect the targets and attributes set for the Conservation Objectives, rather after an examination of possible in-combination effects, it goes directly to the application of mitigation measures to avoid the impact in the first instance.
- 4.26. Taking into account the proposed works, the only attribute that I consider could potentially be affected would be the *community complex comprised of mixed sediment to sandy mud with polychaetes and oligochaetes* whereby any significant siltation event could smother the muds, affecting the macroinvertebrate in-fauna or whereby a significant pollution event would adversely affect the macroinvertebrates. Such an impact could also affect the mudflats within the SPA boundary, thereby affecting prey availability for wintering waterbirds.
- 4.27. Based on the scale of the proposed development, even in the absence of mitigation, I consider that any such incident would have to be substantial to generate a significant effect given the capacity of the River Lee estuary to dilute and disperse sediments.
- 4.28. Given the known (and potential) distribution of Atlantic Salt Meadows in Great Island SAC as mapped by NPWS (2014), I consider it highly unlikely that the proposed development could affect the targets and attributes set for the conservation objectives of this habitat even in the absence of mitigation.
- 4.29. The mitigation measures prescribed are standard best practice for the prevention of siltation and pollution of watercourses during construction and include the following:

- Siltation management through the use of siltation traps, protective netting over the watercourse, The discharge of suspended solids will not exceed 25mg/l.
- Phased concrete pour, sealing of joints and application of paints, curing agents to be undertaken in the dry
- Storage of oils, fuels, chemicals etc. will be located in a bunded area at least 10m from river bank, spill kits available, drip trays for refuelling
- Agreement of in-stream works method statements with Inland Fisheries Ireland
- A project ecologist/ ecological clerk of works will be appointed for the duration of works to ensure compliance of measures, provide toolbox talks, determine water quality baseline and monitor discharged water for suspended solid levels.

4.30. There is no uncertainty as to the effectiveness of these standard measures provided that they are implemented correctly and supervised. The implementation of these measures will be facilitated by the integration of the Construction Pollution Control Plan and Dust Minimisation Plan into the method statement of the eventual contractor.

4.31. **In-combination effects** with other plans and projects are examined in the NIS and further clarification on the relationship between the proposed works at Morrisons Island and the wider LLFRS is provided in the further information submitted. Possible in-combination effects with other drainage schemes, including the Glashaboy (Glanmire / Sallybrook) Drainage Scheme and the River Bride (Blackpool) Certified Drainage Scheme are also examined in addition to construction works relating to other projects recently developed and permitted development in the area. Given the lack of any significant residual effects from the proposed scheme (after the application of mitigation measures), the timing and phasing of other projects, the possibility of in-combination effects that could adversely affect the conservation objectives of Great Island Channel SAC is ruled out.

4.32. Concern was raised in submissions regarding the extent of possible sedimentation/ pollution arising from the proposed scheme. Reference was made to a report prepared for the Port of Cork which related to a test regime and monitoring for new a

maintenance dredging method comprised of water injection dredging in the River Lee Estuary. This report was prepared by Van Oord Marine Ingenuity (May 2012) and included a fluorescence particle tracer study, water sampling, hydrodynamic modelling of sediment dispersion. I have attached this report to the file for the Board.

- 4.33. The fluorescence particle tracer study showed that coloured particles mixed with dredged sediments dispersed rapidly throughout the estuary due to tidal current with the main depositional areas unsurprisingly being mudflats around Lough Mahon, Foaty channel and Monkstown creek. The study also showed that the natural variation in mudflats was greater than that which could be accounted for by the impacts of water injection dredging on sediments.
- 4.34. Dredging of the navigational channel of the River Lee Estuary would result in much greater levels of sediment disturbance, turbidity and settlement than the relatively minor works proposed at Morrisons Island. My review of the particle tracing study confirms the precautionary approach taken in the NIS, physically illustrating the likely movements and deposition of any suspended solids and potentially polluting particles into mudflat habitats of the SAC and SPA wetland habitats. However, the Van Oord report also showed that the dilution capacity of the estuary is such that any such deposition levels (millimetres in the case of dredging) or polluting potential would likely be very low. Depending on the prevailing tidal conditions, any released suspended solids can be dispersed and diluted over several square kilometres within a matter of hours.
- 4.35. I am satisfied that based on the scientific information available for this assessment, the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of Great Island Channel SAC in light of its conservation objectives for both mudflats and sandflats not covered by seawater at low tide and Atlantic salt meadows, and that there is no doubt as to the absence of such effects. Similarly, the proposed development would not adversely affect the conservation objective related to *wetlands* for Cork Harbour SPA.

