

**NATURA IMPACT STATEMENT
& APPROPRIATE ASSESSMENT SCREENING
FOR THE DEVELOPMENT OF A FLOATING PONTOON MARINA AT
WHITE POINT, COBH, CO. CORK**



Prepared By

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Environmental Services**

**For
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On behalf of Cove Sailing Club

1st July 2010

Job No. 10C03

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1 INTRODUCTION

1.1 Background

Moore Group was commissioned by Cove Sailing Club in association with Cronin Millar Consulting Engineers to compile a Natura Impact Statement (NIS) and Appropriate Assessment Screening Report for the development of a floating pontoon marina at White Point, Cobh, Co. Cork, see Figure 1. The report was compiled by Ger O'Donohoe of Moore Group. Ger has over 17 years experience in environmental impact assessment and has completed over 20 Appropriate Assessment Screening Reports in both terrestrial and marine habitats.

The site of the proposed development is located in Cork Harbour and is located within 15km of the following Natura 2000 sites:

- Great Island Channel SAC (Site Code 001058)
- Cork Harbour SPA (Site Code 004030)

This Natura Impact Statement has been compiled in order to aid the Planning Authority in the Appropriate Assessment process and the requirement for Appropriate Assessment Screening. An Appropriate Assessment Screening Report is presented in Appendix I.

The requirements for Appropriate Assessment derive directly from Article 6(3). Appropriate Assessment is an impact assessment process that fits within the decision-making framework and tests of Articles 6(3) and 6(4) of the Habitats Directive and it comprises two main elements.

Firstly a Natura Impact Statement (NIS) must be prepared. This comprises a comprehensive ecological impact assessment of a plan or project; it examines the direct and indirect impacts that the plan or project might have on its own or in combination with other plans and projects, on one or more Natura 2000 sites in view of the sites' conservation objectives.

Secondly, the competent authority completes the Appropriate Assessment, based on the Natura Impact Statement and any other information it may consider necessary. The AA process encompasses all of the processes covered by Article 6(3) of the Habitats Directive, i.e. the screening process, the NIS, the AA by the competent authority, and the record of decisions made by the competent authority at each stage of

the process, up to the point at which Article 6(4) may come into play following a determination that a plan or project may adversely affect the integrity of a Natura 2000 site.

This Natura Impact Statement is accompanied by the relevant Appropriate Assessment Screening Report.



Figure 1. Showing the location of the development site at White Point, Cobh, Co. Cork in red.

2 METHODOLOGY

2.1 Method of Assessment

The assessment was carried out in three stages, firstly through desktop assessment to determine existing records in relation to habitats and species present in the study area. This included research on the NPWS metadata website and a literature review of published information on flora and fauna occurring in the development area.

The second phase of the assessment involved a site visit to establish the existing environment in the footprint of the proposed development. Subtidal habitats were surveyed on the 14th June 2010 using SCUBA. Weather conditions on the day were fine, however, the silty nature of the channel and poor visibility made underwater photography difficult. The general area in the footprint of the proposed marina was surveyed to cover the subtidal environment between the shore and the outer line of the proposed pontoon. A photographic record was made of the fauna and seaweed encountered on each dive. The survey was carried out at low water during springtides and was found to be fully subtidal.

Marine species nomenclature follows that of Howson & Picton (eds) 1997. Seaweed nomenclature follows that of Arnold & Guiry, 2006. Marine biotypes are described according to the Marine Habitat Classification for Britain and Ireland JNCC (internet version 04.05).

The final part of the assessment involves an evaluation of the proposed development area and determination of the potential impacts on the flora and fauna of the area. This part of the assessment forms the basis for Appropriate Assessment Screening and is based on the following guidelines and publications:

- Assessment of plans and projects significantly affecting Natura 2000 sites (EC, 2002)
- Managing Natura 2000 Sites (EC, 2000)
- Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC (EC, 2007)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DEHLG, December 2009)
- EPA Advice Notes on Current Practice (EPA, 2003)

2.2 Scoping & Consultation

The Development Applications Unit of the DEHLG was formally scoped.

