MARINE NATURA IMPACT STATEMENTS IN IRISH SPECIAL AREAS OF CONSERVATION

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Prepared by the National Parks & Wildlife Service of the Department of Arts, Heritage & the Gaeltacht



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CONSERVATION LEGISLATION OVERVIEW

A number of legal instruments exist in Ireland for the purposes of conserving and protecting its natural heritage. The Wildlife Acts 1976-2010 provide a wide-ranging basis for the protection of habitats and species throughout Ireland. The 1979 EC Birds Directive (codified 2009/147/EC) makes legal provision for the designation of Special Protection Areas and for the protection of wild birds and their habitats through the European Union. The 1992 EU Habitats Directive (Council Directive 92/43/EC) is transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations (SI 477 of 2011). Article 4 of the Directive requires the establishment of Special Areas of Conservation (SACs) to conserve habitats and species listed in Annex I and II respectively. To ensure effective conservation of protected habitats and species in SACs, Article 6 requires that all operations and activities in or adjacent to SACs and likely to have a significant effect thereon are subject to an appropriate assessment individually and in combination with other operations or activities. Article 7 of the EU Habitats Directive also installs similar requirements for Special Protection Areas (SPA) designated under the EC Birds Directive. Where a site has dual designations as both a SAC and a SPA, the likely effects in relation to both designations should be considered. Article 12 of the Habitats Directive further requires that Member States take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting

- all forms of deliberate capture or killing of specimens of these species in the wild;
- deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;
- deliberate destruction or taking of eggs from the wild;
- deterioration or destruction of breeding sites or resting places.

In the marine environment, relevant Annex IV species include for example all whales, dolphins and porpoises, and some marine turtle species.

ADMINISTRATIVE PROCESS

It is the responsibility of individual Regulatory Authorities in Ireland to ensure that the provisions of these legal requirements are adhered to in the delivery of their statutory functions. In practice and where required, Regulatory Authorities circulate all relevant applications to a list of Statutory Consultees for observations to inform their decision concerning an application. The National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht provides observations and advice concerning national and international nature conservation obligations to these Regulatory Authorities when so requested.

The Irish Foreshore is defined in the 1933 Foreshore Act as the area of seafloor below the high water line of a medium tide; currently, the foreshore extends out to the 12 nautical mile line. Many developments on the foreshore require a consent administered by the Foreshore Section of the Department of the Environment, Community & Local Government. Activities on

the foreshore relating to aquaculture and sea fisheries are administered by the Coastal Zone Management Division at the Department of Agriculture, Marine and Food. Dredging and dumping at sea licences are regulated by the Environmental Protection Agency.

The Petroleum Affairs Division of the Department of Communications, Energy and Natural Resources regulates oil and gas exploration and development on the Continental Shelf (up to and beyond 200 nautical miles.

Local Authorities exercise planning functions including in coastal environments while Harbour Boards also have regulatory powers with respect to designated harbour areas. The National Parks and Wildlife Service of this Department is also a Regulatory Authority for specified activities not otherwise licensable by other bodies (i.e., for activities requiring consent as listed for each designated site; see www.npws.ie).

All the Regulatory Authorities concerned have an obligation to ensure that operations or activities that are likely to have a significant effect on the protected habitats and/or species in a Special Area of Conservation are subject to an appropriate assessment.

In 2010, the Department of the Environment, Heritage & Local Government produced general guidance for planning authorities concerning the appropriate assessment process for plans and projects in Ireland. The principles and general approach to the appropriate assessment process outlined in that publication are also relevant to Regulatory Authorities in the marine sector. Following on from that general guidance, this Department now provides more detailed technical guidance to Regulatory Authorities and/or parties interested in developing the foreshore in or adjacent¹ to Special Areas of Conservation to

- 1. ensure that a Natura Impact Statement contains relevant technical details describing the proposed operation/activity, and
- 2. provide some direction as to the considerations that should be recorded in a Natura Impact Statement when examining various types of activities at SACs.

It should also be noted that consideration of other possible conservation requirements in addition to Article 6 obligations may also be required.

