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NH 237

BirdWatch Ireland
 protecting birds and biodiversity
 An Bord Pleanála

64 Marlborough St.
 Dublin 1

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February 5th 2018

Re: Strategic Housing Planning Development at St. Paul's, Raheny, Dublin. An Bord Pleanála - 300559-18

Joint Submission by BirdWatch Ireland and the Irish Brent Goose Research Group

BirdWatch Ireland and the Irish Brent Goose Research Group makes the following points in relation to the above-mentioned planning application. We are acutely aware of, and sensitive to, the national need for sustainable housing solutions especially in the context of the serious homelessness issue in Ireland. However, we have significant concerns in relation to the planning application at the site at St. Pauls which will result in the loss of foraging habitat for Light Bellied Brent Goose as well as other species of conservation interest.

BirdWatch Ireland notes that there are other proposed developments at this site subject to planning applications through Dublin City Council and that these are associated with the proposed housing development. We are concerned that the overall development has been split into three parts and believe that they should be assessed together as one application.

1.0 The Importance of the proposed development site for Light Bellied Brent Goose

The Conservation Objectives for the 5 SPAs within 15 km of this development (North Bull Island, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary, Rogerstown Estuary, and Baldoyle bay) list the importance of ex-situ factors to the achievement of the Conservation Objectives of these SPAs. The authors of the NIS undertook survey work as well as desktop analysis of other data in relation to the location and importance of ex-situ sites for Brent geese. The identification of these sites in the NIS is an excellent contribution to the overall understanding of how Brent use these sites in Dublin. However, caution should be taken with the the research in that this should be seen as the start of the journey to understand the science relating to usage of sites in Dublin and not the end.

1.1 St Paul's is an extremely important terrestrial feeding site for East Canadian High Arctic (ECHA) Light-bellied Brent Geese (*Branta bernicla hrota*); the authors classify 8 sites (of 119 inland feeding sites) as being of major importance within the last 5 years. Removal of just one of these sites will result in the displacement of upwards of 12.5% of the population (~1500 geese). We conclude that is an unacceptably high proportion of the population to be expected to be displaced to and absorbed within the existing network of sites and not in keeping with the conservation objectives of adjacent European protected sites

1.2 The report notes that over 50% of the ringed birds in SPA areas have also been resighted at the St Paul's site. This suggests that although the peak count is between 1000-1500 there is a large majority of the Dublin population feeding at this site. Given the proximity to the main Bull Island roost, it seems likely that St Paul's acts an important corridor to the other inland foraging sites that are further away from the North Bull SPA. By removing habitat at this site the range of terrestrial foraging habitat becomes increasingly fragmented, making it harder for the geese to move between resources and meet their daily energy demands;





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- 1.3 While the report suggests that there is a degree of flexibility in the selection of preferred feeding patches (no doubt there is an element of this to enable birds to adapt to changes in resource availability, disturbance levels etc) there is evidence (Figure 9 of the NIS) of some individuals showing a high degree of fidelity to St Paul's. Undertaking annual return migrations of ~5000km to repeatedly return to the same relatively small foraging area (6 out of 10 years) likely indicates a successful survival strategy – it is possible that St Paul's (for reasons we have not detected / measured) is a superior feeding site. There is no evidence indicating that the loss of this demonstrably important site will not have individual- or population-level consequences (e.g. through reduced survival, reduced reproductive output etc). We would urge caution regarding the risk of any interpretation that the availability of alternative suitable inland feeding (whether currently utilised or not) suggests the loss of one is of little consequence. **We suggest this need to be established beyond doubt.**
- 1.4 The apparent variation between years in the usage of St Pauls may be an artefact of surveying regime employed rather than demonstrating a high degree of flexibility. Numbers of birds utilising sites varies widely with many factors including *inter alia* season, time of day, weather, tidal state and disturbance levels.
- 1.5 The authors list various 'protective policies and objectives' of the local authorities in Appendix F which underpin their conclusion that 'when applied by the planning authorities, ensure that the overall potential network of inland feeding habitat for Brent geese, which encompasses a total of 150 sites (i.e. 124 known and 26 potential inland feeding sites) in the Dublin area, will be maintained. The availability of these potential sites would ensure that there will be adequate capacity in the potential network to absorb the loss of St. Paul's in-combination with the potential loss of the other 11 inland feeding habitat sites. This conclusion is problematic due to the assumptions and contradictions within it.