2.3 Proposed Development

Cove Sailing Club proposes to develop a 74 berth marina at White Point, Cobh, Co. Cork (see Figure 2). The marina will be an all tide access marina in Cork Harbour with all marina components comprising floating pontoons. Access to the marina will be via a fixed platform and gangway extending from the quay wall at the 'five foot way'. The marina will be restrained in position with a chain and anchor system. Dredging at the site is not envisaged.



Figure 2. Site location showing the layout of the proposed development at White Point.

3 EXISTING ENVIRONMENT

3.1.1 Subtidal Habitats

The subtidal environment in the vicinity of the footprint of the proposed floating pontoon marina is comprised of fine sand with high silt mud content. The dive surveys extended from 5m to 15m in depth moving from the shore toward the channel. The existing scattered moorings provide substrates for the attachment of mussels *Mytilus edulis*. There were patches of mussel shell on the seafloor around existing moorings (Photo 1). Common brittlestars *Ophiothrix fragilis* were numerous around the bases of these moorings. In general, the seafloor was comprised of very fine sand/mud with a high silt content and flora and fauna were sparse (Photo 2). The anemone *Sagartia troglodytes* were occasional and Plumose anemones *Metridium senile* were frequent on hard substrates (Photos 3). The only mobile fauna encountered were velvet swimming crabs *Liocarcinus depurator*.

The main biotope type present is SS.SMu.IFiMu - Infralittoral fine mud which corresponds to the Fossitt Classification 'Infralittoral muds SS3' and may be linked to the annexed habitats 'estuaries (1130)'.



Photo 1. Showing the seafloor in the vicinity of an existing mooring at White Point.



Photo 2. Showing the seafloor at 15m at White Point.

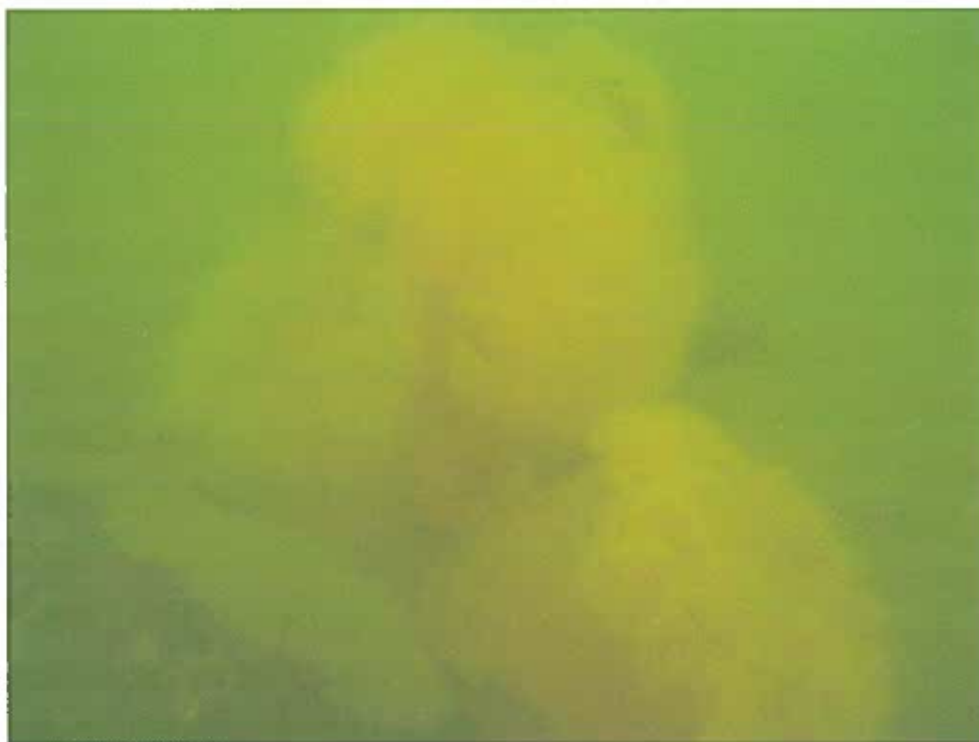


Photo 3. *Metridium senile* on hard substrates at White Point.

3.1.2 Marine Mammals

Protected fauna occasionally seen in the Harbour include the otter (*Lutra lutra*), the grey seal (*Halichoerus grypus*) and the common seal (*Phoca vitulina*). Cetaceans such as common dolphins (*Delphinus delphina*) and bottlenose dolphins (*Tursiops truncatus*) are also regular visitors to the Harbour. In summer 2001, the arrival of a pod of three Orca whales (*Orcinus orca*) in Cork Harbour attracted attention from local spectators and national media.

