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Galway Harbour Extension

Application to An Bórd Pleanála

AN BORD PLEANÁLA
TIME 9.30 BY NPNS
1 8 JAN 2015
LTR-DATED LM. FROM
PL PA0033

Oral Hearing

Ecology Module

Brief of Evidence

Cliona O'Brien

National Parks and Wildlife Service

Department of Arts, Heritage and the Gaeltacht

15th January 2015

Introduction:

1. My name is Cliona O'Brien and I am the Head of Ecological Assessment for the National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht. I have held this post since its establishment in July 2013. I have a BSc (Hons) in Zoology from University College Cork and an MSc (Hons) in Conservation Biology from the Durrell Institute of Conservation and Ecology at the University of Kent in Canterbury. I have previously worked for WWF International (World Wide Fund for Nature) as a Senior Policy Analyst on matters concerning international wildlife trade and its effects on endangered species. More recently, I was the Wildlife Officer for the Heritage Council (2007-2013), where I worked on a wide range of issues affecting Ireland's natural heritage. This included, amongst other things, the development of policy proposals on high nature value farming and the production of the Council's publication *Best Practice Guidance for HabitatSurvey and Mapping* (2011).

2. I refer to the Department's previous correspondence to An Bórd Pleanála of the 11th March 2014 and 5th December 2014. This correspondence summarised the history of the advice provided to the applicant and set out the Department's observations and recommendations concerning the implications of the proposed development for natural heritage. I understand from the Inspector that these observations do not need to be read into the record in full and are considered as read so they will not be repeated here. However, I would like to summarise some of the key issues raised in the Department's previous correspondence.

3. In its observations, the Department had suggested to the Board that it request the applicant to further develop its analysis and to undertake any further research and survey work as required for the conclusion of an analysis of the implications of the proposed development, in view of the sites's conservation objectives, to the necessary standard. This suggestion was based on a wide number of issues that were explained in much greater detail in the observations, but some of the critical issues are as follows:

   a.It was the Department's view that a number of gaps and uncertainties remained to be resolved in the analysis provided by the applicant. This concerned, at the least, a number of the Species of Conservation Interest for the SPA, and Qualifying Interests for the SAC such as the priority habitat Coastal lagoons, Perennial vegetation of stony banks, Atlantic salt meadows, Mediterranean salt meadows, harbour seal, as well as the EIS-related risk assessment for cetaceans. One of the critical issues of concern was that the analysis often failed to consider the impactsand their

significance with specific regard to the conservation objectives for the site, and the attributes and targets set out thereunder.

b. the permanent loss of the marine Annex I habitats, Mudflats and sandflats not covered by seawater at low tide and Reefs, is not consistent with the conservation objectives for the site, which is to maintain their favourable conservation condition. This requires that the permanent habitat area for these habitats would remain "stable or increasing, subject to natural processes"[1].

c.the matter of the "legacy" issues concerning the previous development of the site needed to be resolved.

4. It was noted in the observations that this further analysis would also be in the interests of the applicant as it may narrow any future requirements for compensatory measures. Furthermore, the capacity of the Minister for Arts, Heritage and the Gaeltacht to furnish an opinion on the sufficiency of any proposed compensatory measures would depend on the quality and completeness of the assessments underpinning the Board's decision.

5. The applicant has submitted extensive new documentation to this oral hearing, including:

   - The NIS Addendum/Errata Document II (January 2015)
   - The EIS Addenda/Errata to Chapters document (January 2015)
   - The 'Response to Observations and Recommendations made by Department of Arts, Heritage and the Gaeltacht to An Bord Pleanála on 11th March 2014' (January 2015)
   - The 'Response to Observations and Recommendations made by Department of Arts, Heritage and the Gaeltacht to An Bord Pleanála on 5th December 2014' (January 2015)
   - as well as a number of briefs of evidence, which are all welcomed

6. The Department has reviewed this new documentation as extensively as is feasible within the time available and will respond this morning on the following:
   - Marine Annex I habitats (Dr. David Lyons)
   - Coastal Lagoons (Dr. Yvonne Leahy)
   - Other coastal habitats (Dr. Julie Fossitt)

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[1]Conservation Objectives Series, Galway Bay Complex SAC 000268, Version 1, 16 April 2013, Department of Arts, Heritage and the Gaeltacht.

- Marine mammals (Dr. Oliver O'Cadhla)
- Birds (Dr. David Tierney)

7. With respect to otters, my colleague, Dr Ferdia Marnell, would like to put some questions to the applicantin view of the information provided this week.

8. One of the Department's key outstanding concerns is that the conclusionin the documentation provided, that *"the effectsare not considered to be significant on either of the Natura sites"* (page 37 of the NIS Addendum/Errata Document II", is still not consistent with or sufficiently well-supported or analysedin view of a number of the specific conservation objectives and their attributes for the sites, including, but not only, where issues of permanent loss of habitat arises.My colleagues will explain further in more detail, where relevant to specific habitats and species.

