

ONSHORE AND OFFSHORE ORNITHOLOGY

**ORSTED HORNSEA PROJECT THREE (UK) LIMITED (FERRY ROAD, HARTLEPOOL)
COMPULSORY PURCHASE ORDER 2023**

STATEMENT OF EVIDENCE

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1 Qualifications and experience

- 1.1 I am a Technical Director at NIRAS Group (UK) Limited with 38 years' experience in ornithological monitoring and impact assessment, chiefly studying waterbirds and seabirds in the employment of universities, NGOs, UK Government agencies and consultancies.
- 1.2 I hold a Master's degree from the University of Durham by written thesis assessing the potential impact of tidal power barrage on waterbirds. I also hold a Bachelor of Science in Applied Biology from Coventry (Lanchester) Polytechnic. I am a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).
- 1.3 Since 1989, I have been monitoring the waterbirds and seabirds of Teesmouth and Cleveland Coast Special Protection Area that covers parts of the coast and adjacent areas of Hartlepool. The initial 20 years of monitoring was undertaken in a professional capacity as an ornithologist at the University of Durham and thereafter the Wildfowl & Wetlands Trust and RPS. Subsequent years of monitoring has been conducted in a voluntary capacity, whilst project managing in a professional capacity the monitoring of breeding kittiwake since 2021 of the Seaham to Staithes coast on behalf of Orsted Hornsea Project Three (UK) Ltd (the "**Acquiring Authority**").
- 1.4 Since 1996, I have been participating in annual expeditions for the surveillance of breeding seabirds of the Treshnish Isles SPA, Argyll, by Treshnish Isles Auk Ringing Group (www.tiarg.org), which I've led since 2009. This has included the surveillance of breeding kittiwake.
- 1.5 For the past eleven years, I have professionally specialised on the assessment of the potential impacts of offshore wind farms on birds, both in the intertidal and offshore environment.
- 1.6 Specific career experience includes providing ornithological advice on the following UK offshore wind farm projects:
- (1) Walney Extension;
 - (2) London Array;
 - (3) Galloper;
 - (4) Race Bank;
 - (5) Burbo Bank Extension
 - (6) Moray West
 - (7) Revised Seagreen Phase 1
 - (8) Rampion 2
 - (9) Sofia
 - (10) Dogger Bank A & B; and
 - (11) Hornsea Projects One, Two, Three and Four

- 1.7 I have acted on behalf of the Acquiring Authority as technical advisor on issues relating to onshore and offshore ornithology, during the pre-application consultation phase, post application phase and examination phase of the consenting process for Hornsea Project Three Offshore Wind Farm (hereafter “**Hornsea Three**”). Following the latter’s consent, I initially proposed to the Acquiring Authority and since have been the ornithological technical lead on the provisioning of ANSs as a compensation measure for the potential impacts of Hornsea Three, and more recently Hornsea Project Four Offshore Windfarm.

2 Introduction

- 2.1 The Acquiring Authority obtained planning permission on appeal to construct two types of artificial nesting structures (ANS) for kittiwake *Rissa tridactyla* at the Old Yacht Club, Hartlepool (hereafter “the **Site**”), as a compensation measure for the potential impacts of Hornsea Three. The ANS will cumulatively provide nesting opportunities for up to 1,384 breeding pairs of kittiwake.
- 2.2 The purpose of my Statement of Evidence is to address the concerns raised in the PD Ports’ objection from an ornithological perspective. The likelihood of impact on the future operations of PD Ports, from increasing the number of kittiwakes as a result of the creation of the ANSs and consequence of the Compulsory Purchase Order, is assessed in the context of current breeding status of kittiwake on Hartlepool Headland and the species ecology and behaviour.

3 Context to the species and its population at Hartlepool

- 3.1 Urban nesting gulls: large gulls and kittiwake
- 3.1.1 Kittiwake are one of three species of urban nesting gulls, the other two being ‘large gulls’, the herring gull *Larus argentatus* and lesser black-backed gull *Larus fuscus* (Figures Figure 3.1 -Figure 3.3). However, the ecology and behaviour of Kittiwake to the herring and black-backed gulls are quite different and their breeding places in the urban environment are very different. In consequence, the potential impacts from kittiwake and the two large gull species differ.