3.1.3 Designated Sites

Cork Harbour is of major international importance for waders (20,000) and wildfowl (5,000), particularly winter migrants, which are supported by its extensive mudflat areas around Lough Mahon, the Douglas Estuary and the North Channel, Lough Beg, Saleen, Rostellan and Whitegate. As a consequence, Cork Harbour is designated as both a Ramsar wetland site of international importance and a Special Protection Area for birds.

Other designations within the Harbour protect important habitats of salt marsh, reedbed and intertidal mudflat. They include candidate Special Areas of Conservation (Great Island Channel) and proposed Natural Heritage Areas (Douglas Estuary, Great Island Channel, Lough Beg, Rostellan Lough/Aghada Shore/Poulnabibe inlet, Whitegate Bay, Cuskinny Marsh).

The marine environment on which the proposed development is located is not designated for conservation. However, it is adjacent to the Cork Harbour SPA (Site Code 004030) and Great Island Channel SAC (Site Code 001058), see Figures 3 and 4 below.

The SAC area is located approximately 4km to the north and the nearest designated areas Id Monkstown Creek located approximately 1.5km to the west.

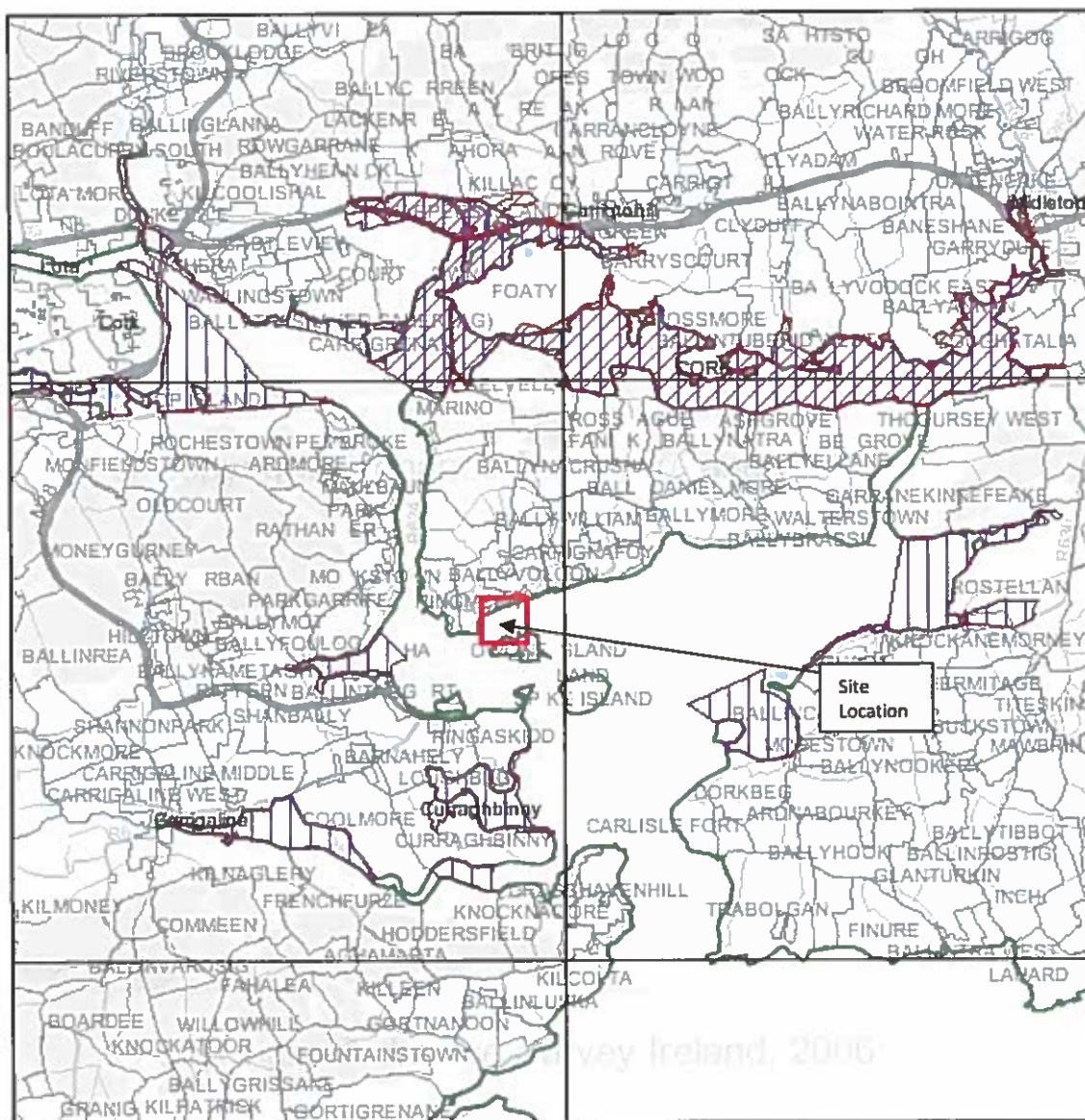


Figure 3. Showing the Natura 2000 sites in the vicinity of the proposed development at White Point.

