VATTENFALL

# Norfolk Projects Offshore Wind Farm

# Kittiwakes Artificial Nesting Structures

## Supporting Statement

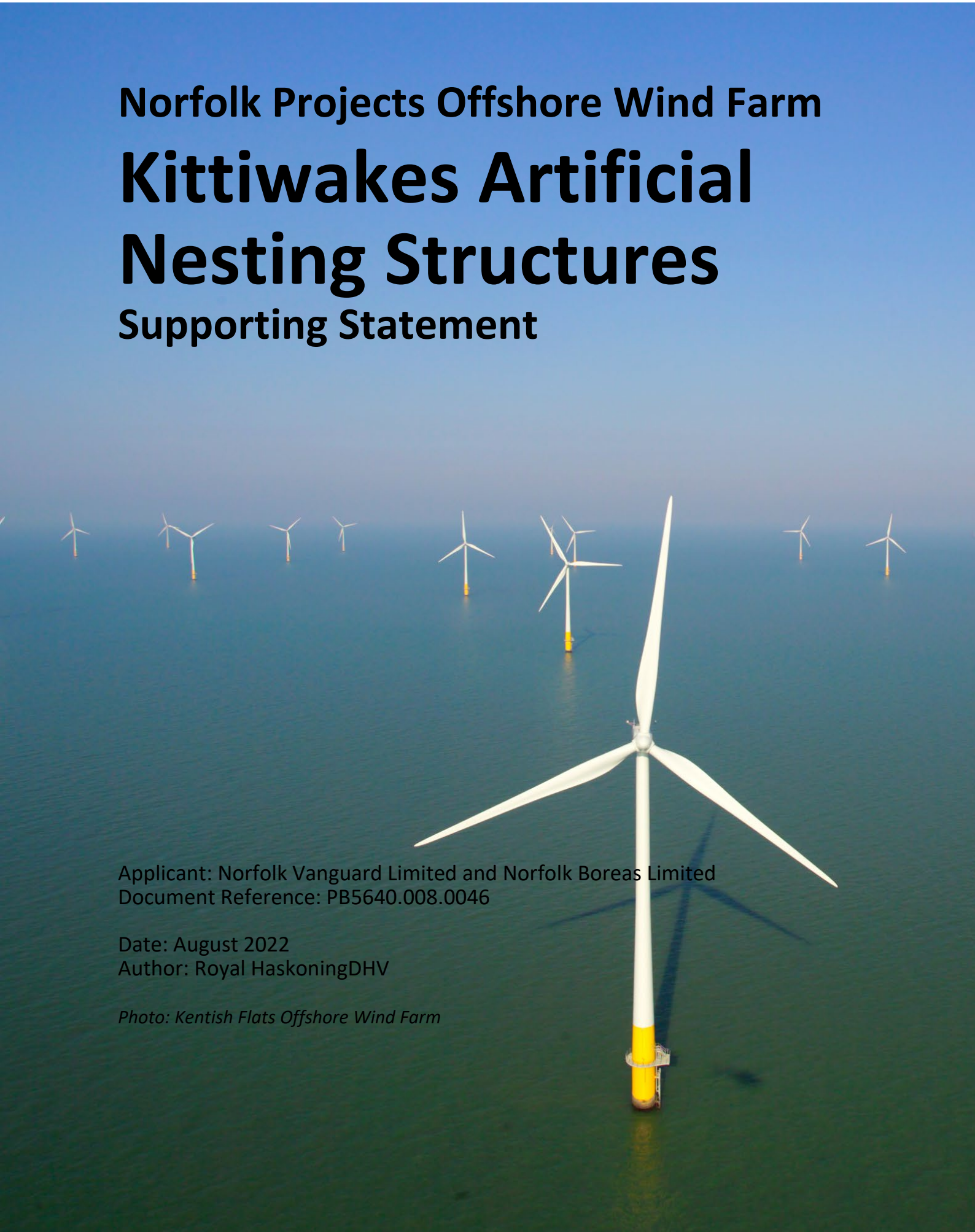

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*Photo: Kentish Flats Offshore Wind Farm*

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# 1 INTRODUCTION

## 1.1 Purpose of this Document

1. Norfolk Vanguard Ltd and Norfolk Boreas Ltd (collectively known as the 'Norfolk Projects') are proposing to install an artificial nesting structure (ANS) for kittiwakes at the Port of Great Yarmouth to deliver compensatory measures for the kittiwake interest feature of the Flamborough and Filey Coast Special Protection Area. This Supporting Statement has been produced to inform a planning application for the proposed ANS..

2. Compensatory measures are required to be delivered as a condition of Schedule 17 Part 1 (Norfolk Vanguard) and Schedule 19 Part 1 (Norfolk Boreas) "*Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss*" of the Norfolk Vanguard and Norfolk Boreas Offshore Wind Farms Development Consent Order (DCO). The East Anglia TWO and East Anglia ONE North DCOs have been made with similar conditions requiring the delivery of compensatory measures for the kittiwake interest feature as set out at Schedule 18 Part 1 "*Flamborough and Filey Coast Special Protection Area: Kittiwake Compensation Measures*" of each DCO. The schedules of the DCOs which require the delivery of compensatory measures are collectively referred to as the 'Compensation Schedules' below.

3. The agreed approach to compensate for kittiwake loss is the introduction of an ANS in an appropriate location. A site has been identified within the Port of Great Yarmouth due to its secure location and proximity to existing kittiwake colonies, which enhances the likelihood that the proposed structure would be colonised by new breeding pairs (established breeding birds rarely relocate). Whilst there isn't currently a known colony of kittiwakes at Great Yarmouth, kittiwake have nested in and around the Port of Lowestoft (approximately 10km to the south) for decades and have not exhibited any sensitivity to areas of significant port activity. The site for the ANS is in a relatively remote location with no residential properties nearby, therefore, it is unlikely to suffer from disturbance or result in complaints. Additionally, the presence of an existing hard-standing concrete base at the site of the ANS would allow simple foundations to be used for the ANS wall or tower. The design of the nesting structure would be in-keeping with the various industrial buildings and structures that are already present within the port. Although Peel Ports are planning an expansion of the Port of Great Yarmouth facilities, the site proposed for the ANS is outside the areas under consideration. Therefore, once kittiwakes have colonised the structure, they would not impact any current or future port operations.

4. This Supporting Statement provides an overarching summary of environmental information pertinent to the installation of the kittiwake ANS proposed to be provided as compensation for Norfolk Vanguard, Norfolk Boreas, East Anglia TWO and East Anglia ONE North; and is provided to support the planning application being submitted to Great Yarmouth Borough Council (GYBC) as the Local Planning Authority (LPA).

5. Planning permission for the structure is required under the Town and Country Planning Act 1990, but it will not constitute 'EIA development' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) or the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. A screening request for the preferred location was submitted to the LPA in June 2022 which confirmed that a formal EIA is not required.

6. In accordance with the Screening Opinion, this report summarises the following environmental considerations to inform the LPA's decision on whether to grant planning permission with a focus on those denoted with an asterix (*):

- Land Use/Socio-economics/Community;
- Flood Risk*;
- Cultural Heritage*;
- Landscape and Visual*;
- Air Quality;
- Noise;
- Traffic
- Contaminated Land; and
- Biodiversity*.

## 1.2 Summary of proposed compensation measures

7. The general approach to compensation was set out in *Flamborough and Filey Coast SPA In Principle Compensation* (referred to as the 'kittiwake compensation plan' in the Compensation Schedules). This confirmed that the provision of ANS would be the most effective means of compensating for in-combination effects on kittiwake populations. The approach would enable improved productivity for the North Sea kittiwake population (i.e. outside of the FFC SPA population).

8. Concept designs for wall and tower structures were developed which drew inspiration from other artificial nesting structures which have been successful such

as the artificial tower built on the Tyne and the wall structure which was built at the entrance to Lowestoft harbour[1].