Figure 3.1 Kittiwake, breeding adults at nest (R.M.Ward)



Figure 3.2 Lesser black-backed gull, breeding adult at nest (NIRAS)



Figure 3.3 Herring Gull, adult (NIRAS)

3.2 Urban nesting gulls: potential impacts

3.2.1 Large urban nesting gulls can cause a variety of problems including:

- a) noise nuisance;
- b) fouling by droppings and regurgitated food can be a nuisance on pathways, cars and property e.g. safety hazard if gull faeces make surface slippery for walking;
- c) litter and mess from scavenging open litter bins or open skips from which gulls are obtaining food;
- d) attacks on a person by parent birds;
- e) physical presence of nest interfering with the intended use of supporting structure;
- f) blockage of gutting, pipes and gas flues caused by droppings and debris from nests; and
- g) stealing food from people.

- 3.3 Urban nesting gulls: difference in species and behaviour
- 3.3.1 **Herring gulls and lesser black-backed gulls** nest on roofs and chimneys, and the former are present in the urban environment, such as Hartlepool Headland, all year round. Both these species are very protective of their offspring in the breeding season. At such time, they will aggressively dive and swoop on people in proximity to the nest or chicks that have fallen out of the nest to the ground. Both large gulls are quick to exploit alternative food sources such as food waste in open skips and litter bins. They will swoop down at or near people from whom they sometimes attempt to take food.
- 3.3.2 **Kittiwakes** are a small offshore ('pelagic') species of gull that feed only on marine fish and invertebrates foraged at sea or fish discards from trawlers. Kittiwake do not take human food and rubbish. They are not associated with behaviours such as swooping at humans unless a person is interfering with a nest containing chicks or eggs. Kittiwake are colonial breeders, with nests in urban environments located on narrow ledges (e.g. window and building ledges) and external lighting fixtures. Kittiwake are present on Hartlepool Headland solely for the breeding season (March - August).
- 3.3.3 In summary, from the above described behaviour, it can be confirmed kittiwakes are not associated with the problems listed in section 3.2 under c, d, f and g. The issues listed in section 3.2 under a, b and e are considered further below.
- 3.4 Kittiwake breeding on Hartlepool Headland
- 3.4.1 Orsted conducted surveys of kittiwake breeding on Hartlepool Headland during the summers of 2021, 2022 and 2023. The surveys were conducted from vantage points without accessing PD Ports property, so there may be more nesting birds on buildings not visible from outside the dock area. Figure 3.4 shows the locations and number of breeding birds in the port areas in 2021. There were 310 apparently occupied nests (AONs) of kittiwake recorded in the port area, with trends showing numbers are increasing year on year (Figure 3.5).