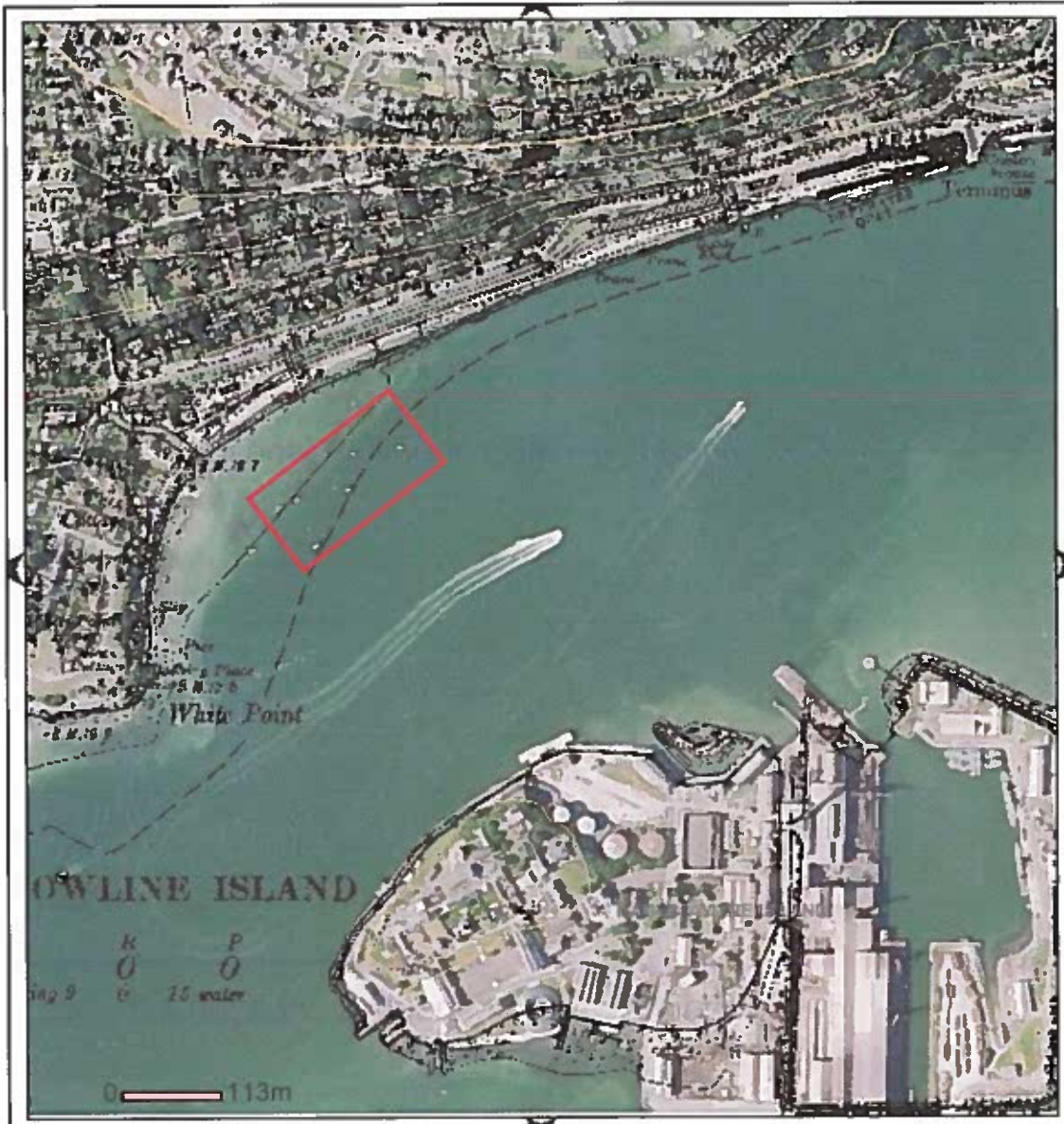


Figure 4. Showing the proposed development area (in red).

4 PREDICTED IMPACTS

4.1 Site Evaluation

The site is comprised of an area of subtidal fine muds with a low species diversity. Boats have traditionally been moored here for years and there are existing moorings in the area. The area is adjacent to a busy shipping channel and there are no rare or protected species under the footprint of the proposed development.

4.2 Predicted Impacts

The predicted impacts are considered on the marine environment with regard to undesignated habitats under the footprint of the proposed development and the adjacent Natura 2000 sites, particularly the Cork Harbour SPA at Monkstown Creek.

Predicted impacts in this regard are presented in conjunction with information provided by the Consulting Engineers, Cronin Millar Consulting Engineers.

The proposed floating pontoon would be held in place using a point anchor system. Dredging at the site will not be required. Overall, there would be no significant impact on marine flora and fauna.

There would be no significant impact on the adjacent Cork Harbour SPA and Great Island Channel SAC, see Section 5 below.

5 NATURA IMPACT STATEMENT

Article 6(3) requires that any plan or project that is not directly connected with or necessary to the management of the Natura 2000 site concerned but is likely to have a significant effect on it, on its own or in combination with other plans and projects, is to be authorised only if it will not adversely affect the integrity of that site. Screening for Appropriate Assessment and, if screening indicates the need, Appropriate Assessment itself, must be carried out and the assessment and conclusions recorded to ensure that existing and future plans or projects are not authorised if they are likely to adversely affect the integrity of a site. These safeguards are designed to ensure the conservation of Natura 2000 sites.