9. Following a site visit and discussion with GYBC both design options are the focus of this planning application with the final decision being made in discussion with the Kittiwake Steering Group post planning permission (if granted).

## 1.3 Delivery Timetable

10. Subject to the grant of planning permission, on-site works are expected to commence in December 2022, with a maximum duration of two months to enable completion of construction of the ANS by the end of January 2023. The structure itself would be fabricated off-site, to enable rapid installation on-site.

11. Completion of construction is scheduled for January 2023 to enable commissioning of the structure in February 2023, prior to the commencement of the typical kittiwake breeding season in April (Waggitt et al., 2019). This will provide a minimum of four breeding seasons (March to September) before proposed commencement of operation of the first turbines within the Norfolk Projects in 2027.

## 1.4 Structure of this report

12. This Supporting Statement comprises the following Sections:

- Introduction;
- Project Location;
- Proposed Development;
- Legislation;
- Environmental Summary; and
- Conclusion.

13. The following Appendices have been attached to this Statement:

- Appendix A – Flood Risk Assessment;
- Appendix B – Heritage Statement;
- Appendix C –Landscape and Visual Impact Assessment;
- Appendix D – Ecological designations mapping; and
- Appendix E – Planning Drawings.

[1] This structure was initially successfully colonised, however it is not currently occupied as a result of either predation or build-up of nests.

## 2 PROJECT LOCATION

14. The ANS is located in Great Yarmouth on the east coast of Norfolk as shown on Figure 2.1. The Port of Great Yarmouth has been developed in the southern part of South Beach and comprises a deep-water outer harbour on the eastern seaward side and an established river port on the western river side. This port mainly services the offshore energy sector and has capacity to accommodate large offshore substructures, as well as handling agri-bulk, steel, timber and other bulky products. North Pier forms the southern enclosure to the outer harbour, and it is on the concreted western part of the pier that the ANS is located. South Denes is the industrial estate to the north of North Pier and comprises a range of industrial uses, including large storage sheds and yards, factories, industrial units and a power station. The character of the Port of Great Yarmouth is distinctly industrial.

15. The ANS is located on North Pier, on the northern side of the River Yare and to the south of the Port of Great Yarmouth.

16. The River Yare flows north to south through Great Yarmouth before curving east and passing through the channel formed between North Pier and South Pier to join the North Sea. There is a communications tower on the North Pier which is 8.5 m in height and with a 3 m square base. At the eastern end of South Pier, there is a look-out station and steel lattice tower, car parking occupying a large area in the centre, and a hotel, bingo hall, theatre, restaurants, bars and events space at the western end. On this southern and western side of the River Yare there are traditional streets with a mix of historic buildings and modern infill developments. The character of Gorleston is distinctly urban and the high concentration of visitor facilities denotes the function of this town as a seaside resort.

17. The early origins of Great Yarmouth were as a fishing village, later developing as a centre for shipping, and more recently as a seaside resort. The town has expanded to form a linear settlement along the 5 km spit of land which separates the North Sea to the east and the River Yare to the west, and also more recently inland, to the east of the river. The seafront is orientated eastwards across the long sandy beach and with an outlook across 'Yarmouth Roads' and to the North Sea beyond. The historic part of the town lies between Britannia Pier to the north and Wellington Pier to the south. Port of Great Yarmouth is located to the south of South Beach, which extends a further 2 km south of Wellington Pier, situated to the south of South Dene and in a part of the town called Gorleston.


**Figure 2.1 – Port of Great Yarmouth Harbour & North Pier**

18. Figure 2.1 shows the layout view of the Port of Great Yarmouth. The North Pier is indicated with a red location marker and Figure 2.2 provides a closer image of the North Pier.

## 2.1 Site Context

19. The location proposed for the ANS is situated within the Port of Great Yarmouth, which is located on a promontory in the coastal town of Great Yarmouth, Norfolk. The site where the kittiwake nesting structure would be installed covers an area of approximately 1,200m$^2$, however, the actual installed footprint of the structure would be significantly smaller than this.


**Figure 2.2 – Port of Great Yarmouth, showing the North Pier, South Pier and ANS location (red line boundary)**

20. There are no sensitive land-based sites (as defined by the EIA Regulations) within the site proposed for the ANS. The closest land based site of interest is Breydon Water, a local nature reserve, Ramsar Site, Site of Special Scientific Interest (SSSI) and Special Protection Area (SPA), located approximately 4.5km away from the ANS. Given the significant distance between the ANS and Breydon Water, the minor activities associated with the installation of the kittiwake nesting structure are not anticipated to cause any detrimental effects to Breydon Water.

21. The marine environment adjacent to the ANS is included within the Southern North Sea Special Area of Conservation (SAC) and Outer Thames Estuary SPA designations. The Southern North Sea SAC is designated due to its ability to support relatively high densities of harbour porpoise and the Outer Thames Estuary SPA for supporting wintering red-throated diver. The site proposed for the ANS is outside of these

designated areas and any potential impacts would be limited to indirect disturbance. No marine related activity is required to install the ANS.

22. Furthermore, species associated with the designated sites are not known to be present in proximity to the Port of Great Yarmouth and any temporary construction presence associated with the installation of the ANS would be no greater than the existing port activity. As such, the installation of the kittiwake nesting structure is not anticipated to affect either of these designated sites.

23. There are no statutory heritage designations within or immediately adjacent to the site. Within a 1km radius of the ANS, there are 12 Grade II listed buildings and one Grade II* listed building, with the closest listed building located approximately 400m away from the ANS. Given the distance of separation, the kittiwake nesting structure would not be visible from any of the nearby listed buildings. In addition, the design of the structure would be in-keeping with the surrounding industrial buildings and structures present at the Port.

24. Gorleston Conservation Area (Extension) is located approximately 85m south of the ANS on the opposite side of the River Yare. The port's south pier is accessible to the public and provides views across the River Yare into the ANS, which means the nesting structure would be visible from this part of the Gorleston Conservation Area Extension. However, the nesting structure would be in-keeping with structures already present within the Port, therefore, the setting of the Conservation Area (and its Extension) would not significantly change and therefore no harm to the Conservation Area (including its Extension) is likely to occur.

25. The ANS is located at the mouth of the River Yare, which places it within Flood Zone 2, an area classed as having a medium probability of flooding from the sea (0.1% chance of flooding annually). In terms of risk from surface water flooding, the ANS is wholly located within an area of very low surface water flood risk, with a chance of flooding of less than 0.1%. The nesting structure has been designed to mimic a cliff face and cope with exposure to sea spray and periodic low-level inundation from flooding; the lowest nesting features would be raised 2m above ground level.

26. A Site Location Plan and Site Layout Plan are appended to this Supporting Statement, in addition to photographs of the location of the ANS itself. Further consideration of potential environmental impacts is presented in Section 5.

# 3 PROPOSED DEVELOPMENT

## 3.1 Design

27. There are two conceptual designs which have been progressed for the proposed kittiwake ANS. The structure would either comprise:

- A wall type structure; or
- A tower type structure.

28. Both design options are included within this planning application with the final decision being made in discussion with the Kittiwake Steering Group, prior to construction starting (and therefore post the grant of planning permission).

29. Kittiwakes readily make use of man-made structures for nesting sites and these two structure types are both still being considered at this stage.

30. The nesting structures have also been designed with features that will minimise avian predation. These include narrow ledges to prevent large gulls landing on them and the inclusion of a large overhanging ledge at the top of each structure to prevent large gulls accessing the kittiwake nests.

### 3.1.1 Wall Type Structure

31. The ANS wall option comprises a modular wall design. Three wall structures will be installed on the existing hard standing, with security and predator exclusion fencing installed enclosing the wall structures.