13A

AN BORD PLEANÁLA
TIME 9.40 BY NPNS
1 : JAN 2015
TR-DATED 2M FROM
PA0033

Galway Harbour Extension Project

Strategic Infrastructure Development

An Bord Pleanala

Oral Hearing

January 2015

Dr David Tierney

Department of Arts, Heritage & the Gaeltacht

My name is Dr David Tierney and I am a Wildlife Inspector with the National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht. I have a BSc (Hons) in Zoology from the National University of Ireland, Galway. I also received, from the same university, a PhD for my research on the breeding biology of a species of waterbird. I have worked with NPWS in my current position for over six years and before that I was an independent ecological consultant.

Due to its ornithological importance Inner Galway Bay was originally designed as Special Protection Area under the Birds Directive as per Statutory Instrument 349 of 1994. The conservation objectives for this SPA have been published by NPWS (2013).

In order to help to optimise the Bord's time at this oral hearing I will try to avoid repeating commentary here that has already been transmitted by my Department on the 11th of March 2014 (ref. no. PI61.PA0033) and on the 5th of December 2014 (ref no. 61.PA0033). However as this submission is an opportunity to respond to the recently revised Natura Impact Statement (i.e. Natura Impact Statement Addendum / Errata Document II of January 2015) and to the briefs of evidence by Drs Gittings and Peppiatt some of the Department's previous comments are repeated here to provide context.

Conservation Objectives and Special Conservation Interests for Inner Galway Bay SPA

Inner Galway Bay SPA lists 20 species as special conservation interests. The wetland habitat contained within the SPA is a special conservation interest in its own right. During the overwintering period the following listed species are known to occur in nationally or internationally important numbers: Great Northern Diver; Cormorant; Grey Heron; Light-bellied Brent Goose; Wigeon; Teal; Shoveler; Red-breasted Merganser; Ringed Plover; Golden Plover; Lapwing; Dunlin; Bar-tailed Godwit; Curlew; Redshank; Turnstone; Black-headed Gull; and Common Gull.

During the summer months Cormorant is also recorded breeding in Inner Glaway Bay in nationally important numbers and so this breeding population is also listed as a special conservation interest for this site along with Common Tern and Sandwich Tern.

The conservation objectives for Inner Galway Bay can be separated into two categories namely (1) To maintain the favourable conservation condition of the special conservation interests for which the site is designated; and (2) To maintain the favourable conservation condition of the wetland habitat in Inner Galway Bay SPA as a resource for the regularly occurring migratory birds that utilise it. The former category can be broadly subdivided into two subcategories depending on whether the species is a breeding or overwintering conservation interest.

For the listed species overwintering at Inner Galway SPA the conservation objective has been defined under two attributes and corresponding targets.

Attribute Number	Attribute	Measure	Target
No. 1	Population trend	Percentage change	Long-term population trend stable or increasing
No. 2	Distribution	Number and range of areas used	There should be no significant decrease in the range, timing and intensity of use by the waterbird species, other than that occurring from natural patterns of variation

Turnstone - Attribute No 1

To assess the potential cumulative impact of habitat loss arising from the previous development at Galway Harbour and the proposed development on the population trends of the overwintering species, the respective potential displacement impacts were calculated. This was achieved for each species by dividing the mean count data from the development site by the mean Irish Wetland Bird Survey (I-WeBS) counts for two winters with correction factors for those species that use subtidal waters (this approach is set out in paragraph 30 of Dr Gittings' brief of evidence).

Paragraph 33 of Dr Gittings' brief of evidence notes that such displacement impacts will only have consequences at the site population level, if the population is at, or near, the effective carrying capacity of the site.

Paragraph 69 notes that the intertidal habitat lost from Inner Galway Bay from the development of the Galway Harbour Enterprise Park (GHEP) is considered to have been a habitat (a fucoid dominated biotope) that would have been very suitable foraging habitat for Turnstone. In-combination with the 2.1ha remaining in the GHE site, would have amounted to 10.7 ha of foraging habitat, which accounts for approximately 1% of this biotope within the SPA. It is further stated that this area "may have provided a sufficient area for birds to remain foraging throughout the low tide period and, therefore, the potential usage of this habitat may have been significantly greater than would be implied by a simple pro-rata calculation of the numbers using the remaining habitat". But he goes on to state "the population trend data indicates that the Inner Galway Bay Turnstone population did not reach the effective carrying capacity during the development of the GHEP. Therefore, any displacement caused by the development of the GHEP would not have had any population level consequences."

Paragraph 31 notes that the predicted displacement of the wintering species due to permanent habitat loss was 0.3% or less of the mean I-WeBS counts with the exception of Turnstone which is estimated at 2.1%.

