



BirdWatch Ireland submission to An Bord Pleanála re the Construction of the Boyne Greenway Drogheda to Mornington, Co. Meath & Co. Louth

September 10th 2020

1.0 Introduction

BirdWatch Ireland staff have reviewed the documentation supplied for the application to An Bord Pleanála for the development of a pedestrian and cycle greenway between Drogheda and Mornington, Co Meath along the Boyne estuary and to the coast.

BirdWatch Ireland supports national and local efforts to bring employment through tourism activities to rural Ireland at a time when it needs it badly. In addition, we support initiatives to reduce fossil-fuel propelled car journeys and therefore reduce greenhouse gas emissions as well as initiatives to encourage healthy living and exercise amongst citizens. However, it is very important that greenway proposals can guarantee no significant impacts upon the waterbirds and other bird and wildlife species that use the habitats along any proposed greenway route. Because the Boyne Greenway poses a significant threat to the bird life in the Boyne Estuary SPA, we object to this development.

The main focus of our submission is on the potential significant impacts on the avian and habitat conservation interests of the Natura 2000 sites impacted by the proposed Boyne greenway. This is our second submission on this greenway. It is clear that no heed was given to the information we provided, or clarifications sought, in our submission to the route selection consultation in 2019. The same issues we raised in 2019 therefore still stand.

The proposed greenway includes 2.4km on a boardwalk within the Boyne Estuary Special Protection Area (SPA) and the Boyne Coast and Estuary Special Area of Conservation (SAC) with 610m in the intertidal zone of the SPA. The boardwalk will be supported by posts piled into the habitats underneath. The materials for the greenway include bituminous surface and recycled materials where the boardwalk is elevated.

2.0 Issues of Concern

Of significant concern to BirdWatch Ireland is that 2.4kms of the greenway is proposed within the boundary of the Boyne Estuary SAC and SPA and adjacent to the River Boyne and River Blackwater SAC with 610m over intertidal habitat. The greenway therefore poses a significant threat to the avian conservation interests in these sites, as well as to some of the habitats. These threats include the threat of disturbance from the users (pedestrians, cyclists, people with dogs, anti-social behaviour by people) of the greenway day and night which could also cause displacement of these species and impact the integrity of the Natura 2000 network.

The Boyne Estuary SPA is an internationally important and designated site for waterbirds and wetlands. Wintering waterbirds have experienced a 15% decline in 5 years¹. More alarming is the comparison over a longer time period, which shows that our wintering waterbirds have declined by almost 500,000 individuals (40%) since the mid-1990's, a truly shocking finding. 'Total numbers have declined by 138,160 (15%) since the 2006/07-2010/11 period, with waders experiencing the largest declines; the combined totals of 15 wader species having declined by over 19%.

Burke et al state "Climate change is likely a significant factor is affecting total numbers of wild bird populations as well as causing the shifts in range.... However, this should not mask the many local pressures faced by wintering waterbirds. In Ireland, many waterbirds are vulnerable to recreational disturbance, habitat modification and loss, and potential impacts from increased aquaculture and renewable energy developments, each of which has the potential to lower survival rates and total numbers of their respective Irish and flyway populations as a result".

2.1 Presentation of information and lack of information

2.1.1 Maps and exact route

The presentation of the exact route of the greenway and where it overlaps with the relevant SACs and SPA is very unclear. It would have been useful if the engineering reports (Alignment Sheets) showed exactly where the structure crossed the Natura 2000 site.. The boundary for the SPA appears to abut or overlap the greenway on the Statutory Instrument of 626/2011². Clarification on this point is needed as it is critical to determine how much 'land take' is proposed. In addition, in relation to SI 626/2011 the consent of the Minister for Heritage is required as this development is an Activity Requiring Consent.

2.1.2 Pedestrian and cyclist numbers

No information is provided on the projected number of people (pedestrians, cyclists, walkers with dogs) who may use this proposed greenway. This is important in any assessment of the scale of disturbance to wild birds using the Boyne Estuary SPA, or to the dune habitats which are close to the end of the greenway. The greenway could in effect funnel thousands of people onto 'priority' dune habitats in order to access the seashore.