Appropriate Assessment is defined as: 'An assessment carried out under Article 6(3) of the Habitats Directive of the implications of a plan or project, either individually or in combination with other plans and projects, on a Natura 2000 site in view of the site's conservation objectives'.

In order for a Planning Authority to apply the Appropriate Assessment process it must be presented with a Nature Impact Statement which addresses the Qualifying Interests and Conservation Objectives of the Natura 2000 sites in question and how the plan may affect these objectives. The site synopses of the relevant Natura 2000 sites are presented in Appendix B of the Appropriate Assessment Screening Report and the following section presents the Qualifying Interests & Conservation Objectives of the adjacent Natura 2000 sites.

5.1 Qualifying Interests & Conservation Objectives

The Qualifying Interests and Conservation Objectives for the Great Island Channel SAC are outlined in the Draft Conservation Objectives as follows:

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status areas designated as candidate Special Areas of Conservation. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites. According to the EU Habitats Directive, favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself, and
- the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective 1:

To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide; Atlantic salt meadows (*Glauco-Puccinellietalia maritima*).

Objective 2:

To maintain the extent, species richness and biodiversity of the entire site.

Objective 3:

To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The Qualifying Interests and Conservation Objectives for the Cork Harbour SPA are outlined as follows:

Proposed Special Conservation Interests for Cork Harbour SPA (4030)

Site is selected for:

Cormorant, Shelduck, Oystercatcher, Golden Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Common Tern, 20,000 wintering waterbirds,

Additional Special Conservation Interests:

Little Grebe, Great Crested Grebe, Grey Heron, Wigeon, Teal, Pintail

Shoveler, Red-breasted Merganser, Grey Plover, Black-headed Gull, Common Gull, Lesser, Black-backed Gull, Wetland & Waterbirds.