32. Figure 3.1 below shows the layout for the three wall structures within the red line boundary as well as the position of the surrounding predator-proof fencing. The spacing between the walls which is currently approximately 8m may be increased dependent upon final agreement with the kittiwake steering group, but will remain wholly within the red line boundary and in the NW-SE orientation shown below. Depending on the final spacing between the walls the 2m high security fencing may follow the red line boundary (up to 150m) or may be positioned tighter to the walls as shown below (approximately 110m of fencing). The predator proof fence will be 2m high, have two access gates and have an overhang extending outwards to prevent foxes or other ground predators from accessing the structures. The height and overhang will also minimise the potential for access to the compound by trespassers. The fence support posts will be located every 2.5 meters and they will be embedded into the ground with concrete foundations.

**Figure 3.1 – Indicative site layout at the Proposed location of Wall Structures on North Pier**

34. The ANS will use precast reinforced concrete elements as shown in Figure 3.3. Each of the three wall structures will be precast in concrete and will be constructed offsite and will be individually transported to the site of the ANS. Each wall will have a base width of 3.5m, length of 13.8m and a height of 4.73m.

35. Each of the three wall structures will sit on 14 concrete foundation blocks (42 in total) of 1.8m in length, 1.8m in width and 1.0m in depth which will be buried within the existing hard standing i.e. the top of each foundation block will be positioned at existing ground level. Each of the three wall structures will be anchored on top of these concrete foundation blocks.

36. The kittiwake nesting cabinets will be installed on the north-east façade of each wall structure, on the precast concrete wall elements as shown in Figure 3.3. The design of the nesting cabinets has been based on kittiwake nesting success studies commissioned by the Norfolk Projects (MacArthur Green 2021).

37. The nesting cabinets will have a length of 2.09m and a height of 2.7m. Each cabinet will have 6 shelves of 2m in length. The lowest shelves have a width of 0.1m and the top shelf will have a width of 0.2m as seen in Figure 3.2. The shelf widths are

staggered in this manner, increasing in width up the shelf unit, to minimise fouling of lower nests by birds on upper shelves. Each shelf will have a height of 0.4m and an opening on the back will offer access to the nests to allow chicks to be weighed and ringed. The overhanging top will prevent access from aerial predators and protect against weather.

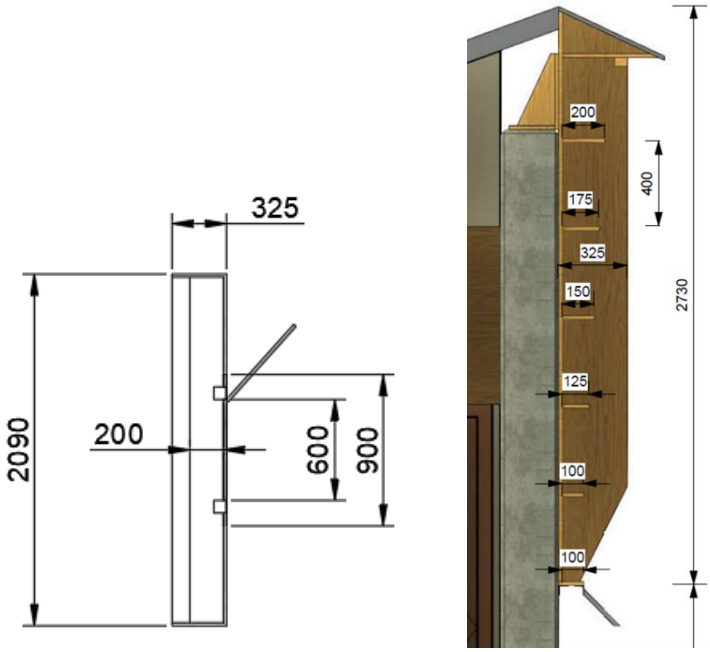


**Figure 3.2 Nesting Cabinets: Plan and Side views**

38. A complete back enclosure structure will cover the entire back façade of the wall structure (the south-west façade). Figure 3.3 illustrates the supporting frame details of the back enclosure structure with includes two access doors on each end and a movable ladder to be used to access all nesting shelves through the openings on the back of the cabinets.

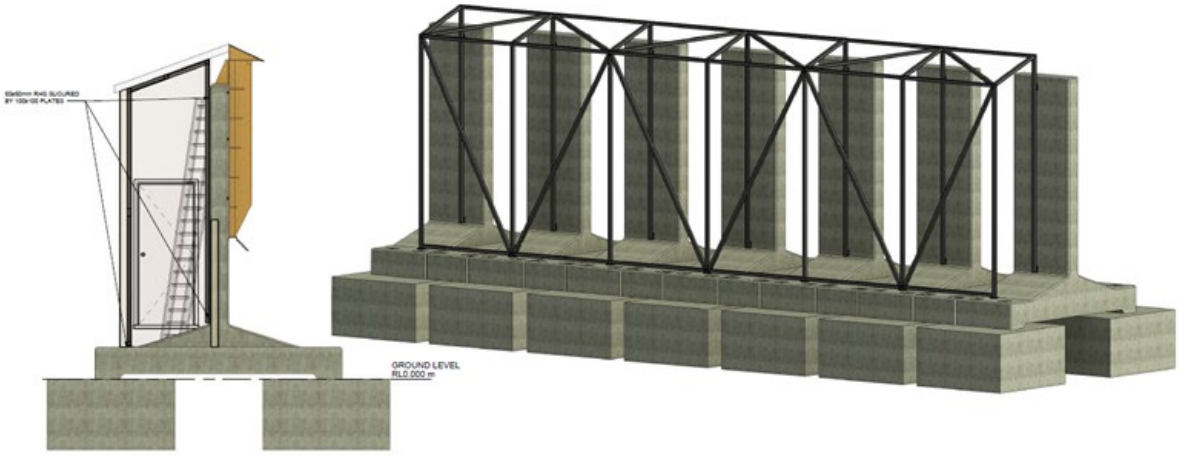


**Figure 3.3 Foundations, PC wall units and enclosure back structure – Section View (Left) and 3D View of Internal Frame**

39. Each nesting cabinet has been designed to accommodate at least 24 nests. To provide the target space for kittiwake nests, a total of 6 cabinets will be installed on each of the three wall structures. This will create a wall 13.8m in length with space for an estimated 144 nests (6 cabinets x 24 nests). The three wall structures will therefore offer a total capacity of 432 nests.

40. The wall structures will be placed to have the nesting panels oriented towards the north-east to protect the nests from over-heating (i.e. avoiding south facing sun exposure) and provide direct access to the sea. The back side of the nesting shelves will be enclosed and this will eliminate any noise or light disturbance to the nests during any inspection or monitoring.

### 3.1.2 Tower Type Structure

41. The ANS tower option will be constructed of high yield steel with a paint system complying with C5M/Im2 marine standard. This will enable the structures to resist the harsh weather conditions of the North Sea.

**Figure 3.4 – Indicative site layout at the Proposed location of Tower Structures on North Pier**

42. The tower structures will be triangular in plan with vertical steel columns located in each corner, spaced 3.2m from centre to centre, as seen in Figure 3.5.