On page 12 of Dr Gittings' *Special Conservation Interests Species Assessment* report it states that in the case of Turnstone, recent I-WeBS data indicates that the population trend may have levelled off since 2007/08... the evidence at present does not rule out the possibility that the Inner Galway Bay Turnstone population has reached the effective carrying capacity of the site."

The arguments laid out in paragraph 101 (i.e. that the GHE monitoring was more intensive and may have recorded more individuals compared to standard I-WeBS counts) can be countered by the acknowledged possibility that the 8.58ha of suitable habitat already lost to the previous development at Galway Harbour, which may have supported numbers of Turnstone significantly greater than would be implied by a simple pro-rata calculation of the numbers using the remaining habitat. Therefore a concern remains that the displacement impact predicted for Turnstone could have population level consequences and so undermines Attribute No.1 of the conservation objective for Turnstone.

Attribute 2 of the Conservation Objectives for wintering species

In the last written submission the Department asked that the proposed development should be assessed against each of the attributes (i.e. Attribute No 1 Population Trend and Attribute No 2 Distribution) separately. Dr Gittings' assessment (as per paragraph 95) has explicitly focused on the impacts of displacement due to disturbance and/or habitat loss on waterbird populations.

Attribute No. 2 of the relevant conservation objective sets out that the broad-scale distribution of the listed species should remain relatively constant over the long-term. Depending on the extent an impact such as habitat loss or loss of habitat quality may lead to some or all individuals of a species avoiding an area or indeed leaving a site altogether which would acutely impact upon both attributes. In cases where distribution of a bird species is affected less obviously, or to a seemingly lesser degree (e.g. through disturbance) but where factors such as competition or predation could come into effect that may reduce an individual's body condition or probability of overwinter survival and hence its fitness. This will have consequences for the species' population as a whole. This could be significant both in terms of Attribute No. 1 and No. 2. It is conceivable that an impact (e.g. habitat loss and/or persistent disturbance) could alter a species' distribution in a site and that such a distributional change would not a have a predicted negative effect on the population trend. If a species' range or overall distribution within a site decreases then the species would be more vulnerable to future population level impacts from other (as yet unidentified) sources. This increase in a species' vulnerability could alternatively be described as a decrease in the site's resilience to be able to provide appropriate foraging and roosting resources for a species to maintain the population into the future. It could be argued that Attribute No 1 takes such precaution into account but it is considered more appropriate to specifically set out an attribute (i.e. Attribute No 2) that acknowledges the current distribution and site use of a listed species (assuming that disturbance, previous habitat loss or a reduction in habitat quality is not markedly affecting the current distribution and site use) and gives a useful framework to assess a particular plan or project against the requirement that there is, and will probably continue to be, a sufficiently large habitat to maintain its populations in the long-term.

On page 37 of the NIS Addendum / Errata Document II of January 2015, and in relation to the wetland habitat as a special conservation interest it is stated that "on the basis that it cannot be said without reasonable scientific doubt that the impacts would not be significant, for the purpose of this assessment, such habitat loss and impact on species is being treated as significant." In relation to the legacy issue (including the previous permanent loss of 8.58ha of fucoid dominated intertidal reef complex) a similar conclusion of significance is declared.

As the wetland conservation objective overlaps with the species specific conservation objectives (i.e. for those regularly occurring migratory bird species that use the wetland) and if it is conceded by the applicant that the impact of the cumulative habitat loss is significant then the applicant should identify which of these impacted species that are regularly occurring in Inner Galway Bay SPA and that are specifically listed for the site. The cumulative impact of the proposed development on this/these identified bird species are likely to be at odds with one or both of the two attributes for the relevant conservation objective(s).

This Department considers that that there is significant uncertainty regarding the cumulative assessment of the effects of the permanent loss of 10.7ha of suitable foraging habitat caused by the earlier development and the proposed development, in relation to the second attribute of the conservation objective for Turnstone: that there will be no significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation.

Great Northern Diver

Inner Galway Bay SPA is the most important wintering site in Ireland for Great Northern Diver as measured by I-WeBS. It can be estimated that approximately 14% of the national population occurs at this SPA. Dr Peppiatt on page 13 of his brief of evidence acknowledges that Great Northern Diver can certainly be flushed to flight by approaching ships. He also notes that there is a certain amount of confusion in the current scientific literature.

In previous comments the Department has expressed a concern on the lack of data on the numbers and distribution of Great Northern Diver using the middle part of the bay. Only a proportion of the subtidal waters are regularly monitored by land based methods. Significant areas of the bay that are subtidal and, due to their relative shallow depth, are considered to be suitable for Great Northern Diver.

In rebutting this concern (paragraph 131) Dr Gittings states that "there are no unusual habitat features in the middle of the bay that would attract high concentrations of divers. If anything, densities might be expected to be lower, due to the more exposed nature of the area." He concludes by stating that "there is no scientific reason to expect densities of Great Northern Diver to be significantly higher in the middle of the Bay."