Main conservation objective:

To maintain the special conservation interests for this SPA at favourable conservation status: Cormorant, Shelduck, Oystercatcher, Golden Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Common Tern, 20,000 wintering waterbirds, Little Grebe, Great Crested Grebe, Grey Heron, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Grey Plover, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Wetland & Waterbirds.

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Information about the plan or project	Y/N
Full characteristics of the project or plan which may affect the site	Y
The total range or area the plan will cover	Y
Size and other specifications of the project	Y
The characteristics of existing, proposed or other approved projects or plans which may cause interactive or cumulative impacts with the project being assessed and which may affect the site	Y
Planned or contemplated nature conservation initiatives likely to affect the status of the site in the future	Y
The relationship (e.g. key distances etc.) between the project or plan and the Natura 2000 site	Y
The information requirements (e.g. EIA/SEA) of the authorisation body or agency	Y
Information about the Natura 2000 site Y/N*	Y/N
The reasons for the designation of the Natura 2000 site.	Y
The conservation objectives/qualifying interests of the site and the factors that contributes to the conservation value of the site.	Y
The conservation status of the site (favourable or otherwise)	Y
The existing baseline condition of the site	Y
The key attributes of any Annex I habitats or Annex II species on the site	Y
The physical and chemical composition of the site	Y
The dynamics of the habitats, species and their ecology	Y
Those aspects of the site that is sensitive to change	Y
The key structural and functional relationships that create and maintain the site's integrity	Y
The seasonal influences on the key Annex I habitats or Annex II species on the site	Y
Other conservation issues relevant to the site, including likely future natural changes taking place	Y

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Conservation objectives: does the project or plan have the potential to:	Y/N
Cause delays in progress towards achieving the conservation objectives of the site?	N
Interrupt progress towards achieving the conservation objectives of the site?	N
Disrupt those factors that help to maintain the favourable conditions of the site?	N
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?	N
Other objectives: does the project or plan have the potential to:	Y/N
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?	N
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	N
Interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	N
Reduce the area of key habitats?	N
Reduce the population of key species?	N
Change the balance between key species?	N
Reduce diversity of the site?	N
Result in disturbance that could affect population size or density or the balance between key species?	N
Result in fragmentation?	N
Result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, etc.)?	N

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Given the relatively small footprint area of the proposed development and the proposed use of point anchoring, there would be no significant impact on the adjacent Cork Harbour SPA or Great Island Channel SAC.

An Appropriate Assessment Screening Report is included in Appendix I below.

6 REFERENCES

Arnold, H.R., Hardy, F.G. & M.D. Guiry. 2006. A check-list and atlas of the seaweeds of Britain and Ireland, 435 pp.

DEHLG. 2009. Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment Heritage & Local Government, December 2009.

EPA. 2003. Advice Notes on Current Practice in the preparation of Environmental Impact Statements. EPA, Wexford.

European Council. 2002. Assessment of plans and projects significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Luxembourg: Office for Official Publications of the European Communities.

Howson, C.M. & Picton, B.E.(eds). 1997. The species directory of the marine fauna and flora of the British Isles and surrounding seas. Ulster Museum and the Marine Conservation Society, Belfast and Ross-on-Wye.

Legislation Sources

Government of Ireland, 2000, *Wildlife (Amendment) Act, 2000*, Stationery Office, Dublin.

Birds Directive (79/409/EEC) Council Directive of 2 April 1979 on the conservation of wild birds.

Habitats Directive (92/43/EEC) Council Directive of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Web Sources

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APPENDIX I – APPROPRIATE ASSESSMENT SCREENING

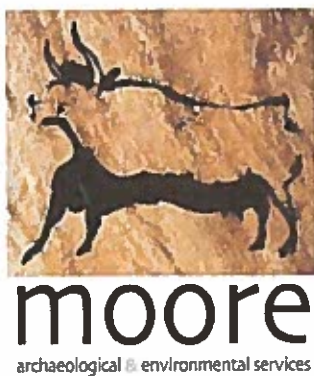
Proposed Floating Pontoon Marina at White Point, Cobh, Co. Cork.

Screening Assessment as required under

Article 6(3) of the Habitats Directive

(Council Directive 92/43/EEC)

1st July 2010



1. Introduction

The Habitats Directive (Council Directive 92/43/EEC) requires that all plans and projects must be initially screened for potential impact on Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). This process aims to establish whether a full Appropriate Assessment as required by Article 6 of the Directive is required in any particular case.

