

**From:** [Dominika Phillips](#)  
**To:** [Hornsea Project Three](#); [Kay Sully](#); [KJ Johansson](#)  
**Cc:** [Andrew Guyton](#); [Stuart Livesey](#)  
**Subject:** Hornsea Project Three (UK) Ltd response to Deadline 3 (Part 7)  
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**Attachments:** [image001.png](#)  
[D3\\_HOW03\\_Appendix 14\\_Markhams\\_Triangle.pdf](#)  
[D3\\_HOW03\\_Appendix 15\\_The Wash.pdf](#)  
[D3\\_HOW03\\_Appendix 16\\_NF\\_Ornlithology\\_Roadmap.pdf](#)  
[D3\\_HOW03\\_Appendix 17\\_Age class data.pdf](#)  
[D3\\_HOW03\\_Appendix 18\\_Kuhn et al. CIGRE 2016.pdf](#)  
[D3\\_HOW03\\_Appendix 19\\_Order Lim\\_amend.pdf](#)

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Dear Kay, K-J

Please find attached the seventh instalment of documents.

Best regards,  
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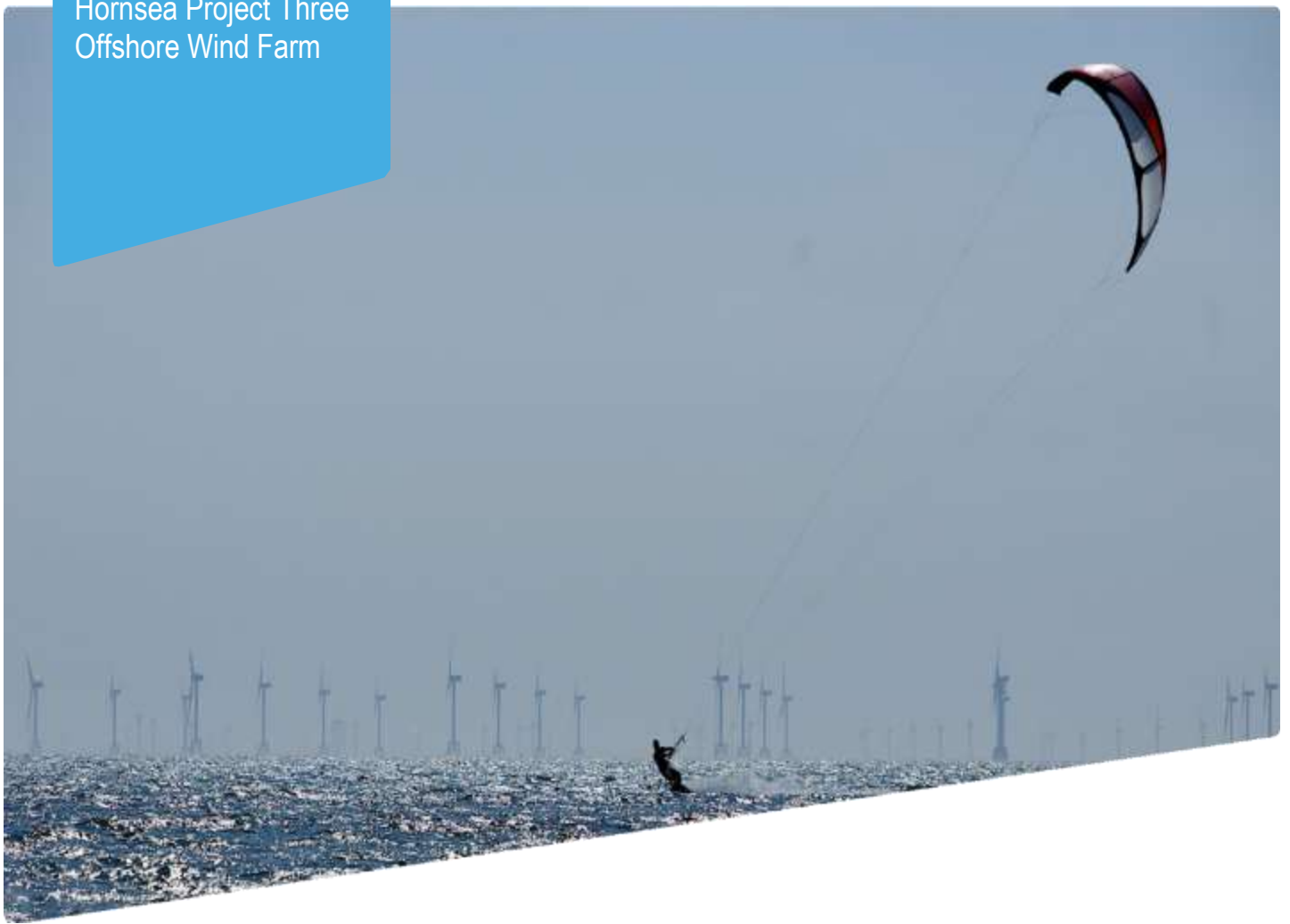
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Hornsea Project Three  
Offshore Wind Farm