¹ A one-distance-fits-all definition for adjacency does not exist. It will depend on the scope of impact of the proposed operation/activity, the environmental conditions and the qualifying interests of the relevant SAC.

STAGE 1 APPROPRIATE ASSESSMENT SCREENING

1. DESCRIPTION OF PLAN OR PROJECT, AND LOCAL SITE OR PLAN AREA CHARACTERISTICS

It is necessary to compile and record sufficient facts about the proposed operation/activity. This would include specific details about how it is proposed to conduct the operation/activity, the area of foreshore it would encompass and the relevant location(s) including for storage/access/ancillary works.

1.1. Full description of proposed plan or project

Background

- What is the purpose of the plan or project?
- Why is it being proposed in this location?
- Is it a stand-alone plan or project or is it part of a larger programme of development?
- Will this proposal create a requirement or imperative for future plans or projects to be licensed at this or other protected sites?

Investigation/Development phase

- What is the overall size of the area to be directly impacted during the investigation/development phase?
- What are the different types of operations/activities associated with the investigation/development phase?
- What are the locations in which the different types of operations/activities associated with the investigation/development phase will take place?
- During what months will the different types of operations/activities associated with the investigation/development phase take place?

Operational phase

- What is the overall size of the area to be directly impacted during the operational phase?
- What are the different types of operations/activities associated with the operational phase?
- What are the locations in which the different types of operations/activities associated with the operational phase will take place?
- During what months will the different types of operations/activities associated with the operational phase take place?

- 1.2. Description of receiving environment²
 - What is the location of the proposed plan or project relevant to the surrounding regional and local environment? Clear maps of an appropriate scale should be provided.
 - What is the depth/height of the proposed plan or project (chart datum)?
 - What are the estimated tidal and current flow regimes at the location of the proposed plan or project?
 - What is the likely location of Annex I habitats or the habitats of Annex II species in the area?
 - Is the receiving area likely to host Annex II species?
 - What operations/activities already exist in the receiving environment?
- 2. IDENTIFICATION OF RELEVANT SPECIAL AREA OF CONSERVATION, AND COMPILATION OF INFORMATION ON THEIR QUALIFYING INTERESTS AND CONSERVATION OBJECTIVES
 - 2.1. Special Area of Conservation³
 - Site name
 - Site code
 - All qualifying interest(s)⁴
 - Conservation objectives and targets (where available)⁵
- 3. ASSESSMENT OF LIKELY EFFECTS DIRECT, INDIRECT, CUMULATIVE UNDERTAKEN ON THE BASIS OF AVAILABLE INFORMATION (DESK STUDY, FIELD SURVEY AND/OR PRIMARY RESEARCH)
 - 3.1. Likely effects of proposed plan or project
 - What are the likely effects of relevance to the proposed plan or project (e.g., see table below)?

1. Permanent habitat loss	13. Displacement/exclusion of species
2. Smothering	14. Synthetic compound contamination ⁶
3. Suspended sediment	15. Heavy metal contamination
4. Desiccation	16. Hydrocarbon contamination
5. Changes in emergence regime	17. Changes in nutrient levels
6. Changes in water flow rate	18. Changes in salinity
7. Changes in temperature	19. Changes in oxygenation

² The receiving environment equals the area directly and indirectly impacted by the proposed plan or project.

⁴ Qualifying Interests are the Annex I habitats or Annex II species for which the site has been designated.

³ Details are available on www.npws.ie

⁵ Site-specific details are being developed on an ongoing basis. Interested parties may wish to check with NPWS.

⁶ A synthetic compound does not occur naturally but may be synthesised from natural materials.

8. Changes in turbidity	20. Introduction of microbial
	pathogens / parasites
9. Changes in hydrodynamic regime	21. Introduction of non-native
	species
10. Noise disturbance	22. Selective extraction of target
	species
11. Visual presence	23. Selective extraction of non-
	target species
12. Abrasion / Physical disturbance	

3.2. Screening assessment

The task of establishing whether the plan or project is likely to have an effect on a Natura 2000 site or sites is based on a preliminary consideration of the likely impacts of a proposed operation or activity. This is followed by a determination of whether there is a risk that the effects identified could be significant. A precautionary approach is fundamental and, in cases of uncertainty, it should be assumed the effects could be significant.