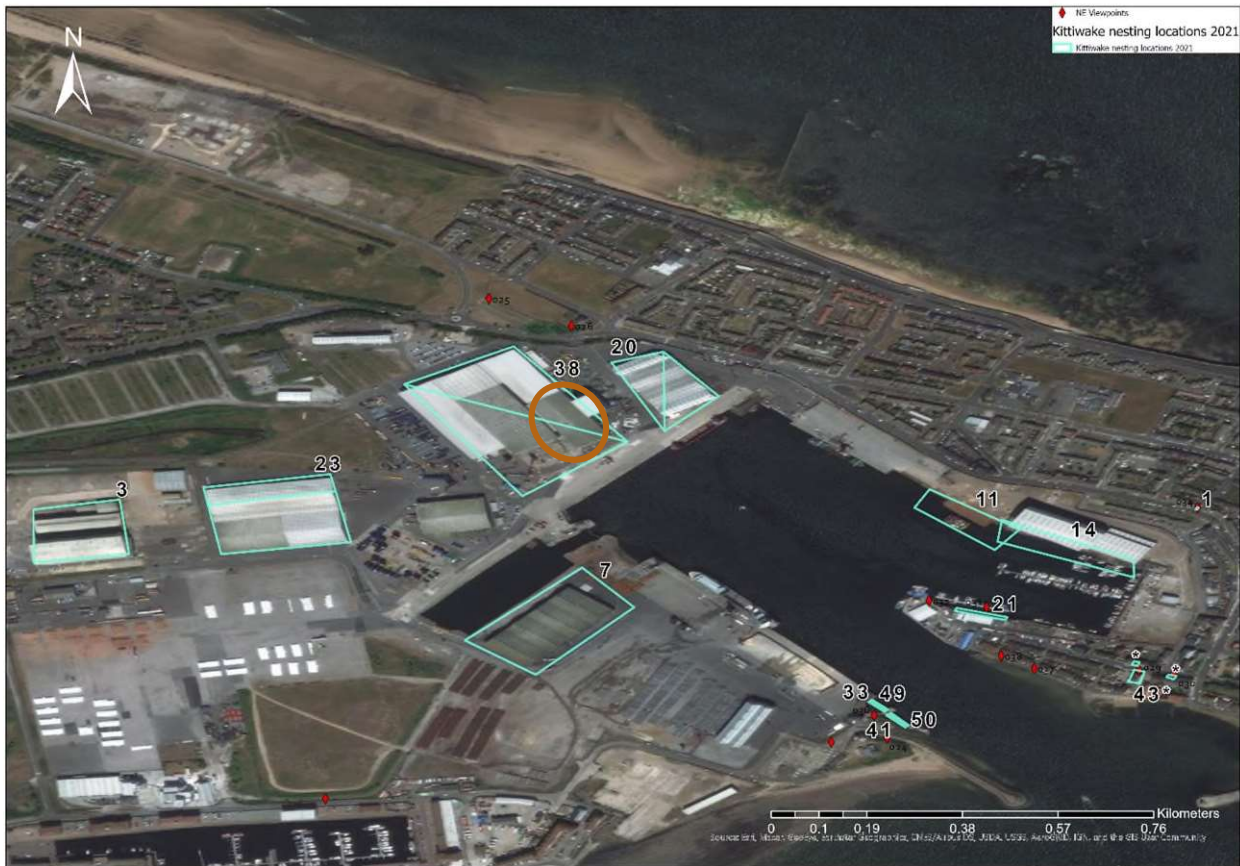


Figure 3.4, Map showing nesting locations of kittiwake and counts of apparently occupied nests on 18 June 2021. Note, building locations are approximations from vantage points outside PD Ports land. Kittiwake were observed nesting on buildings on most light fittings, on crane supports, on drainage pipes and ledges above doorways and on the side of a pontoon, as well as on the bridges by the lifeboat station and some residential streets. The orange circle shows an area where a colony of large gulls were observed nesting on the top of the roof of some of the JDR buildings (a rough estimate of 54 herring gull and 7 lesser black backed gulls were seen but this was a casual observation not a full census count).

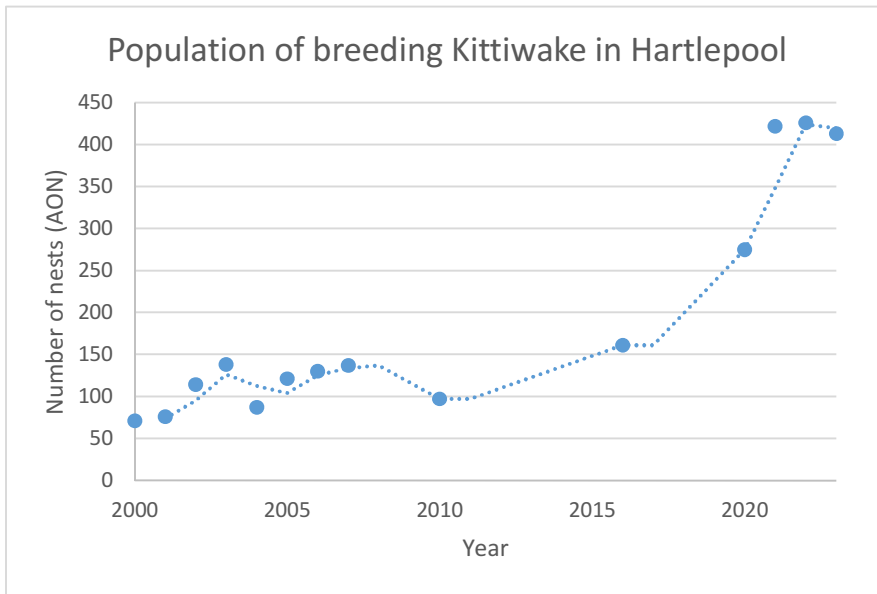


Figure 3.5. Graph showing the population trend of breeding kittiwakes in Hartlepool (including; the Headland, Dock areas and Steetley pier)