2.1.3 Description of the route as it relates to the Natura sites

The documents called the Proposed Alignment Key Plan provides the detailed information on the route and structure of the greenway and its location. Our main concerns with the proposed greenway begin at the eastern end of Proposed Alignment Sheet 7 where the greenway is proposed to be sited within a few metres of the SPA east after the Flogas buildings and to the north after the entrance to the treatment plant through to Proposed Alignment Sheet 14/15 and again at 15/16 and onwards.

In Alignment Sheets 7-15 we are unclear exactly how much of the SPA will taken in this section. SPA maps viewed on the National Biodiversity Data Centre website indicate that the proposed greenway runs adjacent to the greenway from 8-11/12 where in 12 the greenway cuts into the SPA.

¹ Burke, B., Lewis, L. J., Fitzgerald, N., Frost, T., Austin, G. & Tierney, T. D. (2018) Estimates of waterbird numbers wintering in Ireland, 2011/12 – 2015/16. Irish Birds No. 41, 1-12.

² European Communities (Conservation of Wild Birds (Boyne Estuary Special Protection Area 004080)) Regulations 2011

2.2 Ornithological Survey Work and Assessment of Impacts to Bird Populations in the Boyne Estuary SPA

2.2.1 Inadequate Survey Work of Avian Interests

The Natura Impact Statement outlines the survey work that was undertaken to inform the assessment under Article 6.3 of the Habitats Directive.

The waterbird survey work comprised 12 days of survey work – <u>but during the month of March 2018 only</u> – which is at the very end of the wintering period, and when many species may have already started to leave the site to return to breeding grounds. Survey work (12 days) should have been undertaken across the winter period Oct – March. The submitted late winter distribution would not adequately show waterbird distribution across a site, as this changes as a winter season progresses in relation to changing prey availability (prey depletion) and other factors such as weather. Furthermore, little attention was given to the identification and location of waterbird roosts sites and how these may be affected by the proposed greenway. Overall, and for a project of this scale with proposed encroachment into the SPA then baseline work undertaken during March only is considered wholly inadequate.

There is also no mention or attempt to look at species site trends e.g. using I-WeBS data. Several species that are conservation interests are in decline as evidenced by the most recent IWeBs report (Burke, et al 2019).

Conservation Interest At Boyne Estuary SPA	Short Term Change in population estimates between 2006-2007 & 2010-2011 (all of Ireland)	Long Term in population estimates between 1994/95- 98/99 (all of Ireland)
Oystercatcher (Haematopus ostralegus) [A130]	-21.2	-7.9
Golden Plover (Pluvialis apricaria) [A140]	-23.5	-43.6
Grey Plover (Pluvialis squatarola) [A141]	-5.8	-54,3
Lapwing (Vanellus vanellus) [A142]	-16.4	-67.2
Knot (Calidris canutus) [A143]	-42.2	-43.3
Sanderling (Calidris alba) [A144]	13.2	34.9
Black-tailed Godwit (Limosa limosa) [A156]	4.2	44.9
Redshank (Tringa totanus) [A162]	-23.6	-19.2
Turnstone (Arenaria interpres) [A169]	-20.6	-28

Figure 1 Data taken from Burke et al of changes in population estimates of selected waterbird species relevant to the Boyne Estuary SPA

2.2.2 Conclusions drawn from survey work

The NIS authors' calculations showing the 2018 counts as a proportion (%) of the SPA baseline population size is misleading in that the site population sizes will have changed. Some species may now occur at the site in higher numbers, while some species may have decreased in number at the site (see Fig 1). Given the known waterbird population declines nationally (see above) it is likely that at least some species now occur at the Boyne estuary in lower numbers than during the baseline period. An additional calculation comparing March counts against the recent 5-year mean obtained though I-WeBS counts would have been useful. Caution is required when evaluating the information presented. It is our view that the inadequacy of the survey work and assessment means that it is not possible to conclude with complete, precise and definitive findings that there will be no significant adverse effects on the conservation interests of the Boyne Estuary SPA.

2.2.3 Assessment of Disturbance Impacts

Steven and others (2011) in Le Corre et al³ consider that 88 % of the papers found that nature-based recreation has negative effects on birds. Navedo et al found that allowing recreational use in a previously undisturbed area can systematically increase daily energy expenditure of significant percentages of different waterbird populations during high tide, and even cause birds to avoid a site completely⁴.