We are concerned at the increasing levels of threat to the existing suite of terrestrial foraging sites. These sites are *ex situ* to the designated sites and must be considered critical to maintenance of the Brent Goose population as an SCI for several SPAs in the area and need therefore to be protected.

Appendix F lists the 'Protective Policies and Objectives' of Dublin City Council, Fingal County Council and South Dublin County Council in their Development Plans. The first thing to note is the lack of coherent language in relation to the protection of ex-situ sites implying potentially different methods of interpretation and outcomes from these policies. There is no overall coherent strategy for the protection of ex-situ site sites for Brent geese though these species do not know what county boundaries are. Secondly, one must ask if the 'protective policies and objectives' are actually working. Are the ex-situ sites really protected? The authors list the AA conclusions of the Development Plans of the relevant local authorities which states that the protective policies and objectives incorporated into each development plant will avoid or reduce the potential for impacts on the integrity of Natura 2000 sites occurring. Yet, we are aware of recent approvals for astro-turf all-weather pitches replacing playing pitches which results in direct habitat loss. In addition, some amenity grassland areas are already actively using measures to scare geese.

Appendix E of the NIS is a spreadsheet showing land zoning for all known and potentially suitable inland feeding sites for Brent in the Greater Dublin area. The authors highlight the sites of Major importance to Brent (as outlined in the list of sites and their ranked importance in Appendix A) and list the zoning as well as any



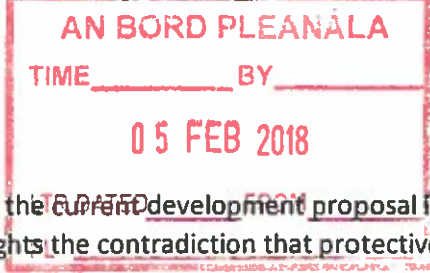
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development proposals for those sites. Firstly, it is essential to note that the current development proposal is itself a challenge to the 'protective policies and objectives' and so highlights the contradiction that protective policies are in place to protect the sites.

If one goes through the list of sites and the pending or granted planning applications, one can see that the site at Santa Sabina School is a Major site almost adjacent to the North Bull SPA, a proposal for 96 houses being considered for planning permission following on from the previous granting of permission for 81 houses. This is a blatant example of how the current 'protective policies and objectives' as listed by the authors are not working.

If one were to highlight the sites of High Importance for Brent in this spreadsheet, one could identify 2 other sites (Finglas/Erin's Isle GAA and Finglas/Scoil Earcain) with planning permission granted which will result in the loss of feeding habitat for Brent. Also, another site of High importance is at St. Patrick's Drumcondra where a planning application is currently being considered for which will result in loss of this site for Brent.

How many of these 119 available sites will continue to be available to the geese? Can they support and maintain the numbers displaced from St Paul's? The authors rely on these protective policies and objectives to conclude that there will be no significant impact on populations of Brent Geese but this reliance is not founded in reality as the pressure on these sites is increasing and habitat has already been lost.

1.6 Research carried out by members of the Irish Brent Goose Research Group has shown that winter habitat quality is (as it is in many other migrants) a key driver of reproductive success¹². The presence of a species – i.e. occupying a habitat patch for example – is different from habitat choice. Thus the wider range of sites are utilised out of necessity rather than choice – they are functional (provide food) but they may carry disadvantages that make them sub-optimal – such as have poorer resources (with subsequent effects on adult and juvenile body condition, survival and reproductive output), have poorer access to resources (reduced feeding rates and loss of feeding time due to disturbance for example) and/or be more energetically costly to visit etc. In this population we also know that the population trend is driven mostly by variation in productivity. It follows that the loss of favoured (optimal) selected feeding areas (such as St Pauls appears to be) may thus have particular negative consequences for this population