This rebuttal raises two issues

1. If the applicant wanted to bring certainty to this situation either a series of whole bay surveys using standard 'seabird at sea' survey methods, sample transects across the bay or surveying a number of randomly selected areas in the bay should have been undertaken (I can recall that 'seabirds at sea' methods were discussed with Dr Peppiatt). In relation to published guidance on methodology Camphuysen et al (2004) is widely referenced. As the applicant relied on I-WeBS or other shore-based monitoring, the datasets from subsites that were used to provide an indication of the distribution of Great Northern Diver (and other birds using subtidal waters) are biased in that they are all from subsites adjacent to the shore.

2. No scientific survey reports describing the diver distribution in shallow bays similar to Inner Galway Bay are cited to support that fact that densities might be expected to be lower in the middle part of the bay. Furthermore if densities are lower in the middle of the bay then such a scenario would undermine Dr Gittings' assumption that birds displaced from habitat degradation by the proposed development and by increased disturbance from vessels would be evenly distributed across the bay.

Paragraph 33 of Dr Gittings' brief of evidence sets out a predicted displacement due to habitat loss combined with habitat degradation to be 1.0%. This assumes complete exclusion of this species from the development site but does not factor in shipping lanes and areas of relatively high recreational boating/sailing disturbance. In paragraph 35 it is stated that the analysis of waterbird distribution patterns indicate that Great Northern Diver and other species occur at relatively uniform densities across suitable habitat within the bay and therefore, any displaced birds would be evenly distributed across the remaining habitat.

However by paragraph 60 of Dr Gittings' brief of evidence states that "given the more or less uniform very low densities... and the fact that the highest recreational boat traffic will be in the summer, outside the main season of occurrence... it is unlikely that increased recreational disturbance will cause significant disturbance impacts."

Great Northern Diver was regularly recorded in the subtidal waters of the development site's count area. Should the proposal go ahead and in order to avoid damage caused by underwater noise generated as part of the construction phase to Great Northern Diver and other diving species it is proposed, as a mitigation measure, that diving birds will deliberately be displaced from the environs of the noise source through the use of RIBs quartering the area. As the proposed period of pile driving significantly overlaps with the overwintering period of this

diver species the 'worst case scenario' as outlined in paragraph 50 of Dr Gittings' brief of evidence could become a reality.

When the acknowledged uncertainty with regard to how the population of Great Northern Diver will react with the projected twofold increase in recreational boating and increases in other boating activities, is combined with the direct disturbance caused by the construction phase mitigation measures and a lack of robust data on how this species is distributed in the middle of the SPA, the conclusion that significant impacts on the conservation objective (in particular Attribute No 2) for this species has been excluded by the applicant is not scientifically robust.

References

Camphuysen, K. J., Fox, A. D., Leopold, M. F. and Petersen, I. K. (2004) *Towards standardised seabirds at sea census techniques in connection with environmental impact assessments for offshore wind farms in the U.K.: a comparison of ship and aerial sampling methods for marine birds, and their applicability to offshore wind farm assessments* (PDF, 2.7 mb), NIOZ report to COWRIE (BAM – 02-2002), Texel, 37pp

NPWS (2013) Conservation objectives: Inner Galway Bay SPA 004031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Series editor: Rebecca Jeffrey. ISSN 2009-4086.

13B

AN BORD PLEANÁLA
TIME 10:00 BY NPWS
15 JAN 2015
LTR-DATED JM FROM
PL PA0033

Galway Harbour Extension

Application to An Bórd Pleanála

Oral Hearing - Ecology Module

Brief of Evidence – Marine mammal species

Oliver Ó Cadhla

for

National Parks and Wildlife Service,

Department of Arts, Heritage and the Gaeltacht

15th January 2015

Background

My name is Oliver Ó Cadhla. I am a marine scientist and ecologist working on contract to the Department of Arts, Heritage and the Gaeltacht. My academic qualifications include a BSc. Honours in Zoology from University College Cork (1993) and a PhD. in Science from the National University of Ireland (1998). The topic of my PhD. concerned seal population biology and I also have extensive experience at pre-doctoral, post-doctoral and at a professionallevel concerning the biology, ecology and conservation of whales, dolphins and porpoises (i.e., cetaceans). I have over 15 years of experience working as a professional marine mammal scientist. In this regard I have been working full-time as a marine ecologist for the Department for almost 6 years. In that time among other matters I have had a significant role in providing observations on behalf of the Department in relation to coastal and marine developmentsand activities that may interact with protected marine mammal species.

Introduction

At the outset I wish to set out clearly that this Brief of Evidence covers only my comments as applicable to the new material and information received from the Applicant on Tuesday 13th January 2015.

By way of introduction, the Department acknowledges and welcomes the additional clarification and analysis provided by the Applicant on foot of its original planning application, requests for further information, and the Department's responses to the information as presented.