Considering that the underpinning survey work and lack of consideration of I-WeBS data is inadequate and not representative, the follow-on assessment of disturbance impacts on conservation interests is likewise inadequate and not representative.

Minimum Approach Distance (MAD) assessments for disturbance were presented. The authors quote Livezey et al. (2016) approach to MADs which has a 42.2m distance for Charadriiformes, increased to a threshold of 50m which includes a short buffer. The Livezey paper is a summary of a database where, for example, the MAD of 71m used for Anseriformes is an average of 21 species from around the world. While useful, it is questionable how applicable a mean calculated on 'world' data is to an estuary where so many factors are different. It would have been useful if a literature review had been undertaken, collating MAD distances for the species in question at the Boyne, from estuaries in northwest Europe, and then a conservative approach taken. The Livezey paper itself states that 'an advantage in using this database is that if a MAD needs to be estimated but there are no data for the species in question, data may be sorted to use taxonomically related or ecologically similar species to help inform the decision'. i.e. the database is meant to be used as a reference, rather than the average MAD distances as presented in the paper.

In addition, we have further concerns in relation to the use of the Livezey et al study for the purpose of assessing disturbance impacts of the proposed greenway at the Boyne. The consultants only present the 42.2m distance for waders as it relates to the impacts from pedestrians, whereas Livezey also gives a MAD of 68.8m distance for waders as it relates to impacts from dogs. A recent study found that consistent recreational use of shorelines particularly by dogs has a negative impact on waterbird numbers (Stigner et al. 2016)⁵. Livezey also does not include a distance for impacts from cyclists. Furthermore, there is no predicted distance which could account for the cumulative impacts of all forms of disturbance that could occur as a result of the operational Boyne greenway. Livezey et al. do not present information on the numbers of users (i.e. pedestrians, cyclists, dogs etc) which could change the MAD. Using 1 MAD for the suite of waterbirds is insufficient and together with our point above, the Livezey paper should be seen as a reference only. More thorough research on the impacts upon each of the conservation interests should have been provided, taking into account the conservation status of each.

The survey work that was conducted found significant numbers of specific conservation interest species within the MAD threshold with Redshank and Black-tailed Godwit as well as Shelduck having greatest numbers inside the Minimum Approach Distance assessment.

³ Le Corre et al (2013) Wintering Waterbirds and Recreationists in Natural Areas: A Sociological Approach to the Awareness of Bird Disturbance. *Journal of Environmental Management*

⁴ Navedo, Juan G., & Herrero, Alejandro G., (2012) Effects of recreational disturbance on tidal wetlands: supporting the importance of undisturbed roosting sites for waterbird conservation. *Journal of Coastal Conservation*. 16:373–381

⁵ Stigner, M.G., Beyer, H.L., Klein, C.J. & Fuller, R.A. 2016. Reconciling recreational use and conservation values in a coastal protected area. *Journal of Applied Ecology* 53: 1206-1214.

In the following paragraph in the Ecological Impact Assessment report, the authors state that

"The greatest risk of disturbance is for Black-tailed Godwit at subsite OVLO2, where there is the potential for 10.62% of the population in the SPA (measured against the baseline population of 471 birds). Furthermore, the risk model suggests that 17.62% of the SPA population may be susceptible to disturbance on the surveyed subsites. However, it should be noted that during fieldwork, the maxima recorded for Black-tailed Godwit for the five subsites collectively was 945 birds (more than double the total baseline population for the SPA). This is a reflection of birds moving between subsites on different count days, and effectively being counted in more than one day. When considering habitat availability, data indicates that there are undisturbed habitats available to (and being used by) Black-tailed Godwit that exceeds the number of birds recorded on the subsites during fieldwork. Furthermore, Gill et al. (2001) determined that Black-tailed Godwit may not be affected at the population level at a site by disturbance if there are plenty of foraging areas, which our data suggests is the case in the Boyne Estuary. Thus, effects at a population level can be reasonably excluded".

This rationale is particularly weak especially when based on bird count data from March only, and with no baseline macroinvertebrate data (benthic survey) to determine the available prey base. There is again no mention of the fact that the 'baseline' population may be very different now, and no mention of the species' national status and trends. We do not agree with the assertion in the NIS that this is a complete, precise or definitive finding.