4 Concerns raised

4.1 Were alternative sites considered close to Hornsea Three?

- 4.1.1 The Statement of Evidence of Eleni Antoniou sets out the site selection process, exploring many areas under constrained project timescales, and how the Acquiring Authority selected the strongest ecological location, that was technically feasible to construct, and where planning permission and land rights were obtained. I will therefore elaborate in providing a brief outline of site selection criteria from ornithological terms, parameters key to providing the most immediately profitable solution in attracting prospecting Kittiwake to a location to breed.
- 4.1.2 A critical ornithological requirement in the selection process was proximity of the site to existing small sub colonies, ideally <1 km i.e. within visible range. An average of 89% of Kittiwake chicks move away from their natal colony to breed elsewhere, where from only 1.2% relocate from in a subsequent breeding season (Horswill & Robinson 2015). Such high site fidelity and attractiveness to prospective breeders occurs where productivity is good and the population is increasing, which if not, an increasing number of established breeders relocate. A higher preference was therefore given to sites closer to expanding existing colonies as these are likely to provide the most immediately profitable solution. The perfect location being within 1 km of a small (<2,000 pairs) existing colony.
- 4.1.3 A second critical factor is close proximity to the open coast, ideally within <100 m or where the site has a direct view of the sea. Higher preference was given to sites with frontage directly on to tidal waters. Close to the coast but sites on tidal rivers were also considered where existing birds are known to nest or transit further upstream. To optimising success, the species known dispersal patterns steered a high preference for the site being located within 100 km of Flamborough & Filey Coast (FFC) Special Protection Area (SPA), to maximise upon the likelihood of natal dispersal exchange from the ANSs, a key objective of the compensation measure. Critically, the site needed also to be not close enough i.e. < 56 km, to create additional competition for the same food resources likely to be used by FFC SPA birds. Sites with a lack of natural nesting sites i.e. cliffs, further optimises success.
- 4.1.4 The ornithological necessity of applying these criteria described to the onshore ANS site selection for optimising success, greatly narrowed the availability of alternative sites close to Hornsea Three without consideration of the other constraints on site selection described by Eleni Antoniou.

4.2 How existing port operations may be affected by the two types of ANS

- 4.2.1 Due to the breeding biology of kittiwake, it is unlikely that either of the two types of ANS proposed for the Site will increase in the numbers of breeding kittiwake on PD Ports' property. Kittiwake have a typical life expectancy of 12 years, generally mate for life and having once established a nest, the pair will use the same location to nest year after year. It is therefore unlikely that placing an ANS site near another colony would diminish the existing population of established breeders. However, establishment of a purpose-built nesting structure at the Site, in close proximity to the existing Hartlepool Headland breeding birds, would become increasingly attractive to new breeding birds as the colony develops. The ANS designs have been carefully created to maximise their attractiveness to breeding kittiwake. Moreover, as the nearest ANS is within 40 metres from an existing kittiwake colony on the lifeboat station bridges, they will be a natural extension to an existing colony into which first time breeders seek to be recruited. In addition, the Acquiring Authority intend to further encourage recruitment of birds to the ANSs by using decoy birds to attract initial colonists to the ANSs.
- 4.2.2 The net effect of the ANSs would be to minimise any further expansion of existing clusters of breeding kittiwake on or around PD Ports' property, including the establishment of new breeding sites. The presence of alternative, undisturbed nesting opportunities could also benefit any future measures to deter kittiwake from breeding in the port area. The use of ANSs to reduce conflict in locations where kittiwake have moved into human settlements is advised as part of the International Black-legged Kittiwake Conservation Strategy and Action Plan (CAFF 2020). Similar measures have proven successful mitigation measures at a number of locations e.g. Tyneside (Kittiwakes upon the Tyne 2023), Tromso, Norway (Reiertsen, 2022) and Boulange-Sur-Mer, France (Sauvage 2019). It may therefore be concluded that the establishment of the ANSs breeding colony of kittiwake for which the use of the Site has been considered and dealt with through the planning process, will at worst not add to any existing or future impacts of PD Ports' operations resulting from other existing breeding sites. However at best, for these other existing or potential future such colonies, any negative impact of these on PD Ports' operations will be reduced by the presence of the ANSs.