- Is it likely that the potential ecological effects associated with the proposed operation/activity alone or in combination⁷ with other operations/activities might have a significant adverse impact on an Annex I habitat for which the Special Area of Conservation is designated?
- Is it likely that the potential ecological effects associated with the proposed operation/activity alone or in combination with other operations/activities might have a significant adverse impact on the habitat of an Annex II species for which the Special Area of Conservation is designated?
- Is it likely that the potential ecological effects associated with the proposed operation/activity alone or in combination with other operations/activities might have a significant adverse impact on an Annex II species for which the Special Area of Conservation is designated?

Where a proposal is unlikely to have a significant adverse impact on a habitat and/or species for which the site is designated, a clear, reasoned and scientifically rational explanation of why there is unlikely to be a significant effect should be provided. The

⁷ The in combination requirement means that the likely effects of the proposed operation/activity should be considered against those effects that arise in relation to existing or already consented operations/activities. In other words, the additive effect of the proposed operation/activity must be considered to ensure a likely significant effect is avoided.

Screening Statement should reflect this outcome; an Appropriate Assessment is not then necessary for the relevant habitat and/or species.

Where the likelihood of a significant effect cannot be excluded for a habitat and/or species for which the site is designated on the basis of the information available, the Screening Statement should reflect this and an Appropriate Assessment should be undertaken for the relevant habitat and/or species.

3.3. Screening statement with conclusions

Screening can result in the following possible conclusions or outcomes:

AA is not required Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site.

No potential for significant effects/AA is not required Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed. However, no changes may be made to the nature of the proposal as screened without prior consultation with the Consent Authority as this may invalidate the findings of screening. Documentation of the AA screening process, including conclusions reached and how decisions were made, must be kept on file.

Significant effects are certain, likely or uncertain The plan or project must either proceed to Stage 2 (AA), or be rejected. Rejection of a plan or project that is too potentially damaging and/or inappropriate ends the process and negates any need to proceed to Stage 2 (AA).

Another possible option is to recommence the screening process with a modified plan or project that removes or avoids elements that posed obvious risks. This highlights the importance of the step-wise approach of first screening a plan or project when new alternatives that may not have any impact are being considered. However, repeated or complicated screening exercises are not recommended as they point to the risk of significant effects and the need for Stage 2 (AA).

The safeguards set out in Article 6(3) and (4) of the Habitats Directive are triggered not by certainty but by the possibility of significant effects. Thus, in line with the precautionary principle, it is unacceptable to fail to undertake an appropriate assessment on the basis that it is not certain that there are significant effects.

STAGE 2 NATURA IMPACT ASSESSMENT

The more detailed ecological assessment of proposed activities requires that two key questions be addressed: 'What are the likely impacts of the proposed activity?' and 'How quickly could the qualifying interest recover from the impact, if at all?'

In the context of those site qualifying interests for which the screening process has not excluded the likelihood of a significant adverse impact, appropriate assessment requires that the types of impact associated with the proposed plan or project be identified: e.g., direct and indirect effects; short- and long-term effects; construction, operational and decommissioning effects; noise, light, pollution and disturbance; hydrological effects; pollution, including diffuse pollution; habitat degradation and loss; and isolated, seasonal interactive and cumulative effects.

Completion of the more detailed ecological assessment is likely to require the consideration *inter alia* of site-specific or activity-specific data, e.g., hydrodynamic modelling, ecological survey, sound pressure levels.

4. ANNEX I HABITAT

Many marine Annex I habitats are complex and geographically extensive but may not in themselves constitute an easily discernible single ecological unit, e.g., estuaries, inlets and bays, mudflats and sandflats. When assessing the likely impact of a proposal on the structure and function of such habitats, it is therefore necessary to consider the principal ecological components or broad community types for these habitats.

The extent and quality of all marine habitats varies considerably in space and time. Marine habitats are particularly prone to such variation and those varying by natural processes alone must be considered to have favourable conservation condition within a site. It is therefore important to consider the extent to which the marine habitats under consideration (or components thereof as relevant) vary under natural conditions when assessing the likely significance of a particular impact.