It has been shown that family groups of Light-bellied Brent Geese switch to feeding on terrestrial sites as the winter progresses due to the juveniles being less efficient at foraging on the more-profitable marine resources (Inger et al. 2010)³. By doing this the adults end the winter in poorer condition and are less likely to breed again the following year. In addition to this cost of raising a family, when the geese switch to terrestrial areas before it is necessary, they are also exposing themselves to the increased levels of disturbance that are generally present

¹ Cleasby IR, Bodey TW, Vigfusdottir F, et al. (2017) Climatic conditions produce contrasting influences on demographic traits in a long-distance Arctic migrant. *Journal of Animal Ecology*, 86(2):285-295. doi:10.1111/1365-2656.12623. 130

² Harrison XA, Hodgson DJ, Inger R, Colhoun K, Gudmundsson GA, McElwaine G, Tregenza T, Bearhop S. (2013) Environmental conditions during breeding modify the strength of mass-dependent carry-over effects in a migratory bird. *PLoS One*, Oct 15;8(10):e77783. doi: 10.1371/journal.pone.0077783

³ Inger, R., Harrison, X. A., Ruxton, G. D., Newton, J., Colhoun, K., Gudmundsson, G. A., McElwaine, G., Pickford, M., Hodgson, D. and Bearhop, S. (2010), Carry-over effects reveal reproductive costs in a long-distance migrant. *Journal of Animal Ecology*, 79: 974–982. doi:10.1111/j.1365-2656.2010.01712.x



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- at the terrestrial sites. If the important terrestrial sites begin to vanish due to developmental pressures the geese will have reduced options to find less disturbed sites. The geese may seem habituated to humans in Dublin but there is no research showing what the effects of disturbance/proximity to humans are on the survival, fitness or fecundity of this species. The potential combined costs of feeding on sub-optimal inland sites along with the gradual disappearance due to development pressures of currently important inland sites is unknown.
- 1.7 Regarding disturbance, just because an apparent reaction to disturbance doesn't occur e.g. just because the geese seem habituated to humans doesn't mean they are not affected in terms of their overall survival or fitness⁴. Disturbance is an issue that deserves more scrutiny within this NIS. Gill et al note that 'In particular, species that do not avoid disturbance and are thus assumed not to be vulnerable, for example, the herons, egrets, and pelicans in a Florida nature reserve (Klein et al., 1995) and pochard (*Aythya marila*), tufted duck (*A. fuligula*) and goosander (*Mergus merganser*) on inland waters in the UK (Tuite et al., 1984), could potentially be worthy of equal or greater concern than those that clearly avoid human presence. If the aim is to maintain or increase the numbers of animals using a site, then assessing whether disturbance causes birds to leave would be an appropriate methodology. However, in order to assess the impact of disturbance on population size and the relative susceptibility of different species, future studies need to address how behavioural changes in response to disturbance affect demographic parameters such as survival and reproductive success'. In addition, Gill (2007)⁵ outlines that Behavioural responsiveness to disturbance is thus not sufficient to determine vulnerability to human presence, as the same responses can result from directly opposing circumstances. Studies of vulnerability must therefore quantify the fitness consequences of responses to disturbance in order to avoid this problem. Research is about to get underway on this subject on Brent Geese populations in Ireland.
- 1.8 In summary, whilst recognising the detailed work undertaken on ECHA Brent Geese as part of this planning assessment, we consider the very significant loss of habitat to be of major concern for this species and to have an unacceptably high probability of negatively impacting the conservation objectives of the adjacent designated sites. There is no evidence that there will be no negative impact. To suggest that these birds are flexible and will simply move elsewhere is simplistic and is especially weak given the recent pattern of development (all representing habitat loss) in the area.

The NIS concludes that there will be no significant impact on the population trend or range of Light Bellied Brent Goose associated with the SPAs in the Greater Dublin Area but we challenge this position as the authors have not provided evidence that there will be no future negative impact and also fail to consider the nuances of the ecology of the species. The proposed removal of the site at St Paul's as an ex-situ site for foraging Brent geese and the presentation of potential alternative foraging sites that the Brent may resort to does not satisfy the requirement that 'beyond reasonable scientific doubt' there will be no impacts on the species as the proposal that the species will use alternative sites does not hold up and nor is there evidence that the loss of St. Pauls will not be detrimental in its own right considering its importance.