- 4.2.3 Kittiwakes breeding on the ANSs (and those already breeding within the port and town) will be present in the Hartlepool area solely during the breeding season (late March – early August). During this period, they will forage at sea and be expected to be terrestrially restricted to use of the ANSs, adjacent foreshores and lifeboat jetty where a colony already exists. There is no evidence to support that Kittiwakes venture further inland than the immediate vicinity of their own nest sites when breeding and therefore individuals from the proposed ANSs are highly unlikely to visit areas of the town/port elsewhere. They feed solely on marine prey items so would not be attracted inland to scavenge waste within the town (unlike the larger gull species; section g)). Using GPS tracking technology at multiple colonies around UK waters, a series of large-scale tracking studies of kittiwake (e.g. Cleasby *et al.* 2018, Redfern and Bevan 2014) explicitly confirms the species' spatial distribution when breeding i.e. restricted to the colony and utilizing coastal waters but also travelling considerable distances to foraging areas out at sea. These studies have shown the average distance away from the colony that kittiwake travel when foraging is 56 km (Woodward *et al.* 2018). It may therefore be concluded that PD Ports' operations will not be impacted from the attendance and transit to/from the Site, of kittiwake breeding at the ANSs for which the use of the site has been considered and dealt with through the planning process.
- 4.2.4 A case study from kittiwake nesting in a similar urban environment to Hartlepool can be seen in Lowestoft, Suffolk (M. Swindells Unpublished). Here birds breeding on a pier within the town have had had GPS trackers attached during the breeding season. Tracks show birds commuting from the pier directly out to sea and roosting either on the pier (likely to be at their nest sites) or out at sea. No birds show tracks going inland of the pier. Another such pertinent study is the breeding birds on the Tyne Bridge, in which the GPS tagged kittiwake followed the course of the River Tyne on the way out and the way back rather than taking the shortest distance across land (Redfern and Bevan 2014). It may therefore be concluded that the establishment of the ANSs breeding colony of kittiwake on the Site is very unlikely to result in birds flying over PD Ports' land as the Site is adjacent to the Hartlepool Bay with direct access out to sea.

- 4.2.5 Any kittiwake breeding on the ANSs would be protected from disturbance under the Wildlife and Countryside Act 1981, as are all breeding species of bird (including those on PD Ports land). This legislation makes it is an offence to intentionally disturb, damage or destroy the nest of any wild bird while it is in use or being built. Paragraph 7 of Part 1 of Schedule 14 of The Hornsea Three Offshore Wind Farm Order 2020 (the “**DCO**”) states “*The artificial nest structures must not be decommissioned without written approval of the Secretary of State. The artificial nest structures shall be maintained beyond the operational lifetime of the authorised development if they are colonised, and routine and adaptive management measures and monitoring must continue whilst the artificial nesting structures are in place.*” Any restrictions on development would only apply to the ANSs structures themselves which would not involve any limits to be imposed on PD Ports’ land or access restrictions. Kittiwakes are relatively tolerant to disturbance from human activities, as evidenced by their successful adaption to urban dwelling. An increase in the kittiwake population is not likely to cause any issues beyond those which are already imposed on developments by species already listed as features within the Teesmouth & Cleveland Coast SPA. Away from the breeding colony i.e. when birds are roosting or on the water, there are no environmental legislations for kittiwake which are likely to impact port operations or future developments.
- 4.2.6 The designation thresholds for a Special Protection Area (SPA; the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, & c.) Regulations 2010 (as amended) in England, Scotland and Wales) are 20,000 seabirds or 1% of the Great Britain population which for kittiwake would be around 2,000 breeding pairs (Burnell *et al.* 2023). Considering the scale of the Hornsea Three ANS (able to accommodate up to 1,384 breeding pairs of kittiwakes) it is considered unlikely that they will be designated as a Special Protection Area in their own right. It is acknowledged that the National Planning Policy Framework affords sites required as compensatory measures equivalent protection as the Habitats Sites however the latest joint guidance to competent authorities (February 2021) does not require designation but instead states designation as something that may be required. As set out above the implementation of an ANS would not meet the thresholds for designation.
- 4.2.7 In addition to the risks from the behaviour of kittiwake, a potential risk for consideration is that the creation of new breeding colonies subsequently become protected in their own right. Even if the occupancy rate of the ANSs proved 100% successful the scale of the ANSs population would not be large enough that there would be a significant risk of the ANSs being designated as a Special Protection Area (SPA; the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, & c.) Regulations 2010 (as amended) in England, Scotland and Wales). The population scale would not be large enough to reach the designation thresholds for an SPA (i.e. 20,000 seabirds or 1% of the Great Britain population) which for kittiwake would be around 2,000 breeding pairs.