#### **Disturbance of Special Conservation Interest bird species**

- 4.36. **Cork Harbour SPA** is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top ten sites in

the country. Of particular note is that the site supports internationally important populations of Black-tailed Godwit and Redshank, while a further 20 non-breeding waterbird species occur in numbers of national importance. The Annex I species Common Tern has a breeding population at the site. The Conservation Objectives for special conservation interest (SCI) bird species are as follows:

- To maintain the favourable conservation condition of the following waterbirds; Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Oystercatcher, Golden Plover (Annex I), Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit (Annex I), Curlew, Redshank, Black-headed Gull, Common Gull and Lesser Black-backed gull as defined by the following: the long term population trend is stable or increasing and no significant decrease in range, timing or intensity of use of areas by birds other than that occurring from natural patterns of variation.
- To maintain the favourable conservation of breeding Little Tern as defined by the following (summary): no significant decline in the breeding population abundance, productivity, or distribution of breeding colonies. No significant decline in prey biomass, no barriers to connectivity. Human activities should occur at levels that do not adversely affect the breeding common tern population.

4.37. Given the distance between the proposed development area and the nearest point to the SPA (4.7km downstream), there is no possibility of any direct disturbance of concentrations of birds which could affect the range, timing or intensity of use of areas within the SPA.

4.38. The conservation objectives supporting document (NPWS, 2014) notes that several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it. The reliance on these habitats varies from species to species and from site to site. Significant habitat changes or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers.

- 4.39. Bird surveys undertaken to inform the proposed development were limited to breeding birds, and not specific to wintering birds that are SCIs for the SPA. The area of river channel included in the Morrisons Island development does not provide habitat that would support any concentrations of foraging or roosting SCI bird species. Therefore, the approach to survey is considered proportionate to the development. Individual birds including Grey Heron and Cormorant and various gull species are likely to be present occasionally. However, they would occur in low numbers at this location and any temporary disturbance from the area due to construction activities would not have any adverse effect on the SPA population in view of the conservation objectives.
- 4.40. There is no possibility of disturbance of breeding terns as they breed on artificial structures further downstream within the SPA and largely forage in marine waters.
- 4.41. Therefore, based on the size, scale and nature of the development, and the lack of any significant numbers of SCI bird species that could be present at any time at this location, there is no possibility of adverse effects on the population or distribution of any SCI of Cork Harbour SPA due to the temporary construction activities proposed at Morrisons Island alone or in combination with any other plans or projects.

## **5.0 Appropriate Assessment Conclusions**

The Development has been considered in light of the assessment requirements of Sections 177AE and 177V of the Planning and Development Act 2000 as amended.

Having carried out screening for appropriate assessment of the project, it was concluded that the proposed Morrisons Island Public realm and Flood Relief development may have a significant effect on Great Island SAC and Cork Harbour SPA in the absence of the application of best practice mitigation measures. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

- 5.1. Following Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of Cork Harbour SPA or Great Island SAC in view of the

sites Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.

This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project alone and in combination with other projects, proposed mitigation measures and the effectiveness of those measures.
- Clear precise and definitive conclusions regarding the lack of adverse effects on the integrity of Great Island Channel SAC in light of the conservation objectives for mudflats and sandflats not covered by seawater at low tide and Atlantic salt meadows.
- Clear precise and definitive conclusions regarding the lack of adverse effects on the population or distribution of any Special Conservation Interest bird species of Cork Harbour SPA.



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