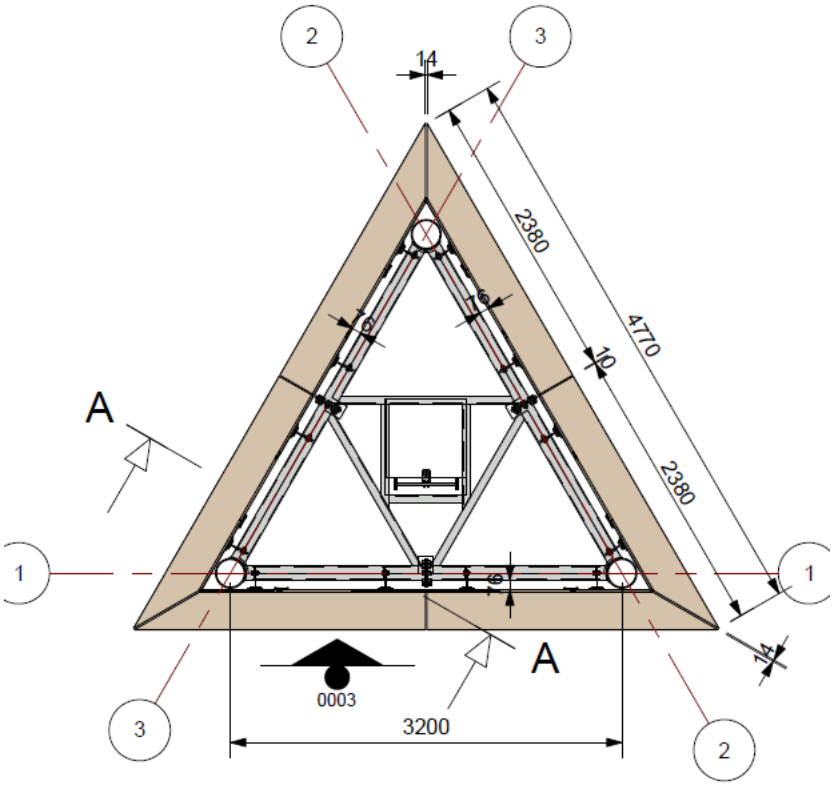


**Figure 3.5 - Plan View of Tower Structure**

43. The tower structure will have three internal levels, the first and second levels will be accessible via an internal vertical staircase with pull-up safety hatch panels. The third level is the top of the tower structure and will be enclosed with no access.

44. Figure 3.6 below illustrates the main structural steel frame of the tower structure, where diagonal bracings are oriented to have minimum restrictions on the operation of the access panel openings on the back of the nesting panels.

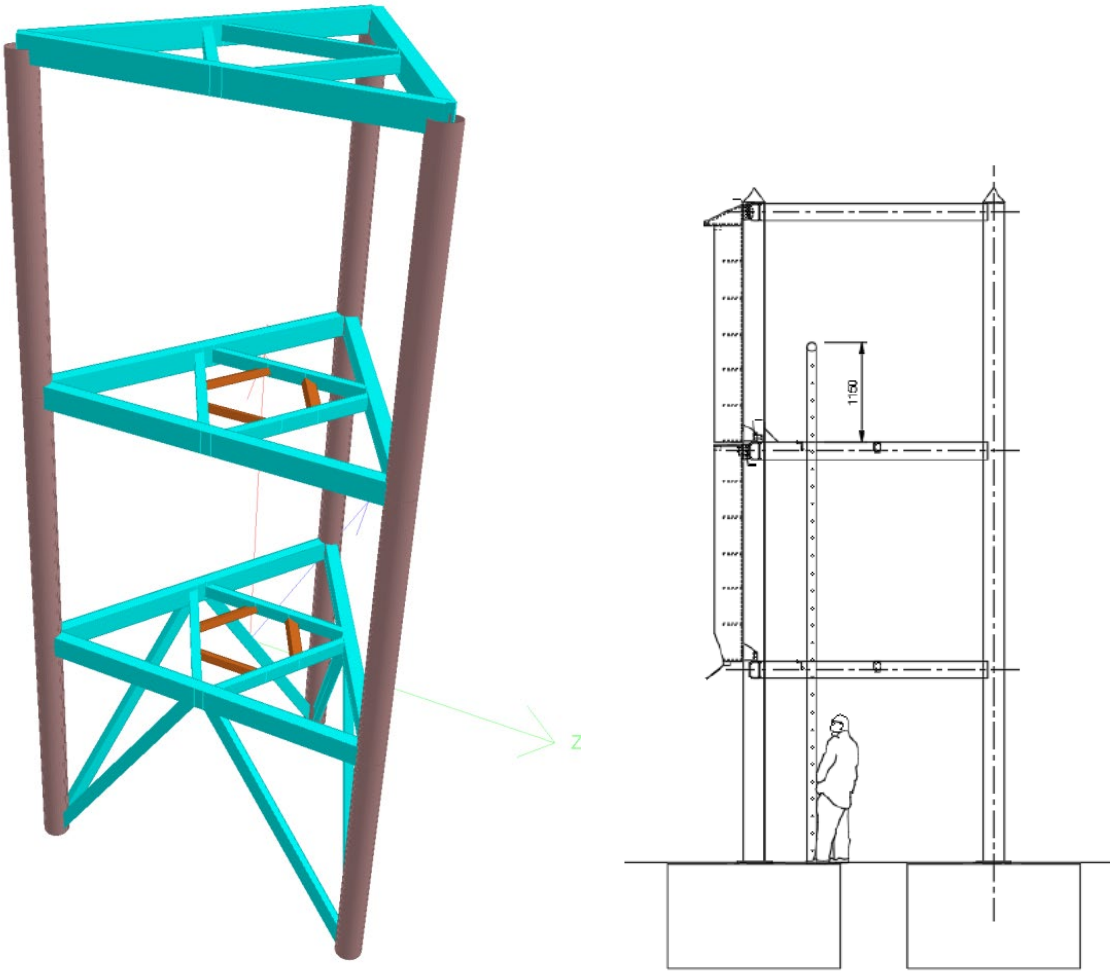


**Figure 3.6 - Main Steel Frame Elements of the Tower Structure with mass concrete foundations and internal ladders**

45. The steel structural frame elements of the Tower structure (Figure 3.6), will be prefabricated at an off-site location as per the detailed design drawings and transported to site for assembly. Prior to the start of the installation, foundation works will be also carried out for the tower structure. Mass concrete blocks of 2.0m in length, 2.0m in width and 1.2m in depth will be buried and anchored on each corner of the tower structures. The total height of the tower structure will be 7.5m.

46. The nesting cabinets will be installed on the external façade of the tower structure. A total of 36 cabinets (4 on each façade of the tower) will be prefabricated and transported to the project site prior to installation. Utilizing such off-site modular construction methods will have significant benefits in reducing waste and the carbon footprint of the contractor.

47. The nesting cabinets will have a length of 2.3m and a height of 2.5m. Each cabinet will have 6 shelves of 1.85m in length. The lowest shelves have a width of 0.1m and

the top shelf will have a width of 0.2m. Each shelf will have a height of 0.4m and an opening on the back of the cabinets will allow inspection of the kittiwakes.

48. Each nesting cabinet will have a total effective shelf length of 9 metres, which should accommodate 18 nests. The tower structure will have 3 facades and each façade will have 4 nesting cabinets. This will create a tower structure with a total nest capacity of 216 nests (3 facades x 4 cabinets x 18 nests). However, as one façade will face predominantly southwards which is expected to result in lower occupancy and poorer nesting success, total nest capacity had been calculated on the basis of only two facades per tower structure, hence total nest capacity per tower is estimated at 144 (2 facades x 4 cabinets x 18 nests). The three tower structures will therefore offer a total capacity of 432 nests.

49. Due to its triangular shape, the tower structure will inherently create an internal enclosure that will enable the inspection of the kittiwake nests with minimum disturbance. A vertical access ladder will enable access to the first and second levels of the tower structure. At each level, a movable access ladder will allow inspection of the kittiwake nests via the access panel openings that are located on the back of the nesting cabinets.

50. Since the tower structure will be completely enclosed, it will also eliminate any noise or light disturbance to the nests during any future inspection.

## 3.2 Construction

51. Whichever structure type is taken forward construction activities would be similar. The nesting structure would be prefabricated offsite and transported to the site of the ANS using standard construction vehicles.

52. Ahead of arrival of the structure some site preparation and groundworks will be required. Excavated material would be removed from site to an agreed disposal location, and concrete and other materials would be delivered to site using standard construction vehicles. The ground will be prepared and mass concrete foundations will be formed.

53. Offloading and installation of the structure onto the foundation will require lifting equipment, most likely a mobile crane of a suitable size, to move modules from transport vehicles to the foundation.

54. The installation of the foundations and assembly of the structures will be completed by a small workforce (10-20 individuals) over the course of 6-12 weeks. Works will be undertaken during normal daytime hours and noise levels during construction are not expected to exceed other general construction activity.