4.2.8 It is therefore reasonable to conclude that the construction of ANSs for kittiwake at the Site, is unlikely to be the source of or reason for any existing or future potential impacts attributable to urban nesting gull species on PD Ports' property. Numbers of breeding kittiwake in the Hartlepool are increasing naturally, without intervention, and thus the number of birds nesting on PD Ports' infrastructure are also likely to increase. The ANSs would offer a solution to encourage birds to nest in a location away from PD Ports' properties where they are actually less likely to impact port activities.

4.3 Nuisance of guano accumulation

4.3.1 Guano accumulation is only likely to be a major issue at or directly below the nesting structures. As stated in section 4.1 above, kittiwake remain on their breeding colonies and fly directly out to sea to feed. They do not congregate at areas inland of the breeding site, the exception being at natural sites where birds may be seen to pull grass for nest material from immediately on top of their cliff nesting site. Birds breeding on an ANS at the Site would not be expected to roost on the roofs of the adjacent PD Port buildings and residential housing, including that on the Hartlepool Headland. When not roosting at the nest, birds roost in intertidal areas adjacent to their colonies or on the water where guano accumulation is less likely to cause an issue. Locally kittiwake are not observed roosting on buildings / structures in the port or town area away from their immediate nesting sites. The aggregations of birds on the roofs and port compounds are mainly large gulls (namely herring and lesser black-backed gulls) and these are more likely to be causing guano accumulation issues observed away from kittiwake nesting sites.

4.4 ANSs being a focus of public attention and its implication to the public accessing private land

4.4.1 The structures and compound on the Site will not be open to the public. The Acquiring Authority are aligned with PD Ports in that unauthorised human access to the area should be mitigated against. Paragraph 3(b) of Part 1 of Schedule 14 of the DCO states that the Kittiwake Implementation and Monitoring Plan must include "*details of designs of artificial nest sites including ... how risks from ... unauthorised human access will be mitigated*". To reduce the risk of the general public trying to enter the Site, the Acquiring Authority would be willing to provide interpretative boards for the public to be located on the adjacent Hartlepool Headland (where there is existing public access) that overlooks the ANSs, whilst making it clear that there is no public access to the Site itself.

4.5 Establishment of a nature reserve in a location allocated for employment development

4.5.1 The development of the ANSs at the Site are not predicted to impact PD Ports current or future developments (as outlined in the previous section 4.2).

4.6 ANSs being an obstacle to further development of the port

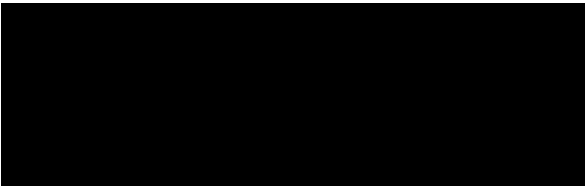
- 4.6.1 For the reasons stated in section 4.2 above, no conflict is predicted between current or future development of the Port and the ANSs at the Site. In fact, the net effect of the ANSs would be to minimise any further expansion of existing clusters of breeding kittiwake on or around PD Ports property, including the establishment of new breeding sites.

5 Conclusion

- 5.1 This Statement of Evidence has assessed the potential impacts that increasing the existing numbers of kittiwake breeding in the area through provisioning of ANSs, may have on PD Ports operations. Unlike its two larger sized urban nesting 'cousins' at Hartlepool, the herring gull and lesser black-backed gull, the kittiwake feeds only at sea and do not take human food and rubbish. Kittiwake are not associated with behaviours such as swooping at humans. The existing breeding population of kittiwake are present on Hartlepool Headland solely for the breeding season (March - August), nesting on narrow ledges. Kittiwake will only forage at sea and be expected to be terrestrially restricted to use of the ANSs, adjacent foreshores and lifeboat jetty where a colony already exists. The numbers of breeding kittiwake in Hartlepool are increasing naturally, and without intervention, the number of birds nesting on PD Port infrastructure is likely to increase. The ANSs offer a solution to encourage the new recruits to nest in a location away from PD Port properties where they are unlikely to impact port activities.

6 Statement of Truth

- 6.1 This statement of evidence has been prepared and provided for this inquiry and given in accordance with the guidance of the Chartered Institute of Ecology and Environmental Management (CIEEM). I further confirm that the opinions expressed are my true and professional opinions.



Robin Ward
9 January 2024

7 References

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