In relation to the impacts of disturbance on other species present, the

The ECIA states "Data in Table 4.6 above shows that no Oystercatcher or Golden Plover were recorded within the likely zone of effect for disturbance and can therefore be excluded from the consideration of likely significant impacts from the proposed development. For the remaining species (i.e. Shelduck, Lapwing, Black-tailed Godwit and Redshank), some birds are present within the potential area where disturbance could occur (i.e. inside the MAD).

In relation to this same point, the NIS states that "The results indicate that Oystercatcher and Lapwing were only recorded in small numbers in any of the adjacent subsites to the Greenway, with a maximum of 0.6% of the baseline Boyne Estuary Oystercatcher population (in OVL02) and 1.9% of the Lapwing population (in OZL02). Up to one-fifth of the baseline Boyne Estuary SPA populations of Shelduck (22% in OZL03) and Redshank (20.6% in OVL02) were recorded, with higher proportions of Black-tailed Godwit (up to 86.4% of the baseline population level in OZL05).

Despite inadequate survey work, the results/assessments during the month of March 2018 show that significant proportions of site (baseline) population have the potential to be disturbed due to the proximity of the greenway. While the focus on the conclusions is on Black-tailed Godwit, the findings in relation to the other species (especially in relation to Redshank) are glossed over and not resolved.

The use of the MAD of 50m for waders does not allow for consideration of the nuance on the actual distance of the avian interests from the greenway. Tabular data is not provided of the number of species and their activity and where they are exactly located in relation to the greenway but numbers and location are provided in the 90 subsite survey maps. Significant numbers of birds which are also conservation interests (i.e. Redshank, Black-tailed Godwit, Lapwing) are found between 0-20m, 20-40m from the greenway where it enters the SPA and very significant numbers of non-conservation interest species are also found in these areas especially Teal. The proximity of the proposed greenway to these species is particularly concerning. Study of these maps also demonstrates the intensity of use of these areas.

Besides the focus on the Conservation Interests of the site and disturbance impacts there is no assessment of impacts on the additional species found at this site including Curlew which is nationally a 'red listed' breeding and wintering species of conservation concern, threatened with extinction and is globally declining holding 'near threatened' status.

In addition, there is no description presented or assessment of the existing baseline disturbance (Ecological Impact Assessment, pg 64) even though this is referenced as the benchmark to rule out disturbance to waterbirds.

2.2.4 No mention of the Conservation Objectives of the SPA or assessment against those.

The overarching Conservation Objective for Boyne Estuary SPA "is to ensure that waterbird populations and their wetland habitats are maintained at, or restored to, favourable conservation condition". Seven out of the nine waterbird conservation interests of the site are exhibiting declines both in the short term and long term nationally, with some showing extremely alarming declines (i.e. Lapwing -67% long term declines). The NIS does not list the Conservation Objectives of the SPA and in particular that the proposed greenway could impact upon the objective 'No significant decrease in the range, timing or intensity of use of areas by the waterbird SCI species, other than that occurring from natural patterns of variation'.

The Boyne Estuary SPA Supporting Document states:

Conservation Objective 1

To be favourable, the long-term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.

To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.

Factors that can adversely affect the achievement of Objective 1 include:

- Habitat modification: activities that modify discrete areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or a reduction in their numbers.
- Disturbance: anthropogenic disturbance that occurs in or near the site and is either singular
 or cumulative in nature 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.

The NIS does not reference these detailed conservation objectives of the Boyne Estuary SPA. In particular BirdWatch Ireland is very concerned that the disturbance impacts from users of the site, potentially running into the hundreds per day within if not more, will result in the displacement of waterbird species, and therefore impact upon this conservation objective.

⁶ http://datazone.birdlife.org/species/factsheet/eurasian-curlew-numenius-arquata

To understand whether there could potentially be a 'significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest' would necessitate a thorough understanding of waterbird usage of the Boyne Estuary. This understanding cannot be achieved by assessing bird usage in the month of March only (as point above). Furthermore, just because waterbirds do not use areas of an estuary during a survey, does not mean that they do not use these areas at other times. Waterbirds move throughout winter and even daily, in response to changing prey densities, prey availabilities, tide levels, and many other factors such as temperature and weather, as well as flock size/number of conspecifics etc.. - many factors are at play. To class areas as unimportant because they do not appear to support birds, is erroneous; equally erroneous is to suggest that there is 'plenty of alternative available habitat', without knowing the habitat quality in terms of a waterbird's requirements.