55. The installation of the ANS is scheduled to take place Q4 2022 to avoid the nesting period for the kittiwakes (defined within the DCO schedules as 1st March to 30th September) and prevent disturbing kittiwakes that are already using features within the port to nest.

56. A temporary construction compound will also be required, in proximity to the ANS, during the construction phase of the kittiwake nesting structure, which will house a temporary welfare facility and areas for storage of construction materials, tools, equipment and plant. The temporary construction compound will be removed after completion of the construction phase.

## 3.3 Operation

57. The kittiwake nesting structure is anticipated to be ready to use by kittiwakes prior to the start of the 2023 kittiwake nesting season, i.e. operational prior to March 2023.

58. Kittiwakes readily make use of man-made structures for nesting sites and would only be present at the nesting structures between March and September, which covers their breeding season. For the other five months of the year, kittiwakes are found almost exclusively out at sea. Studies of their diet show that they feed predominantly on fish and therefore all of their foraging, when using nesting sites, will take place offshore. In this respect kittiwakes differ from larger gull species (e.g. herring gulls) which take advantage of refuse sites and waste food in urban locations. Such behaviour has never been observed in kittiwakes.

59. Whilst there will be some mess beneath the nesting structure as a result of guano accumulation during the period the kittiwakes are present, this will;

- Be limited to the immediate vicinity of the nests;
- Occur only during the seven months the birds are present at their nests; and
- Be readily washed away by rain within a few weeks of the birds departure and so will not build up over time.

60. Consequently, there is little risk of kittiwakes associated with the ANS becoming a nuisance either to the Port of Great Yarmouth or people and businesses in Great Yarmouth town.

61. Routine site visits will be required to inspect the structures and ensure anti-predation measures are continuing to perform as intended. It is anticipated that there will be a minimum of one scheduled maintenance inspection per year, which would be conducted outside of the kittiwake nesting season.

62. Annual monitoring of kittiwake breeding at the nesting structure colony will be conducted during each breeding season, to ensure that the compensation measure is working as intended. This will include counts of the number of birds, the number of occupied nests, the number of eggs/chicks visible and ringing of birds. Comparison of this information with that collected from existing kittiwake breeding locations in Great Yarmouth would provide further information on the success of the nesting structure colony.

# 4 LEGISLATION

## 4.1 Town and Country Planning Act

63. Authorisation for the installation of the kittiwake ANS will be determined under the Town and Country Planning Act 1990 (as amended).

## 4.2 EIA Regulations and Screening Opinion

64. A Screening Request in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) ("the EIA Regulations 2009") was submitted by Royal HaskoningDHV on behalf of the Applicants for the proposed installation of the kittiwake ANS during June 2022. On 12th July 2022, GYBC issued its Environmental Impact Assessment (EIA) Screening Opinion with regard to the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. As such, GYBC had regard for both the 2009 and the 2017 Regulations in providing its opinion.

65. GYBC assessed the proposed development against the EIA Regulations and concluded that it is Schedule 2 development under Class 13 (b) of the EIA Regulations.

66. Schedule 2, Class 13(b) relates to '*Any change to or extension of development of a description listed in paragraphs [Classes] 1 to 12 of column 1 of this table, where that development is already authorised, executed or in the process of being executed*'.

67. The applicable thresholds and criteria for Class 13 (b) are either:

(i) The development as changed or extended may have significant adverse effects on the environment; or

(ii) in relation to development of a description mentioned in column 1 of this table, the thresholds and criteria in the corresponding part of column 2 of this table applied to the change or extension are met or exceeded.

68. With all four offshore wind farm DCOs having been already authorised, the proposed ANS would be considered as an extension of development in relation to *Class 3 Energy industry, item (i) 'Installations for the harnessing of wind power for energy production (wind farms)'*.

69. Construction of the proposed ANS is intended to fulfil the conditions of the DCOs made by the Secretary of State, which require delivery of compensation for the kittiwake interest feature of the FFC SPA as explained above. The ANS therefore forms a critical component of the DCO approval in each case, noting that the wind

farm proposals are unable to proceed until the ANS compensation measures are in place to allow for four full kittiwake breeding seasons prior to turbine operation.

70. As such, the proposal must be assessed to determine whether it would have significant adverse effects on the environment by virtue of factors such as its nature, size or location as set out in Schedule 3 of the EIA Regulations. Having due regard to the criteria listed under Schedule 3, GYBC concluded that it is unlikely that the development will have a significant effect on the environment. Therefore, an Environmental Statement and Environmental Impact Assessment are not required to inform the application for planning permission made to GYBC. Whilst GYBC considered it possible that some potential impacts will be identified at the time of an application being submitted for determination, GYBC did not expect these to be significant in EIA terms.

# 5 ENVIRONMENTAL SUMMARY

## 5.1 Introduction

71. This section provides a summary of the environmental considerations of implementing the proposed development and builds on the EIA Screening Request information submitted to GYBC in June 2022. The following reports and figure have been compiled in response to the Screening Opinion providing additional information for consideration in determination of the Application and which are appended to this Supporting Statement:

- Appendix A – Flood Risk Assessment;
- Appendix B – Heritage Statement;
- Appendix C – Landscape and Visual Impact Assessment; and
- Appendix D – Ecological designations mapping.

## 5.2 Land Use

72. The site of the ANS is designated as a safeguarded employment area and port operational land under the Great Yarmouth Local Plan. There are a number of port activities and industrial uses located near to the ANS which may be temporarily affected during the construction of the proposed. There are no residential or community uses identified within or immediately adjacent the ANS. Nearest residential receptors are located approximately 400m away, across the River Yare.

73. Planning permission (06/21/0415/F) is currently being sought for major infrastructure development, on land westward and southward of South Denes Road, to enable a future Operations and Maintenance (O&M) facility to take place to support offshore renewable energy projects.

74. The permission includes upgrades to the quay wall, provision of a new docking berth for Service Operation Vessels, installing pontoon linkspans for use by Crew Transfer Vehicles, as well as new and extended roads, new vehicle access and turning heads; construction of parking areas and provision of land for use as storage areas and associated infrastructure works. This proposed development is discussed further in section 5.11.

75. The construction of the nesting structure is relatively small scale and would not have any negative impacts to the existing port operation.

76. Once operational, kittiwakes would only be present at the nesting structure between March and September, which covers their breeding season. For the other five months of the year, kittiwakes are found almost exclusively out at sea. When using nesting sites kittiwakes still feed predominantly at sea and are not prone to

scavenging or foraging inland away from their nest sites. Consequently, there is little risk of kittiwakes associated with the ANS becoming a nuisance to either to the Port of Great Yarmouth or people and businesses in Great Yarmouth town centre.

77. Although there may be a perception of potential nuisances upon nearby industrial/port-related activities, GYBC's screening opinion confirms that given the relatively isolated location of the ANS, together with the known breeding and foraging habitats of kittiwakes, that, the proposal is unlikely to give rise to significant environmental effects in this regard, during its operational phase. The presence of the ANS will also not affect the potential for the area to be used for employment in the future, and is therefore compatible with the safeguarded employment area.

78. Therefore, no likely significant effects, on the use of the port or other local businesses, are anticipated.

## 5.3 Flood Risk

79. A National Planning Policy Framework (NPPF)[2] compliant Flood Risk Assessment (FRA) for the proposed kittiwakes ANS is provided as Appendix A. A summary of those findings is presented below.

80. The kittiwake ANS is classified as Major Development, since the red line boundary is greater than 250m$^2$, and the structure does not comprise an extension to an existing building.

81. According to Annex 3 of the NPPF, the ANS Vulnerability Classification is “Water Compatible” development, which comprises the following uses:

> *‘Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms.’*

82. This is due to the proposed use of the ANS to provide artificial kittiwake nesting structures (nature conservation and biodiversity).

83. The key findings of the FRA are as follows:

- The ANS is situated within Flood Zone 3a, which comprises land having a between 1 in 200 (0.5%) and 1 in 20 (5.0%) average annual probability of sea flooding.
- The intended lifespan for the ANS is 40 years i.e. up to 2062. The applicable tidal climate change allowance is therefore the Higher Central Allowance for the Anglian region.