I will now commence with the Department's observations and recommendations regarding the additional information provided that concerns marine mammal species as follows:

1. **Review of the Applicant's responses to DAHG observations/recommendationsonthe original application (March 2014)**

The Department acknowledges and welcomes the additional clarification and further analysis provided by the Applicant.

The revision of NIS conclusions regarding the potential and likely effects of the proposed development, to the exclusion of the term "indeterminate" is also acknowledged and welcomed.

It isnoted that a desktop analysis of "the observed impacts of similar developments and associated coastal/maritime activities on harbour seal populations" recommended by the Department was not undertaken by the Applicant. The Department notes the statement by the Applicant that "published information for similar developments is not generally available". It would be useful if the Applicant could provide some more detail on what review or other work,if any,was undertaken in this regard.

This point also applies underthe next item, item 2.

2. Review of the Applicant's responses to DAHG observations/recommendations on Further Information (December 2014)

The Department acknowledges and welcomes the additional clarification and further analysis provided by the Applicant.

2.1 Acoustic Deterrent Devices

The Department acknowledges and welcomes the further clarification provided in the Response on the approach taken by the Applicant regarding potential use of Acoustic Deterrent Devices and the context in which such use might occur.

2.2 Wildlife Pass proposed by the Applicant

It is the Department's view thatclear evidence should be presented by the Applicant to support the concept that the proposed Wildlife Pass would bea viable impact mitigation measure for seals, thereby alleviating a possible barrier effect arising from the proposed development.

This point also applies under the next item, item 3.

3. Review of the Applicant'sNIS Addendum/Errata Document II and EIS Addendum / Errata to Chapters

The Department acknowledges and welcomes the additional clarification and further analysis provided by the Applicant.

3.1 Amended Table 4.24 (NIS) and Amended Table 7.23 (EIS)

In consideration of the absence of an assessment by the Applicant of the "observed impacts of similar developments", a matter which was the subject of previous recommendation by the Department (Dec 2014), a clearand detailed explanation as to how the conclusion presented in Table 4.24/Table 7.23(i.e., "the proposed development will not constitute an effective barrier to the movement of this species")has been formed could usefully be provided. It remains the Department's view that, based on the information provided by the Applicant, reasonable scientific doubt remains concerning the absence of a barrier effect on the movement of harbour seal in the area concerned.

As previously recommended by the Department, the permanent loss of aquatic habitat of harbour seal should be assessed in view of Conservation Objective Attribute and Target 5 for the species (i.e., Disturbance - Human activities should occur at levels that do not adversely affect the harbour seal population at the site). The Comment section of this Amended Table could then usefully be revised.

3.2 NIS Addendum/Errata Appendix 2: Section 10.7.2 Construction Phase

The National Parks & Wildlife Service is referenced twice (p10-71, 10-72) with regard to certain methods being subject to agreement prior to the construction period. The Department would suggestthat such agreement be made with the relevant planning authority.

4. Review of the Applicant's Brief of Evidence concerning marine mammals (by Dr C.Peppiatt)

4.1 Section 4: Seal Survey Work

On page 6, the Brief of Evidence states:

"While approximately 50 Harbour Seal were recorded in the area during an exceptional sprat run over winter 2010-2011, vantage point watches for birds and cetaceans at the site have shown that the usual number of seals using the bird study area (which encompasses the site of the proposed development) is in the range of from 0 to 5."

These observations and the additional raw seal survey data presented by the Applicant are of importance in that (i) they indicate that a modest proportion of the harbour seal population inhabiting the Galway Bay area may, at least occasionally, be found to occur in the area proposed for development, and (ii) they establish that small numbers of harbour seals have been regularly observed during on-site bird surveys carried out in daylight hours over a period of years (2011-2014).

What is unclear however, is whether the same individual animals return to the site on a regular basis or whether the numbers of harbour seals regularly observedin the areaproposed for development actually represent a higher and significant proportion of the population inhabiting Galway Bay. Use of the area by harbour seals during the hours of darkness is also unclear at present. In the absence of more detailed data on aquatic habitat use by harbour seal within Galway Bay, the possibility that there is some greater throughput in harbour seal use of the area cannot be ruled out.

4.2 Section 7: Visual Cetacean Surveys

Page 8: It is assumed that the concluding statement to this section (i.e., "thus potential impacts due to habitat loss and construction/operating disturbance would not be expected to be [of] significance") is made in view of the impact mitigation, monitoring and environmental management proposals presented by the Applicant but a clarification by the Applicant would be useful in this regard.

4.3 Section 10: Predicted Impacts and Proposed Mitigation

Page 15, second last paragraph: The original source of the statement that cetacean ears may be more resistant to hearing damage than those of land mammals could usefully be provided for information purposes as it does not accord with the Department's understanding of the subject. The issue of marine noise and its reception by and impact on coastal and marine species is of course important in the context of understanding the potential impacts arising from the proposed development.