Conservation Objective 2:

To be favourable, the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 594 ha, other than that occurring from natural patterns of variation

The wetland habitats can be categorised into three broad types: subtidal; intertidal; and supratidal. Over time and though natural variation these subcomponents of the overall wetland complex may vary due to factors such as changing rates of sedimentation, erosion etc. Waterbird species may use more than one of the habitat types for different reasons (behaviours) throughout the tidal cycle.

For the species of Special Conservation Interest, the scope of Objective 1 covers the need to maintain, or improve where appropriate, the different properties of the wetland habitats contained within the SPA.

There is approximately 2.4km of proposed greenway within the SPA/SAC areas with approximately 610 metres of this within the intertidal zone. This amounts to 9,600m of land removed from the SPA and the SAC. This is not insignificant habitat loss and by reducing the SPA area that is available for birds to use, constitutes a significant negative impact upon conservation objective 2.

Overall therefore, we believe that the significant habitat change brought by the physical presence of the greenway in the SPA, as well as the potential for significant disturbance has not been adequately assessed within the NIS. It is our view that the presence of the greenway within the SPA is absolutely not in line with conservation objectives of the site and that the disturbance will be detrimental to already severely declining populations of a range of waterbird species.

2.2.5 Terrestrial feeding adjacent to the estuary

There is no mention of terrestrial feeding areas adjacent to estuary – how important this is to waterbirds and what the impacts will be as a result of the proposed greenway.

The Supporting Document of the Boyne Estuary SPA 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.

2.2.6 Failure to assess impacts upon other species within the SPA

In the European Court of Justice ruling in Case C-461/17 Brian Holohan and Others v An Bord Pleanála, the first ruling states:

Article 6(3) of [the Habitats Directive] must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

It is our view that the range of bird species that frequent the Boyne Estuary SPA as well as being identified should have been examined for implications of the proposed development on these species. This includes species which are migratory including Light Bellied Brent Goose, Dunlin, Greenshank and Teal, and some of which are globally threatened i.e. Curlew. The NIS/EcIA does include a full list of species identified and where they were foraging and roosting, but no assessment was undertaken for these species.

The Supporting Document for the Boyne Estuary SPA states "It should be borne in mind that a single wetland site seldom meets all the ecological requirements of a diverse assemblage of waterbirds (Ma et al. 2010). Although some waterbird species will be faithful to specific habitats within the SPA, many will at times also use habitats situated within the immediate hinterland of the site or in areas ecologically connected to the SPA. These areas may be used as alternative high tide roosts, as a foraging resource or, be simply flown over, either on migration or on a more frequent basis throughout the non-breeding season as waterbirds move between different areas used (e.g. commuting corridors between feeding and roosting areas)".

2.3 Other issues of concern

2.3.1 Assessment conclusions for Boyne Coast and Estuary SAC

Significant effects on the Boyne Coast and Estuary SAC were discounted even though land will be 'taken' from the SAC. In some sections of the proposed route the greenway is elevated over habitats with the presumption that this avoids habitat loss but no consideration is given to, or evidence provided, that this will not result in a change in prey communities or changed habitat due to changes in light, growth of different plant communities underneath, flow of water, and consequently availability to the bird species which use the existing habitats for foraging and roosting. Section 6.2.3.3 states that the boardwalk will "avoid any significant landcover change" without describing what potential landcover change could happen. This is not adequate.

The authors rule out significant effects on the conservation interests of the Boyne Coast and Estuary SAC. The Conservation Interests for this SAC are [1130] Estuaries, [1140] Tidal Mudflats and Sandflats [1210] Annual vegetation of drift lines, [1310] *Salicornia* Mud, [1330] Atlantic Salt Meadows [2110] Embryonic Shifting Dunes, [2120] Marram Dunes (White Dunes), [2130] and Fixed Dunes (Grey Dunes) (priority habitat).

The NIS is lacking in detail as to the extent of the construction and operation activities relevant to the habitats in question. It lists activities but no adequate assessment of same against the conservation interests in question.