[2] Ministry of Housing, Communities & Local Government, “National Planning Policy Framework,” 20 July 2021. [Online]. Avalable: https://www.gov.uk/government/publications/national-planning-policy-framework--2

- The Environment Agency Product 4 dataset shows that the primary source of flooding to the ANS is tidal flooding. The ANS is shown to experience flood depths of up to 0.17m in the 1 in 200 year plus climate change tidal flood event (3.83mAOD). In addition, it would experience flood depths of up to 0.68m in the 1 in 1,000 year plus climate change tidal flood event (i.e. 4.34mAOD). Given the proposed use, the ANS is considered to be at very low risk of flooding from tidal sources.
- It is understood that the surface water drainage strategy for the ANS is to drain water in the same manner as it does currently from the existing impermeable surface. Therefore, there will be no change in surface water discharge from the ANS and as such no adverse impact to any nearby third party properties.
- Whilst there are no specific details of flooding having affected the site of the ANS, as part of the FRA, it has been noted that the location often experiences wave overtopping / spray in the winter months, when winter storms coincide with high tides.

84. The site of the ANS has not been allocated for a biodiversity improvement of this nature through the Local Plan process, and a Sequential Test has therefore been undertaken. The ANS is designed to mimic a cliff face and be positioned in a coastal location that would inevitably be at risk of tidal flooding. Furthermore, the nesting structure is designed to cope with exposure to sea spray and periodic low-level inundation.

85. The NPPF Sequential Test: Flood Risk Vulnerability and Flood Zone 'Compatibility' Table 3 considers Water Compatible development in Flood Zone 3a, Flood Zone 2 and Flood Zone 1 to be appropriate in this location. Therefore, there is no requirement for application of the Exception Test.

86. Notwithstanding the above, it is considered that the siting of the ANS in this location will bring with it a wider sustainability benefit and given the assessed tidal flood risk over the development lifespan is very low (including with the consideration of climate change), the ANS will not cause detriment to flood risk elsewhere (given there is also an existing wall to the rear of the outer harbour arm the ANS will be located on).

87. Consequently, it is concluded that, with regards to the Flood Risk requirements of the NPPF, the proposal is acceptable.

## 5.4 Cultural Heritage

88. A full Heritage Statement for the proposed kittiwake ANS is provided as Appendix B. A summary of those findings is presented below.

89. There are no statutory heritage designations within or immediately adjacent to the ANS. There are four Listed Buildings and three Conservation Areas within a 1km study area of the ANS which have sea facing/harbour views from which the proposed ANS could potentially be visible. The remaining Listed Buildings and Locally Listed Buildings were not identified for assessment as these are visually screened from the proposed ANS by existing built development/form and port structures.

90. These assets are:

- Grade II Gorleston Lighthouse (List Entry: 1245979);
- Grade II The Pavilion (List Entry: 1245976);
- Grade II Old Custom House (List Entry: 1096824);
- Grade II 37 Cliff Hill (List Entry: 1096825);
- Gorleston Town Centre Conservation Area;
- Cliff Hill, Gorleston Conservation Area; and
- Gorleston Conservation Area Extensions.

91. As no Conservation Area Appraisals have been adopted it is not possible to assess their importance, any locally listed buildings (non-designated assets) or why they have been designated as such. As the Listed Buildings referred to above lie within the various Conservation Areas, it is these elements that have been assessed

92. The Heritage Statement concluded the following:

- There will be no direct physical change to any heritage assets as a result of the proposed ANS.
- It is anticipated there will be minimal change to the setting of the designated heritage assets identified and therefore less than substantial harm to their heritage significance.
- As these heritage assets sit within the Conservation Area, and given that the proposed ANS will look similar to existing port infrastructure, it is reasonable to conclude that the ANS will similarly not cause harm to the Conservation Area.

## 5.5 Landscape and Visual

93. A Landscape and Visual Impact Assessment for the proposed kittiwake ANS is provided as Appendix C. A summary of the findings is presented below.

- There are no national or local designated landscapes (Areas of Outstanding Natural Beauty, Ancient Woodland) on or in proximity to the ANS. The Broads Area is located approximately 3.5km northwest of the ANS at its closest point.
- The site of the ANS is of flat terrain made of concrete hardstanding. There are no existing trees or vegetation within this location.

- There are no Public Rights of Way within or immediately adjacent to the ANS.
- The ANS is adjacent to the Nort East Norfolk and Flegg National Character Area.
- The North Pier is not accessible to the public. Receptors within the North Pier are anticipated to be port employees, wind farm developer employees, and people using the access road. There is a communications tower on the North Pier which is 8.5 m in height with a 3 m square base.
- The South Pier is within the Gorleston Conservation Area Extensions, is accessible to the public and provides views into the ANS. At the eastern end of South Pier, there is a look-out station and steel lattice tower (National Coast Watch Building), car parking occupying a large area in the centre, and a hotel, bingo hall, theatre, restaurants, bars and events space at the western end.
- No likely significant effects are anticipated upon the setting of the Broads Authority area due to the distance and the intervening Great Yarmouth & Gorleston built-up area which separates the proposal from it.

### 5.5.1 Landscape/Townscape Character

94. There is very limited scope for the ANS to have a notable effect on the landscape or townscape character of the local area for the following key reasons:

- The landscape character of this local area is already predominantly defined by built development, including the concrete and steel structure of the North Pier, where the ANS would be located and the adjacent 8.5 m tower the ANS would sit next to;
- There is a contrast between the townscape character on the eastern side of the River Yare where the ANS would be located, and the western side. The presence of the Port of Great Yarmouth, with its associated movement of shipping and freight, and the other industrial developments across South Denes, establishes a strong industrial character. It is in this context that the scale of the ANS, regardless of whether they are walls or towers, would appear relatively small in scale and similar in character to many of the other built structures on this side of the river. These factors notably reduce the potential for the ANS to change the townscape character of this area as they will not appear at variance with this character;
- In terms of the townscape character on the western side of the river, while this is commercial and residential, rather than industrial, and with an influence from a number of historic buildings and streets, the ANS would be seen associated with the industrial eastern side of the river. Indirect effects on the townscape character on the western side of the river would be limited by the separation distance, the relatively small scale of the structures and the greater influence of the built developments and busy roads on the western side.

95. The ANS would not redefine the landscape character or townscape character of the local area.

### 5.5.2 Visual Amenity

96. Visual receptors comprise those people who live, work and spend time in the local area, for example residents in properties, and workers and visitors in the commercial buildings on the seafront, walkers along the quayside, workers at the port and road-users on the local roads.

97. The extent to which the ANS would be visible can be broadly defined by the streets which enclose the seafront to the west and south-west, and the industrial buildings which enclose the land to the north. While views are generally more open and wider ranging to the south and the east, the South Pier and associated buildings form sone degree of enclosure and the effect of the ANS will dissipate fairly rapidly with distance owing to the relatively small-scale of the structures.

98. Three viewpoints have been selected to represent the views of visual receptors in the local area and act as the basis of the assessment of the magnitude of change that the ANS would give rise to. These are located along Gorleston South Pier and Quay Road, which are the closest parts of the town with greatest potential to be affected by the ANS.

99. The assessment found that despite the medium-high sensitivity of the visual receptors, there would be no significant effects owing principally to the baseline character of the site of the ANS and local area, which is already influenced by large scale and extensive industrial development and other urban developments.

100. Furthermore, there is the potential that the ANS could be seen as a positive addition to North Pier owing to the sculptural form of the structures, especially the towers and the positive association these would bring to this area in respect of the value of nature conservation.