This report presents a screening assessment for a proposed floating pontoon marina at White Point, Cobh, Co. Cork.

It has been prepared by Moore Group Environmental Services on behalf of Cork Co. Co.

1.1 Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992) on the conservation of natural habitats and of wild fauna and flora is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context. The Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention. Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs. Article 6(3) and 6(4) of the Habitats Directive sets out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects. Article 6(3) of the Habitats Directive requires an appropriate assessment of any plan or project likely to have a significant effect on an SAC. The recent ECJ ruling against Ireland in Case 418/04 EC Commission V Ireland found that Ireland had incorrectly transposed the Birds Directive as well as its implementation of relevant articles of the Habitats Directive by not providing explicitly for appropriate assessment of land use plans, (as opposed to projects), in the European Communities (Natural Habitats) Regulations, 1997. The effect of the judgment is that there is now a requirement for screening and possible appropriate assessment of plans and projects that may negatively impact areas designated as Natura 2000 sites (SACs and SPAs).

1.2 Screening for Appropriate Assessment

Screening has been undertaken in fulfillment of the requirements of the Habitats Directive and taking into account the Department of the Environment, Heritage and Local Government's Guidance on Appropriate Assessment.

2. Methodology

Screening has been undertaken in accordance with the European Commission's Guidance on Appropriate Assessment (European Commission, 2001) which comprises the following steps:

1. Description of the Plan.
2. Identification of Natura 2000 sites potentially affected by the Plan.
3. Identification and description of individual and cumulative impacts likely to result from the Plan.
4. Assessment of the significance of the impacts identified on the conservation objectives of the site(s).

5. Exclusion of sites where it can be objectively concluded that there will be no significant impacts on conservation objectives.

3. Description of the Proposed Project

The proposed development entails the development of a 74 berth marina at White Point, Cobh, Co. Cork. The marina will be an all tide access marina in Cork Harbour with all marina components comprising floating pontoons. Access to the marina will be via a fixed platform and gangway extending from the quay wall at the 'five foot way'. The marina will be restrained in position with a chain and anchor system. Dredging at the site is not envisaged.

4. Identification of Natura 2000 sites

The marine environment in which the proposed development is located is not designated, however, the proposed development is located adjacent to the Cork Harbour SPA (Site Code 004030) and Great Island Channel SAC (Site Code 001058).

Further details on these sites are included in the National Parks and Wildlife Service's Site Synopses in Appendix B.

4.1 Cork Harbour SPA (Site Code 004030)

Cork Harbour is a large, sheltered bay system, with several river estuaries – principally those of the Rivers Lee, Douglas and Owenacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Lough Beg, Whitegate Bay and the Rostellan inlet.

Cork Harbour has is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

4.2 Great Island Channel SAC (Site Code 001058)

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

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

5. Identification of potential impacts to Natura 2000 sites & assessment of Significance

The potential impacts of the proposed development would entail the loss of flora and fauna under the footprint of the floating pontoon marina.

6. Conclusion

This screening process in accordance with Article 6(3) of the Habitats Directive was required for the proposed development.

Given the relatively small footprint area of the proposed development and the proposed use of point anchoring, there would be no significant impact on the adjacent Cork Harbour SPA or Great Island Channel SAC.

A finding of no significant effects report is presented in Appendix C in accordance with the EU Commission's methodological guidance (European Commission, 2001).