Page 15, last paragraph: The Applicant could usefully amend and cite the hearing-sensitive frequency ranges given for dolphins and porpoise. It is the Department's understanding that such species can hear signals up to or in excess of 120-150kHz, significantly higher than the figures presented.

Page 17, 1st paragraph: In the eventuality that dead or injured seals or cetaceans do occur in the inner Galway Bay area during the proposed period of construction, it is unclear to the Department what further action, if any, will be taken by the Applicant or the planning authority to respond to such an event or events. This aspect of the proposed mitigation/environmental management for the project should be clarified.

Page 18, Impacts on Marine Mammals due to barriers to habitat connectivity within the SAC: The Department notes that a Permanent Minor Negative Impact arising from the harbour extension is concluded in the absence of mitigation. However it is the Department's view that the mitigation proposed (i.e., a proposed "wildlife pass" for Otter and possibly seals) to reduce this negative impact to "not significant" is currently conceptual and supporting evidence for its efficacy in reducing the barrier effect is not provided by the Applicant. Consequently a permanent negative effect as originally concluded in the Brief of Evidence cannot be discounted.

13c

Galway Harbour Extension

Oral Hearing

(PA0033)

AN BORD PLEANÁLA
TIME 10.10 BY NPWS
1 8 JAN 2015
LTR-DATED JM FROM
PA0033

Brief of Evidence

Julie Fossitt

Department of Arts, Heritage and the Gaeltacht

I am Julie Fossitt, and I have an Honours B.A. in Natural Sciences, specializing in Botany, from Dublin University, Trinity College, 1987, and a Ph.D. (1990) and post-doctorate research experience in Botany from Cambridge University. I am a full member of the Chartered Institute of Ecology and Environmental Management. I have 20 years of experience working as an ecologist in Ireland, and am the author of the Heritage Council's publication, 'A Guide to Habitats in Ireland' (2000). I have worked in my current post as Divisional Ecologist in the Western Division of the National Parks and Wildlife Service, now of the Department of Arts, Heritage and the Gaeltacht, for 12 years.

I refer to the Department's previous submissions of 11/03/14 and 05/12/14 to An Bord Pleanála, and specifically, in this case, to the observations in respect of terrestrial and coastal habitats. I also refer to the following:

1. The original NIS and EIS for the proposed development;
2. The response to the Request for Further Information, including the NIS Addendum/Errata and appendices, and the EIS Addendum/Errata and appendices (October 2014);
3. The NIS Addendum/Errata Document II (January 2015);
4. The EIS Addenda/Errata to Chapters document (January 2015);
5. The 'Response to Observations and Recommendations made by Department of Arts, Heritage and the Gaeltacht to An Bord Pleanála on 11th March 2014' (January 2015);
6. The 'Response to Observations and Recommendations made by Department of Arts, Heritage and the Gaeltacht to An Bord Pleanála on 5th December 2014' (January 2015);
7. The 'Witness Statement for Oral Hearing - Dr Micheline Sheehy Skeffington' (January 2015).

The Department previously advised the Board that more detailed information was required in respect of terrestrial and coastal habitats in the receiving environment; specific reference was made to Annex I habitats to the east of the proposed development. A map or drawing that shows the location, extent and inter-relationships of coastal Annex I habitats in the pre- and post-storm[1] scenarios is still lacking, and this has implications for the clarity and completeness of the information before the Board.

The Annex I terrestrial and coastal habitats in question are: Perennial vegetation of stony banks, Atlantic salt meadows (Glauco-Puccinellietalia maritimae), and Mediterranean salt meadows (Juncetalia maritimi). All are qualifying interests of Galway Bay Complex cSAC (site code 000268), and occur in association with or near the Annex I priority habitat, Coastal lagoons.

The Board was also advised that a focused assessment of the likely significant effects of the proposed development on coastal Annex I habitats was required, and that it should be carried out

[1] 2013/14 winter storms

with specific reference to the relevant attributes and targets of the site specific conservation objectives. While attributes and targets for these habitats are listed in various tables in the above reports, e.g. Amended Tables 4.19-4.21 of the NIS Addendum/Errata document (October 2014), the assessment and analysis that were undertaken to arrive at the conclusions within the column 'comment on potential impact on attribute/target' are not clear. In addition, it is noted that there is a discrepancy between Amended Table 4.19, as mentioned above, and Amended Table 4.14 of the same document, in respect of the extent of permanent loss of 'Perennial vegetation of stony banks' habitat; the basis for reaching the figure of 0.18ha of permanent habitat loss in Amended Table 4.14 is not substantiated by supporting evidence or analysis.

On the basis of the above, and the Department's previous submissions, the conclusions in respect of the implications for the conservation objectives of these Annex I habitats remain unclear.