The degree to which a particular marine habitat is impacted by a particular pressure varies depending on the habitat itself and the pressure proposed. Attributes (of habitats and their resident species) vary in their resistance to change (the rate of change in an attribute following application of a given level of pressure). This change is followed by recovery (resilience) when the pressure is removed and the degree of change in the attribute may also affect recoverability. This could be due, for example, to reductions in productivity of the environment or the population. Resistance and resilience are not necessarily linear processes over time or in relation to an applied pressure but can take many different trajectories depending on the pressure applied, life-history traits and ecological properties of the habitat in question. Understanding the likely resistance and resilience of a habitat to

proposed human impacts is a key aspect and challenge of the assessment process in the marine environment.

In addition, the inextricable links between the physical, chemical and biological nature of marine habitats must also be carefully considered. For example, small changes to the physical or chemical fabric of a habitat may have significant consequences for the biological communities' resident in the habitat. Consequently, careful consideration should be given to all such aspects through each of the following questions in turn, insofar as they may relevant to the assessment.

- Is there likely to be an adverse impact to physical or chemical parameters, or principal biological communities of the Annex I habitat?
- How does that impact arise in relation to the proposed development?
- How are the existing physical, chemical and/or biological aspects of the qualifying interest likely to be impacted?
- What is the likely duration of the impact?
- Where applicable, how quickly are the biological communities likely to recover once the operation/activity has ceased?
- In the absence of mitigation, are the physical, chemical or biological impacts of the proposed operation/activity likely to have a significant effect on the favourable conservation condition⁸ or relevant conservation targets (where available) of the Annex I habitat at the site?
- What measures can be implemented to mitigate the significance of the likely adverse impact into insignificance?

5. ANNEX II SPECIES

The assessment of impacts on species needs to consider many aspects of the likely impact (e.g., sound intensity, duration of impact, seasonality of works, etc) and its effects on individuals and/or populations of Annex II species at sites, and to their likely habitats. Whilst the ecological requirements of species in a particular geographical area may be unclear, the assessment approach may usefully focus on both direct effects (e.g., physical harm, detrimental changes to or interference with natural behaviour) and indirect effects (e.g., changes in prey distribution) to ensure a comprehensive approach.

- Will the proposed operation or activity result in death, injury or disturbance of individuals?⁹
- Is it possible to estimate the number of individuals that are likely to be affected?
- Will individuals be disturbed at a sensitive time or location during their life cycle?
- Are the impacts likely to focus on a particular section of the population, e.g., adults vs. juveniles, males vs. females?

⁸ Favourable conservation status refers to conservation status at a national level. Favourable conservation condition is a phrase that has developed within Member States to reflect the conservation status at individual site level.

 $^{^{\}rm 9}$ Activity specific details concerning intensity and frequency of sound-producing sources should be included.

- Will the operation/activity cause displacement from key functional areas?
- Is the operation/activity likely to cause permanent or temporary hearing loss for protected species?
- Is the habitat of the species likely to deteriorate causing disturbance to individuals or populations?
- How quickly is the affected population in the SAC likely to recover once the operation/activity has ceased?
- In the absence of mitigation, are the effects of the proposed operation/activity on Annex II species likely to have a significant effect on the favourable conservation condition of the Annex II species at the site?
- What measures can be implemented to mitigate the significance of the likely adverse impact into insignificance?

6. MITIGATION MEASURES TO BE UNDERTAKEN

Those measures that are proposed for implementation to minimise and/or eliminate likely effects on the favourable conservation condition of the qualifying interests(s) should be clearly outlined. Measures identified in previous sections should be restated here for clarity.

7. MONITORING AND REPORTING TO BE UNDERTAKEN

Where monitoring and reporting for a proposed operation/activity is to be undertaken, a clear description of the monitoring programme and reporting schedule and timeframe should be provided. The relevant Regulatory Authority who will be provided with the report should be clearly identified. Such reporting should outline the success or otherwise of any relevant mitigation.

8. CONCLUDING STATEMENT

The overall determination of the Natura Impact Statement should be recorded. This should state clearly whether the proposed operation/activity is likely to have a significant effect on any of the qualifying interests at the site.