⁴ Gill, J., Norris, K., Sutherland, W., (2001), Why behavioural responses may not reflect the population consequences of human disturbance *Biological Conservation* 97.

⁵ Gill, Jennifer (2007), Approaches to measuring the effects of human disturbance on birds, *Ibis* (2007), 149 (Suppl. 1), 9-14



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2.0 Failure to Assess Impacts of the Development on other Species of Conservation Interest

2.1 The NIS for the proposed development at St. Pauls presents information on the impacts of the proposed development on Light Bellied Brent Goose populations which use the site to forage. The NIS does not assess the impacts of the development on the other Species of Conservation Interest for which 5 SPAs have been designated in the Greater Dublin Area. In particular we note that in the Environmental Impact Assessment Report that during the 2015-2016 wintering bird surveys, the other Special Conservation Interest species (of the European sites located within the zone of influence of the proposed development) that were observed feeding on the proposed development site were :

- Black-headed gull *Chroicocephalus ridibundus* (maximum of 69 birds on the 22nd December 2015),
- Black-tailed godwit *Limosa limosa* (maximum of 400 birds on the 5th January 2016),
- Curlew *Numenius arquata* (maximum of 86 birds on the 22nd December 2015) and
- Oystercatcher *Haematopus ostralegus* (maximum of 58 birds on the 5th January 2016),

	1% National	1% International	Survey results	Date
Black-tailed Godwit	190	610	400	05-Jan-16
Black-headed Gull	n/a	20,000	69	22-Dec-15
Curlew	350	8,400	86	22-Dec-15
Oystercatcher	690	8,200	58	05-Jan-16

2.2 The numbers of Black-tailed Godwit at the site exceeds the national threshold making this site an important national site for this species. Black-tailed Godwit is a species listed in Annex 1 of the Birds Directive and is Amber Listed as a Bird of Conservation Concern in Ireland 2014-2019⁶.

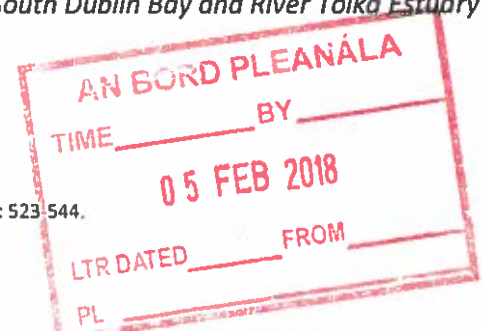
Article 6 (3) of the Habitats Directives requires that "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives"⁷. Objective 1 of the Conservation Objects of the North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA⁸ is: *To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA* .

⁶ Colhoun, K. & Cummins, S. (2013) *Birds of Conservation Concern in Ireland 2014 -2019*. Irish Birds 9: 523-544.

⁷ EU Habitats Directive 92/43/EEC

⁸

[https://www.npws.ie/sites/default/files/publications/pdf/North%20Bull%20Island%20SPA%20\(004006\)%20Conservation%20objectives%20supporting%20document%20-%20\[Version%201\].pdf](https://www.npws.ie/sites/default/files/publications/pdf/North%20Bull%20Island%20SPA%20(004006)%20Conservation%20objectives%20supporting%20document%20-%20[Version%201].pdf)





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One of the factors that can adversely affect the achievement of Objective 1 includes Ex-situ factors. The Conservation Objectives document states: 'Ex-situ factors: several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat change or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers (for further information on this topic please refer to Section 5.2)'.
In addition, it is crucial to point out that Article 4(4) of the Birds Directive⁹ states that:

"In respect of the protection areas referred to in paragraphs 1 and 2, Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats."

The NIS should have included an assessment of the impact of the proposed site for other SCIs noted during the survey work especially for Black-tailed Godwit and since the numbers noted exceeded the national threshold.

The failure to assess the impacts of the proposed development on Black-tailed Godwit and the other SCIs of the SPAs means that the NIS is incomplete.

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⁹ EU Birds Directive 2009/147/EEC