The authors state that the greenway overlaps several habitats of the SAC but fails to present adequate assessment of the activities listed to occur which could impact these habitats and the integrity of the site. The authors state that for Atlantic Salt Meadow, the quality of the habitat present is not reflected in the habitats cited as Conservation Interests. We assume the authors mean that the habitat is degraded but there is no description of the habitat present to verify this statement. The Conservation Interests of this SAC are mapped in colour in the Boyne Estuary and Coast SAC Conservation objectives supporting document -coastal habitats ⁷. It is clear that there is saltmarsh habitat flanking the southern boundary of the SAC for quite an extent. The Conservation Objectives for this SAC state that the habitat Atlantic Salt Meadow must be maintained. "The target is that there should be no decline or change in the distribution of these saltmarsh habitats, unless it is the result of natural processes, including erosion, accretion and succession". The national status of Atlantic Salt Meadow is 'inadequate – deteriorating' (NPWS, 2019⁸). Where this Annex I habitat has been degraded within a SAC, the objective should therefore be to restore the habitat, not further degrade the habitat.

The board walk will be supported by posts pile driven into the habitats beneath according to the Outline Construction Methodology report included in the documentation. The report states that 'Long column type elements typically 100mmby 100mm square are installed into the underlying ground at regular intervals acting as mini piles. The mini piling will be installed using reduced noise equipment in accordance with best practice'. The number of posts, their installation and the effects of the posts have not been described or assessed.

It is extraordinary that the authors have ruled out no significant effects even though they also clearly state that there will be land take of habitats within the SAC as a result of the greenway.

An ecological walkover was conducted in April 2018 but there is no comprehensive description of habitats and species. Indeed, the authors acknowledge that this was not the optimum time for a botanical survey in any case. Therefore, we feel there has been inadequate assessment of the effects of the greenway construction upon habitats of the Boyne Coast and Estuary SAC.

2.3.2 Impacts of Sea Level rise and Climate Change

The report Impacts of Sea-level Rise on the Birds and Biodiversity of Key Coastal Wetlands by Crowe et al (2013)⁹ states that "A major consequence of future SLR, storm surges and other sources of flooding for coastal birds seems likely to be the changes caused to their habitat structure and quality. Intertidal habitats and open coast are expected to be the coastal habitats that are most vulnerable to these factors". The proposal to build a greenway in the SPA not only takes 9600m of land from the SPA but results in further squeezing of the habitat available to the birds in the future under a changed

⁷ NPWS. (2012b) *National Parks and Wildlife Service Conservation Objectives: Boyne Coast and Estuary SAC 001957* (Issue Version 1.0). National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

⁸ NPWS (2019) The status of EU protected habitats and species in Ireland. Volume 1. Summary Overview. Unpublished NPWS Report.

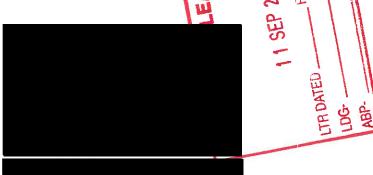
⁹ Crowe, O., Lewis, L., Anthony, S., (2013) Impacts of Sea-level Rise on the Birds and Biodiversity of Key Coastal Wetlands BirdWatch Ireland report to the Environmental Protection Agency.

climate especially in sections which may be seen as rank habitats within the SPA currently. This is not acceptable.

In relation to lighting the construction report states that "No lighting is anticipated in the first instance, as the boardwalk section will likely only be used during daylight hours." However, it is our view that people will walk in the winter hours after dark. Impacts on birds feeding at night close to the greenway have not been taken into account

Conclusion

In 2019 the IPBES stated that one million species were threatened with extinction¹⁰ and there have been countless reports of the grim reality for biodiversity globally. In this submission, we have outlined the dire state of waterbird populations in Ireland which is caused by human activities. The elected members of the Oireachtas declared a climate and biodiversity emergency on May 9th 2019. The 2019 Article 17 report by the NPWS to the European Commission on the Status of Habitats and Species states that 85% of EU protected habitats in Ireland have unfavourable or inadequate status. This together with the alarming declines of waterbird species, means that extreme care should be taken in evaluating proposals such as the Boyne greenway. BirdWatch Ireland is not supportive of this development due to the potential for significant disturbance to important waterbird species of the Boyne Estuary SPA.



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¹⁰ https://ipbes.net/news/million-threatened-species-thirteen-questions-answers