## Hornsea Project Three Offshore Wind Farm

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### Appendix 17 to Deadline 3 Submission - Age class data

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**Date:** 14<sup>th</sup> December 2018

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## Table of Contents

1. Age class data .....	3
Gannet .....	4
Kittiwake .....	5
References .....	6

## List of Tables

Table 1.1: Monthly age class data for gannet collected as part of aerial surveys across Hornsea Three .....	4
Table 1.2: Monthly age class data for kittiwake collected as part of aerial surveys across Hornsea Three .....	5

## 1. Age class data

- 1.1 This clarification note presents age class data collected during aerial surveys undertaken across Hornsea Three plus a 4 km buffer. These data were collected as part of aerial surveys undertaken between April 2016 and November 2017 across Hornsea Three plus a 4 km buffer.
- 1.2 As part of their Deadline 1 submission, the Applicant submitted age class data that were used to support the assessments presented in the RIAA as requested by Natural England in their Relevant Representations (Appendix 3 to the Applicant's submission at Deadline 1 (REP1-169)) (i.e. data from boat-based surveys). Age class data from aerial surveys were not used as part of the assessments presented in the RIAA.
- 1.3 Table 1.1 and Table 1.2 present breeding season age class data for gannet and kittiwake respectively using the seasonal definitions advocated by Natural England. It is not possible to age puffin during aerial surveys as the defining features for first year puffins (the only age class that can be distinguished from adult birds during surveys) is not visible in aerial survey data (a dark face). It is not possible to age guillemot or razorbill (with the exception of juveniles birds which are not incorporated into the apportioning approach in the breeding season) using any survey approach as immature birds are indistinguishable from adult birds.
- 1.4 The Applicant does not agree with the seasonal definitions advocated by Natural England which are taken from Furness (2015). These definitions are not considered to be relevant to the population of birds occurring at Hornsea Three and are different to those previously advised by Natural England for use at other projects in the former Hornsea Zone (see Natural England's submissions to Deadline 3 and Deadline 5 during the Hornsea Project Two examination). In contrast, the seasons defined by the Applicant utilise survey data collected at Hornsea Three and other offshore wind farms to define the movements of birds through the area where impacts will occur.
- 1.5 However, without prejudice to the Applicant's position on seasonal definitions, in order to respond to Natural England's request and to facilitate further dialogue with Natural England, age class data is presented in this report using the following seasons which are based on the UK breeding seasons for each species as defined in Furness (2015):
  - Gannet = March to September; and
  - Kittiwake = March to August.
- 1.6 It should be noted that age class data from aerial surveys were not used as part of the apportioning approach applied in the RIAA for the following reasons:
  - Small sample sizes when compared to the data available from boat-based surveys;
  - Inability to age birds on the water;
  - A considerable body of scientific evidence (presented in RIAA Annex 3: Phenology, Connectivity and Apportioning for features of FFC pSPA (APP-054) indicating that the apportioning values obtained from aerial surveys did not reflect the population structure of birds at Hornsea Three.

## Gannet

Table 1.1: Monthly age class data for gannet in breeding season months collected as part of aerial surveys across Hornsea Three

Survey	Adult	Immature	Juvenile	Unaged
April 2016	19	0	0	85
May 2016	3	1	0	26
June 2016	7	0	0	23
July 2016	10	6	0	60
August 2016	2	2	0	14
September 2016	3	12	0	10
March 2017	11	0	0	52
April 2017	3	0	0	5
May 2017	3	1	0	17
June 2017	5	0	0	8
July 2017	34	3	0	53
August 2017	37	33	3	128
September 2017	1	22	0	91

### Kittiwake

Table 1.2: Monthly age class data for kittiwake in breeding season months collected as part of aerial surveys across Hornsea Three

Survey	Adult	Immature	Juvenile	Unaged
April 2016	261	1	0	504
May 2016	173	9	0	254
June 2016	20	1	0	62
July 2016	172	1	0	926
August 2016	25	4	0	103
March 2017	101	22	0	129
April 2017	60	0	0	87
May 2017	50	12	0	294
June 2017	19	13	0	72
July 2017	100	5	0	117
August 2017	63	5	4	27

## **References**

Furness (2015). Non-breeding season populations of seabirds in UK waters. [Online]. Available at: <http://publications.naturalengland.org.uk/publication/6427568802627584> (Accessed May 2015).

SmartWind (2015). *Hornsea Project Two. Environmental Statement Volume 5 – Offshore Annexes. Annex 5.5.1 Ornithology Technical Report*. [Online]. Available at: <https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/hornsea-offshore-wind-farm-zone-4-project-two/?ipcsection=docs> (Accessed September 2018).