7. References

European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

Appendix A

Article 6(3) and (4) of the Habitats Directive

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

Appendix B

National Parks and Wildlife Service Site Synopses

SITE SYNOPSIS**SITE NAME: CORK HARBOUR SPA****SITE CODE: 004030**

Cork Harbour is a large, sheltered bay system, with several river estuaries – principally those of the Rivers Lee, Douglas and Owenacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Lough Beg, Whitegate Bay and the Rostellan inlet.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva lactuca* and *Enteromorpha* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Salt marsh species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Laxflowered Sea-lavender (*Limonium humile*) and Sea Arrowgrass (*Triglochin maritima*). Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre. Rostellan lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top five sites in the country. The five-year average annual core count for the entire harbour complex was 34,661 for the period 1996/97-2000/01. Of particular note is that the site supports an internationally important population of Redshank (1,614) – all figures given are average winter means for the 5 winters 1995/96-1999/00. A further 15 species have populations of national importance, as follows: Great Crested Grebe (218), Cormorant (620), Shelduck (1,426), Wigeon (1,750), Gadwall (15), Teal (807), Pintail (84), Shoveler (135), Red-breasted Merganser (90), Oystercatcher (791), Lapwing (3,614), Dunlin (4,936), Black-tailed Godwit (412), Curlew (1,345) and Greenshank (36). The Shelduck population is the largest in the country (9.6% of national total), while those of Shoveler (4.5% of total) and Pintail (4.2% of total) are also very substantial. The site has regionally or locally important populations of a range of other species, including Whooper Swan (10), Pochard (145), Golden Plover (805), Grey Plover (66) and Turnstone (99). Other species using the site include Bat-tailed Godwit (45), Mallard (456), Tufted Duck (97), Goldeneye (15), Coot (77), Mute Swan (39), Ringed Plover (51), Knot (31), Little Grebe (68) and Grey Heron (47). Cork Harbour is an important site for gulls in winter and autumn, especially Common Gull (2,630) and Lesser Black-backed Gull (261); Black-headed Gull (948) also occurs.

A range of passage waders occur regularly in autumn, including Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over winter.

The wintering birds in Cork Harbour have been monitored since the 1970s and are counted annually as part of the I-WeBS scheme.

Cork Harbour has a nationally important breeding colony of Common Tern (3-year mean of 69 pairs for the period 1998-2000, with a maximum of 102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Extensive areas of estuarine habitat have been reclaimed since about the 1950s for industrial, port-related and road projects, and further reclamation remains a threat. As Cork Harbour is adjacent to a major urban centre and a major industrial centre, water quality is variable, with the estuary of the River

Lee and parts of the Inner Harbour being somewhat eutrophic. However, the polluted conditions may not be having significant impacts on the bird populations. Oil pollution from shipping in Cork Harbour is a general threat. Recreational activities are high in some areas of the harbour, including jet skiing which causes disturbance to roosting birds.

Cork Harbour has is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

4.7.2004

SITE SYNOPSIS**SITE NAME: GREAT ISLAND CHANNEL****SITE CODE: 001058**

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

The main habitats of conservation interest are the sheltered tidal sand and mudflats and Atlantic salt meadows, both habitats listed on Annex I of the EU Habitats Directive. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algal species occur on the flats, especially *Ulva lactuca* and *Enteromorpha* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially at Rosslare and Belvelly. The salt marshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Greater Sea-spurry (*Spergularia media*), Sea Lavender (*Limonium humile*), Sea Arrowgrass (*Triglochin maritimum*), Mayweed (*Matricaria maritima*) and Red Fescue (*Festuca rubra*).

The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. Shelduck are the most frequent duck species with 800-1000 birds centred on the Fota/Marino Point area. There are also large flocks of Teal and Wigeon, especially at the eastern end. Waders occur in the greatest density north of Rosslare, with Dunlin, Godwit, Curlew and Golden Plover the commonest species. A population of about 80 Grey Plover is a notable feature of the area. All the mudflats support feeding birds; the main roost sites are at Weir Island and Brown Island and to the north of Fota at Killacloyne and Harper's Island. Ahanesck supports a roost also but is subject to disturbance. The numbers of Grey Plover and Shelduck, as given above, are of national importance.

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

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

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

2.10.2001

List of agencies consulted: provide contact name and telephone or e-mail address

National Parks & Wildlife Service (NPWS), Department of the Environment Heritage & Local Government (DEHLG)

Response to consultation

A response from the DAU of the DEHLG is pending.

Data collected to carry out the assessment**Who carried out the assessment**

Moore Group Environmental Services

Sources of data

NPWS database of designated sites at www.npws.ie

Level of assessment completed

Desk Study and field survey.

Where can the full results of the assessment be accessed and viewed

Cork County Council Planning Section.

Overall Conclusions

The proposed floating pontoon would be held in place using a point anchor system. Dredging at the site will not be required. Overall, there would be no significant impact on marine flora and fauna.

There would be no significant impact on the adjacent Cork Harbour SPA and Great Island Channel SAC.