## 5.6 Air Quality

101. The Port of Great Yarmouth is not within a designated Air Quality Management Area.

102. The construction works associated with the proposed development have the potential to impact on local air quality conditions as follows:

- Dust emissions generated by excavation, construction and earthwork activities have the potential to cause nuisance to, and soiling of, sensitive receptors;
- Emissions of exhaust pollutants, especially $NO_X$ and $PM_{10}$ from construction traffic on the local road network, have the potential to impact upon local air

quality at sensitive receptors situated adjacent to the routes utilised by construction vehicles;

- Emissions of $NO_X$ and $PM_{10}$ from on-site plant operating within the works area have the potential to impact local air quality at sensitive receptors in close proximity to the works.

103. Some site preparation and groundworks will be required during the construction of the foundations to support the structure. This will involve some excavation work within the existing hard standing at the site of the ANS.

104. Human receptors within the North Pier are anticipated to be limited to construction workers associated with the proposed industrial development awaiting planning permission. The South Pier is accessible to the public and is located approximately 100m away on the opposite side of the harbour entrance.

105. Ecological receptors (both terrestrial and marine) are deemed to be too far away to experience potential impacts associated with the minor activities from the installation of the kittiwake ANS.

106. The extent of vehicle emissions during construction is expected to be limited due to the short construction period and relatively low levels of construction activity, noting that the ANS will be predominantly prefabricated offsite before being transported and erected onsite. Similarly, emissions from vehicles used for operational site visits are expected to be very low due to their relative infrequency as already discussed. The isolated and exposed nature of the ANS, will also contribute to any vehicle emissions being dissipated away from publicly accessed areas and would not be expected to exceed those levels already emitted by the existing port activity.

107. Standard best practice measures to suppress any dust generated as part of the works will be employed.

108. Given the isolated location of the proposed ANS, combined with its restricted public access, distance from human and ecological receptors, low frequency of construction deliveries and operational visits, no likely significant effects related to air quality are anticipated.

## 5.7 Noise

109. The ANS is also not within any Noise Important Areas (NIAs).

110. Some site preparation and groundworks would be required during the construction phase of the ANS. Foundations will involve some minor excavation work within the existing hard standing at this location.

111. Assembly of the nesting structure on site would involve connecting the prefabricated elements, assisted by a crane, and installing them onto the prepared foundation. The construction works would last approximately 6-12 weeks. Noise levels during construction would not exceed any other general construction activity and the isolated nature of the ANS limits the potential for noise sensitive receptors.

112. During operation there may be a requirement to play recorded sounds of a kittiwake colony to attract birds to the nesting structure. However, this is unlikely to lead to significant effects in the context of the existing operational port nearby and distance away from human receptors, and recordings would only be implemented during daytime hours.

113. Gulls are typically associated with noise and mess. However, kittiwakes would only be present at the nesting structure between late Feb/early March to the end of September each year, covering their breeding season. The birds spend the remainder of the year out at sea and studies of their diet show that they feed predominantly on fish and therefore the vast majority of their foraging, when using nesting sites, still takes place offshore. Kittiwakes are not prone to scavenging or foraging inland.

114. Given the relatively remote location of the ANS, with restricted public access, together with the known breeding and nesting habits, no likely significant effects, related to noise, are anticipated.

## 5.8 Traffic

115. The kittiwake ANS will be prefabricated offsite and transported to site using standard construction vehicles taking account of access conditions at the port. Movement along South Denes Road will be the principal transport corridor to access the site. HGVs would likely access the main trunk road (A47). The construction works would be undertaken by a small workforce (10-20 individuals) over the course of 6-12 weeks.

116. During operation there would be limited visits required to the nesting structure – one annual maintenance visit during the winter period and fortnightly monitoring visits during the nesting season.

117. Given the small-scale of the construction works, using standard construction vehicles, and the good existing road links to the port there is not anticipated to be any potential for any traffic disruption to arise as a result of the installation of the kittiwake nesting structure. No likely significant effects, related to traffic and transport, are anticipated.

## 5.9 Contaminated land

118. The site of the ANS forms part of a wider area that has a history of industrial use. Therefore the potential for sources of on-site contaminants to be unearthed does exist.

119. Some minor excavation work within the existing hard standing at the ANS would be required for the preparation and pouring of reinforced concrete foundations to support the ANS. This would be located above Mean High Water Springs.

120. The excavations would be relatively shallow (approximately 1m depth) and limited to creating an adequate depth within the existing concrete platform to introduce the nesting structure's concrete foundation. As such the materials being exposed would predominantly comprise existing concrete. Excavated materials would be tested for contaminants and removed from site to an agreed disposal location.

121. No likely significant effects, related to potentially contaminated land, are anticipated.

## 5.10 Biodiversity

122. In their Screening Opinion, GYBC confirmed that there would be no likely significant effects in relation to the qualifying features of designated habitats (described below) during the construction or operation phase of the proposed development. Notwithstanding this, given the proximity of the ANS to the designated sites, GYBC requested an ecological statement to accompany this planning application. As such, this section and provides further discussion in relation to potential effects on the terrestrial and marine environments.

123. Potential effects may include:

- Habitat loss;
- Disturbance – noise and visual disturbance causing displacement of qualifying features;
- Pollution – watercourse pollution through pollution and/or run-off;
- Air quality – dust and particulate matter arisings;
- Indirect effects via noise disturbance causing displacement of prey of qualifying features.

### 5.10.1 Terrestrial Environment

124. There are no international or nationally designated areas within the ANS.

125. The site of the ANS comprises an existing hard standing concrete platform located at the southern part of the Port of Great Yarmouth. The site of the ANS does not

support any natural vegetation and does not currently have any potential to support protected species.

126. There are no sensitive land-based sites (as defined by EIA Regulations) within the ANS. The closest land based site of interest is Breydon Water, a local nature reserve, Ramsar Site, SSSI and SPA, located approximately 4.5km away from the ANS to the west. See Appendix D; Figure 4 for further details.

127. The Breydon Water Ramsar, SPA and SSSI site is an inland tidal estuary at the mouth of the River Yare and its confluence with the Rivers Bure and Waveney and an adjacent area of drained floodplain.

128. The main habitat types of the Ramsar site are intertidal mud, saltmarsh, flood embankments, brackish and improved grasslands and saline ditches and the site is internationally important for wintering birds. The SPA also includes extensive areas of floodplain grassland adjacent to the intertidal areas. Several wintering wildfowl (including wigeon and shelduck) reach nationally important population levels and the site occupies a key position on the east coast for these species and for migrating birds. The site supports considerable botanical interest and the invertebrate fauna is rich, including one scarce species of snail.

129. Planning permission (06/21/0415/F) is currently being sought for a major infrastructure development, on land westward and southward of South Denes Road, immediately north/northwest of the ANS. An Environmental Statement[3] was submitted in support of the planning application and the Non-Technical Summary[4] reports the following with regards to land adjacent to and north of the ANS:

- *'The Site consists of an industrial port with associated facilities. Habitats on Site include grassland, the River Yare and intertidal habitats, trees and shrubs, bare ground, hardstanding and buildings. Habitats on Site were generally common and widespread and considered to be of limited ecological value'.*

130. Construction activities will be carried out using good practice management measures. Given the significant distance between the ANS and Breydon Water, and the ANS and immediate surrounding area having limited ecological value, the minor activities associated with the installation of the kittiwake nesting structure on an existing hard standing concrete structure are not anticipated to cause any significant direct or indirect effects to Breydon Water.

[3] Great Yarmouth Port – Operations and Maintenance Facility, Environmental Statement, 70078981-ES, May 2021, WSP

[4] Great Yarmouth Port – Operations and Maintenance Facility, Environmental Statement, 70078981-NTS, May 2021, WSP

131. No likely significant effects, related to terrestrial ecology, are anticipated.

### 5.10.2 Marine Environment

132. The marine environment adjacent to the ANS sits within the Southern North Sea SAC and Outer Thames Estuary SPA designations. See Appendix D; Figure 4 for further details.