13D

Galway Harbour Extension

Oral Hearing

(PA0033)

AN BORD PLEANÁLA
TIME 10:10 BY NPNS
15 JAN 2015
LTR-DATED LM FROM
PL PA0033

Brief of Evidence

Julie Fossitt

Department of Arts, Heritage and the Gaeltacht

I am Julie Fossitt, and I have an Honours B.A. in Natural Sciences, specializing in Botany, from Dublin University, Trinity College, 1987, and a Ph.D. (1990) and post-doctorate research experience in Botany from Cambridge University. I am a full member of the Chartered Institute of Ecology and Environmental Management. I have 20 years of experience working as an ecologist in Ireland, and am the author of the Heritage Council's publication, 'A Guide to Habitats in Ireland' (2000). I have worked in my current post as Divisional Ecologist in the Western Division of the National Parks and Wildlife Service, now of the Department of Arts, Heritage and the Gaeltacht, for 12 years.

I refer to the Department's previous submissions of 11/03/14 and 05/12/14 to An Bord Pleanála, and specifically, in this case, to the observations in respect of terrestrial and coastal habitats. I also refer to the following:

1. The original NIS and EIS for the proposed development;
2. The response to the Request for Further Information, including the NIS Addendum/Errata and appendices, and the EIS Addendum/Errata and appendices (October 2014);
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6. The 'Response to Observations and Recommendations made by Department of Arts, Heritage and the Gaeltacht to An Bord Pleanála on 5th December 2014' (January 2015);
7. The 'Witness Statement for Oral Hearing - Dr Micheline Sheehy Skeffington' (January 2015).

The Department previously advised the Board that more detailed information was required in respect of terrestrial and coastal habitats in the receiving environment; specific reference was made to Annex I habitats to the east of the proposed development. A map or drawing that shows the location, extent and inter-relationships of coastal Annex I habitats in the pre- and post-storm[1] scenarios is still lacking, and this has implications for the clarity and completeness of the information before the Board.

The Annex I terrestrial and coastal habitats in question are: Perennial vegetation of stony banks, Atlantic salt meadows (Glauco-Puccinellietalia maritimae), and Mediterranean salt meadows (Juncetalia maritimi). All are qualifying interests of Galway Bay Complex cSAC (site code 000268), and occur in association with or near the Annex I priority habitat, Coastal lagoons.

The Board was also advised that a focused assessment of the likely significant effects of the proposed development on coastal Annex I habitats was required, and that it should be carried out

[1] 2013/14 winter storms

with specific reference to the relevant attributes and targets of the site specific conservation objectives. While attributes and targets for these habitats are listed in various tables in the above reports, e.g. Amended Tables 4.19-4.21 of the NIS Addendum/Errata document (October 2014), the assessment and analysis that were undertaken to arrive at the conclusions within the column 'comment on potential impact on attribute/target' are not clear. In addition, it is noted that there is a discrepancy between Amended Table 4.19, as mentioned above, and Amended Table 4.14 of the same document, in respect of the extent of permanent loss of 'Perennial vegetation of stony banks' habitat; the basis for reaching the figure of 0.18ha of permanent habitat loss in Amended Table 4.14 is not substantiated by supporting evidence or analysis.

On the basis of the above, and the Department's previous submissions, the conclusions in respect of the implications for the conservation objectives of these Annex I habitats remain unclear.

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AN BORD PLEANÁLA
TIME 10.15 BY NPWS
15 JAN 2015
LTR-DATED JH FROM
PL PA0033

Strategic Infrastructure Development application to An Bord Pleanála (Reg No. PL61.PA.0033) for Galway Harbour Extension Oral Hearing

Marine Annex I habitats

January 2015

David Lyons

Department of Arts, Heritage and the Gaeltacht

I am David Lyons and I am a marine ecologist with the Department of Arts, Heritage and the Gaeltacht. My academic qualifications include a BSc Honours in Marine Science from University College Galway and PhD in marine zoology from National University of Ireland, Galway. I have worked as a professional ecologist since 2001 and have worked as a marine ecologist for the Department since 2003. In that time I have had a significant role in examining and providing observations on behalf of the Department in relation to development in the marine environment likely to have an interaction with conservation features.

I would like to note that through previous correspondence to the Board, this Department has indicated a consistent position in relation to the development and extension to Galway Harbour. It has recognised since the initial application that the proposed development was likely to have a significant effect on the conservation of Natura sites within the vicinity of the development. We have now reviewed further information circulated to the Board during the oral hearing for Galway Harbour Extension and have the following additional points to make.