133. The Southern North Sea SAC is located to the east of England stretching from the central North Sea (north of Dogger Bank) to the Straits of Dover in the south. The majority of the SAC lies offshore, though it does extend into coastal areas of Norfolk and Suffolk. The SAC is designated due to its importance for the Annex II species harbour porpoise, supporting an estimated 17.5% of the UK North Sea Management Unit (MU) population. The SAC is the largest of the five that were proposed for the conservation of harbour porpoise within UK coastal waters.

134. The Outer Thames Estuary SPA lies along the east coast of England, predominantly in the coastal waters of the Southern North Sea between the Thames Estuary and Great Yarmouth on the east Norfolk coast. Having been extended in area in 2017, the Outer Thames Estuary SPA now includes the River Yare up to Breydon Water SPA. The SPA is classified for the protection of the largest aggregation of wintering red-throated diver in the UK, supporting 38% of the wintering population of Great Britain.

135. The proposed Site for the ANS is outside of these designated areas and so there will be no direct habitat loss experienced.

136. The ANS would be located above mean high water springs on an existing concrete platform present at the Port of Great Yarmouth. No marine related activity is required to install the ANS.

137. The qualifying species associated with the designated sites are not known to be present in proximity to the ANS and any temporary construction presence (6-12 weeks) associated with the installation of the ANS would be no greater than the existing port activity. As such, and with the application of good practice construction management measures, the installation of the kittiwake nesting structure is not anticipated to affect either of these designated sites.

138. No likely significant effects, related to the qualifying features of adjacent marine designations, are anticipated.

## 5.11 Cumulative Effects

139. The area north of the ANS sits within of a planning application (06/21/0415/F) and is for land intended for 'Temporary Works Areas' to facilitate the implementation of the new development. The Temporary Works Areas would be used for the installation of utilities for the highways, provision of construction compounds, haul road, and temporary storage laydown areas for the purpose of the construction works. These areas are located near to the Outer Harbour and adjacent to the proposed Kittiwake ANS facility.

140. In their Screening Opinion, GYBC stated the following:

- *'Planning permission for the proposed O&M facility is due to be consented imminently, with construction also due to commence by Q4 2022. As such, there is potential for disturbance impacts to be had upon the ANS facility as a result of the (parallel) construction phase of the O&M infrastructure works. However, as the Kittiwake nesting facility would be regarded as a new colony, and not an associated feature of the Flamborough & Filey Coast SPA, any potential disturbance would not be considered in terms of likely significant effects upon that part of the SPA, and therefore not a matter for EIA.*

- *Notwithstanding the above, the parallel construction timelines of both projects may put in doubt whether the 2023 breeding season could be adequately considered as 'Year 1' for the required compensatory measure. Whilst this is ultimately a matter for the Secretary of State to decide when discharging the DCO condition, it may be prudent for the applicant to enter into a dialogue with GYBC (who are constructing the O&M facility) to investigate the potential for securing mitigation which might allow the successful implementation of the ANS facility concurrent with the construction of the O&M facility'.*

141. The Applicant agrees with GYBC's position. It will be for the Applicant to demonstrate to the Secretary of State, in discharging the DCO conditions placed on the consented wind farms, the success of the ANS to attract nesting kittiwake and that the required compensation has been delivered.-

142. In terms of potential cumulative impacts with proposed development to the north of the ANS (planning application: 06/21/0415/F), the ANS proposal involves relatively minor construction activities, undertaken by a small workforce over a short period of time. Operationally, the nesting structure will not require significant maintenance other than routine inspection, which is not considered to be a high level of site activity. The ANS is also set within an existing operational port environment.

143. Significant cumulative impacts with other existing or approved developments, either during the construction or operational phases of the development are not considered likely.

# 6 CONCLUSIONS

144. This Supporting Statement provides an overarching summary of environmental information pertinent to the installation of the kittiwake ANS compensation measures for Norfolk Vanguard, Norfolk Boreas, East Anglia TWO and East Anglia ONE North. This Statement is provided to inform the planning application for the kittiwake ANS being submitted to GYBC as the LPA.

145. Planning permission for the structure is required under the Town and Country Planning Act 1990, but it will not constitute an 'EIA development' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) or Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (hereafter referred to as the EIA Regulations). A screening request for the preferred location was submitted to the LPA in April 2022 which confirmed that a formal EIA is not required.

146. No likely significant effects on land use, noise, traffic, air quality and contaminated land are anticipated.

## 6.1 Flood Risk

147. A National Planning Policy Framework (NPPF) compliant Flood Risk Assessment (FRA) for the proposed kittiwake ANS is provided as Appendix A.

148. According to Annex 3 of the NPPF, the ANS Vulnerability Classification is Water Compatible development. This is due to the proposed development providing kittiwake ANS (nature conservation and biodiversity).

149. A Sequential Test has therefore been undertaken for flood risk. The ANS is designed to mimic a cliff face and be positioned in a coastal location that would inevitably be at risk of tidal flooding. Furthermore, the nesting structure is designed to cope with exposure to sea spray and periodic low-level inundation.

150. The NPPF Sequential Test considers Water Compatible development in Flood Zone 3a to be appropriate in this location. Therefore, there is no requirement for application of the Exception Test.

151. Notwithstanding the above, it is considered that the siting of the ANS in this location will bring with it a wider sustainability benefit and given the assessed tidal flood risk over the development lifespan is very low (including with the consideration of climate change), the ANS will not cause detriment to flood risk elsewhere (given there is also an existing wall to the rear of the outer harbour arm the ANS will be located on).

152. Consequently, it is concluded that, with regards to the Flood Risk requirements of the NPPF, the proposal is acceptable.

## 6.2 Cultural Heritage

153. A Heritage Statement for the proposed kittiwake ANS is provided as Appendix B.

154. There will be no direct physical change to any heritage assets.

155. There will be minimal change to the setting of the designated heritage assets identified and therefore less than substantial harm to their heritage significance.

156. As these heritage assets sit within the Conservation Area, and given that the proposed ANS will look similar to existing port infrastructure, it is reasonable to conclude that the ANS will similarly not cause harm to the Conservation Area.

## 6.3 Landscape and Visual

157. A Landscape and Visual Appraisal for the proposed kittiwake ANS is provided as Appendix C.

158. The assessment has found that there would be no significant effects on landscape or townscape character, owing principally to the extent and influence of industrial and other urban developments, surrounding the ANS and local area.

159. In respect of the potential effects on visual amenity, the assessment found that despite the medium-high sensitivity of the visual receptors, there would be no significant effects owing principally to the baseline character of the site of the ANS and local area, which is already influenced by large scale and extensive industrial development and other urban developments.

160. Furthermore, there is the potential that the ANS could be seen as a positive addition to North Pier owing to the sculptural form of the structures, especially the towers and the positive association these would bring to this area in respect of the value of nature conservation.

## 6.4 Biodiversity

161. There are no international or nationally designated areas within the ANS.

162. Construction activities will be carried out using good practice management measures. Given the significant distance between the ANS and Breydon Water, and the ANS and immediate surrounding area having limited ecological value, the minor activities associated with the installation of the kittiwake nesting structure on an existing hard standing concrete structure are not anticipated to cause any significant direct or indirect effects to Breydon Water.

163. The marine environment adjacent to the ANS sits within the Southern North Sea SAC and Outer Thames Estuary SPA designations. The proposed site for the ANS is outside of these designated areas and so there will be no direct habitat loss experienced.

164. No likely significant effects, related to the qualifying features of adjacent marine designations, are anticipated.

# 7 REFERENCES


Great Yarmouth Borough Council (GYBC). (2022). *EIA/KB/2022/1 Request for Screening Opinion under Town and Country Planning (Environmental Impact Assessment) Regulations 2017 for the proposed installation of a Kittiwake Artificial Nesting Structure (ANS) at the Port of Great Yarmouth*

Royal Haskoning DHV (RHDHV). (2022). *PB5640-RHD-ZZ-XX-CO-Z-0002 - Kittiwake Artificial Nesting Structure at Port of Great Yarmouth Request for Screening Opinion*