1. It is not contested by the proponent that Annex I marine habitat noted as Qualifying Interest for this site is present within the location of the proposed construction. Nor is it disputed that this area would be permanently lost. The habitat as found during extensive surveys by the applicants would be typical of similar estuarine environments in close proximity to a large outflow of freshwater adjacent to urban development. It is indicated by the applicants that the habitat found within the area of construction would be categorised as a complex habitat with areas of *Mudflat and sandflat not covered by seawater at low tide* and *Reef*. The total area of loss as a result

of the proposed development would be 5.93 hectares as recognised in the supporting information. It is acknowledged by the Department that the exact quantification of each habitat as it presents in this location cannot be accurately evaluated due to its intermingled nature. It is the position of the Department of Arts, Heritage and the Gaeltacht that this loss of habitat would undermine the conservation objectives for Galway Bay Complex cSAC. Both of the recognised habitats within the vicinity of the construction are Qualifying Interest habitats for this designated site. The conservation objectives for this site have been published by NPWS (2013). In relation to both the *Mudflats and sandflats not covered by seawater at low tide* and *Reef* the primary conservation objective target is that "the permanent habitat area is stable or increasing, subject to natural processes". It is clear that this objective will be undermined by the proposed development.

2. It is recognised that the proposed development in subtidal areas would not occur within Qualifying Interest marine Annex I habitat for this cSAC. This subtidal habitat has been identified as estuarine in nature by the EPA and as such it does not conform to the recognised habitat of *Large Shallow Inlet and Bay.* It has been clearly demonstrated by the proponents that there is a low likelihood of interaction of activities that would be planned subtidally with adjacent Annex I marine habitats, except those that will be directly lost within the footprint of the development.

3. The Department welcomes the revised documentation circulated by the proponent. It is a matter of concern that the revised Natura Impact Statement concludes that:

"The proposed Galway Harbour Extension was found to have the potential to directly impact two Natura sites i.e. Galway Bay cSAC and SPA. The impacts are the permanent loss of qualifying interest habitats and the potential impact on certain species arising from this loss, but the effects are not considered to be significant on either of the NATURA sites. However, adopting the precautionary principal and on the basis that it cannot be said without reasonable scientific doubt that the impacts would not be significant, for the purpose of this assessment, such habitat loss and impact is being treated as significant".

It should be noted that the two sites referenced for clarity are respectively Galway Bay Complex cSAC and Inner Galway Bay SPA. The use of language could be improved to increase the clarity of the proponent's conclusion. This Department has previously stated in a submission to the Board that there is a need for a clear and precise conclusion to the appropriate assessment for the proposed development, particularly with a view to its potential consideration under Article 6(4) of the Habitats Directive. It is thus beneficial to any potential further processes to definitively conclude the Article 6(3) procedure with a clear conclusion as to how the proposed development will affect the conservation objectives for the Natura sites. This Department would again state the proposed development would undermine the published conservation objectives for the site as it would result in the direct loss of 5.93hectares of marine Annex I habitats as a direct result of the proposed development.

References

NPWS (2013). Conservation objectives: Galway Bay Complex SAC 000268. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Series editor: Rebecca Jeffrey. ISSN 2009-4086.

AN BORD PLEANÁLA
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PL PA0033

Galway Harbour Extension Project

Strategic Infrastructure Development

An Bord Pleanala

Oral Hearing

January 2015

Dr Yvonne Leahy

Department of Arts, Heritage & the Gaeltacht

My name is Dr Yvonne Leahy and I am a marine ecologist with NPWS. My background is I have a degree in Zoology from NUI Galway and a Ph.D. from there in the Ecology of marine communities and in particular on the ecology of the salt lake in Clifden. My post-doctoral work was undertaken in the Institute of Marine Biology of Crete, I have worked with the Department of the Marine as a marine ecologist and I was the benthic ecologist with the Marine Institute before taking up my current position. Within this department I work on the marine Annex I habitat of Coastal Lagoons.

These are a priority habitat under the Habitats Directive. Priority Habitats are those habitats recognised by the Directive as being in danger of disappearing within the EU Member States.

For the benefit of this hearing the term "no conservation value" should be clarified. This term "no conservation value" as it applies to Lough Atalia is derived from Inventory of Irish Coastal Lagoons (Oliver, 2007)[1] which was commissioned by this Department. This value was assigned to the lough due to the low numbers of lagoonal specialist species found during the sampling of the lagoon in 2006 and to its polluted state at that time.

Lough Atalia is a brackish, shallow water body partially separated from the sea by its rock sill, its restricted tidal flow along with the presence of lagoonal species clearly identifies it as a coastal lagoon.

The conservation objective[2] for this habitat at this site has as its goal "To restore the favourable conservation condition of Coastal lagoons in Galway Bay Complex SAC" and the implications of the development need to be considered in view of this conservation objective.

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[1] Oliver, G. (2007) Inventory of Irish coastal lagoons (version 2). Unpublished report to the National Parks and Wildlife Service.

[2] Conservation Objectives Series, Galway Bay Complex SAC 000268, Version 1, 16 April 2013, Department of Arts, Heritage and the Gaeltacht.