



Norfolk Projects Offshore Wind Farm Kittiwake Implementation and Monitoring Plan

Annex 1 Kittiwake Compensation consultation report

Developer: Norfolk Boreas Limited and Norfolk Vanguard Limited Document Reference: PB5640.009.0009

Date: November 2022 Revision: Version 1 Author: Royal HaskoningDHV

Photo: Kentish Flats Offshore Wind Farm





Date	Issue No.	Remarks / Reason for Issue	Author	Checked	Approved
21/09/2022	1D	First Draft for KSG review	CL/DT	LB	JL
02/11/2022	1F	Final version for SoS Approval	CL/DT	VR	JL





Table of Contents

1	Introduction	4
2	Establishing the Kittiwake Steering Group	5
3	Steering Group meetings	7
4	KIMP review	12
5	Kittiwake Compensation Productivity and Adaptive Management Meeting	14
6	Agreement Log	15
Appendix 1 Si	igned invitation Letters from KSG members.	16
Appendix 2 K	ittiwake Review and Sign-off Programme	27
Appendix 3 K	SG Agreement Log	28
Appendix 4 E	mail validation of Agreement Log from KSG members	42
Appendix 5 N	linutes from Kittiwake Steering Group meetings	48





Glossary of Acronyms

СЕН	Centre for Ecology and Hydrology
DCO	Development Consent Order
DEFRA	Department for Environment Food and Rural Affairs
ESC	East Suffolk Council
GYBC	Great Yarmouth Borough Council
KIMP	Kittiwake Implementation and Monitoring Plan
KSG	Kittiwake Steering Group
LBBG	Lesser Black-Backed Gull
LBBGSG	Lesser Black-Backed Gull Steering Group
ММО	Marine Management Organisation
PoW	Plan of Works
RSPB	Royal Society for the Protection of Birds
SoS	Secretary of State





1 INTRODUCTION

- 1. This document reports on the consultation which has occurred to date in order to develop the Kittiwake compensation for the Norfolk Vanguard and Norfolk Boreas offshore wind farms (collectively referred to as the Norfolk Projects).
- 2. This document forms part of the Kittiwake Implementation and Monitoring Plan (KIMP) which is submitted to the Secretary of State (SoS) for approval prior to the compensation being installed. Consultation will continue far beyond the point at which the KIMP is submitted and therefore this document is provided as a record of the consultation which has occurred thus far in order to establish the KIMP.





2 ESTABLISHING THE KITTIWAKE STEERING GROUP

3. Under paragraph 2 of the kittiwake compensation requirements within the Norfolk Boreas and Norfolk Vanguard Development Consent Orders (DCO) a Kittiwake Steering Group (KSG) must be established.

2.1 Defining the membership

- 4. The membership of the KSG has been determined through consultation with parties named in paragraph 3 of the Compensation Schedules (Natural England as the statutory nature conservation body and local planning authorities within whose administrative area artificial nests could be sited). To ensure a broad representation of experience and expertise during the development of the compensation measures other members have also been consulted as advisory bodies.
- 5. As named in the DCO, the core members of the KSG are:
 - a) Norfolk Boreas Limited and Norfolk Vanguard Limited (together the Norfolk Projects); and
 - b) Natural England.
- 6. Core members have and will continue to be consulted on matters pertaining to (but not limited to) kittiwake ecology, location and site suitability, detailed design, timetable for delivery, maintenance and monitoring, including planning considerations arising from such matters. Reaching agreement with core members on these issues has and will continue to be the primary focus of the KSG.
- 7. The following advisory members were not named in the DCO but accepted invites to form part of the KSG:
 - The Royal Society for the Protection of Birds (RSPB);
 - East Suffolk Council (ESC);
 - Great Yarmouth Borough Council (GYBC); and
 - The Marine Management Organisation (MMO).
- 8. The Department For Environment, Food and Rural Affairs (DEFRA) and the Broads Authority were also invited to join the steering group but declined their invitation due to resourcing constraints.
- 9. Advisory members have and will continue to be consulted on aspects of the Kittiwake Implementation and Monitoring Plan (KIMP) which are relevant to their area of expertise.

2.2 Plan of Works

10. Natural England requested that the Plan of Works (PoW) was agreed by process whereby the Norfolk Projects drafted the document and the KSG make comment as they would not have





resource to attend meetings. This approach was taken and the document developed through several rounds of review with the group.

- 11. The first draft of the KSG PoW was emailed to all members for review on March 10th 2022, with a request for comments to be returned by March 23rd 2022. Initial comments on the first draft PoW were returned by GYBC on March 17th 2022, and ESDC on March 24th 2022. A reminder for comments on the first draft PoW was emailed to all members on March 30th 2022, with a request for responses to be returned by April 7th 2022. Natural England, the RSPB and the MMO did not return any comments on the first draft PoW, before the stipulated deadline.
- A reminder email was sent to Natural England on 14th April 2022, requesting comments on the KSG PoW, in addition to the Benthic Steering Group and Lesser Black-Backed Gulls (LBBG) Steering Group PoWs.
- 13. At the first KSG meeting held on April 13th 2022, the RSPB apologised for not providing comments on the first draft PoW and requested an extension of the time period to review the PoW. It was agreed that the RSPB would return comments on the first draft PoW by April 27th 2022. These comments would be immediately circulated to the KSG for approval or rejection by May 4th 2022, with the intention for the PoW to be submitted to the SoS on May 13th 2022.
- 14. Natural England returned comments on the KSG PoW on 21st April 2022.
- 15. A reminder email was sent to the RSPB on 25th April 2022 requesting comments on the KSG PoW to be returned by 27th April 2022.
- 16. Following provision of comments from the RSPB and Natural England, the Norfolk Projects sent out an updated PoW with collated comments and an explanation of how they had been addressed on 6th May 2022. In this email it was requested that members confirm whether they agree with the changes by the 18th May 2022.
- 17. A reminder of the deadline was sent by the Norfolk projects morning of the 18th May 2022.





3 STEERING GROUP MEETINGS

3.1 Steering Group Meeting 1 (13th April 2022)

- Invitation letters were emailed to core and advisory members of the KSG on February 8th 2022 by Jake Laws and David Tarrant. The invitations included a request for a response to be returned by February 11th 2022.
- 19. Signed invitations to engage as a member of the KSG and the date they were returned are listed below and can be found in Appendix 1:
 - The RSPB (15th February 2022);
 - ESDC (10th February 2022);
 - GYBC (15th February 2022);
 - The MMO (10th February 2022); and
 - Natural England (21st April 2022).
- 20. Natural England agreed via email on 11th February 2022 to participate in the KSG, but did not initially return a signed invitation letter. On the 15th and 21st February 2022, Jake Laws sent two reminder emails to Natural England to return the signed invitation letters. A signed invitation letter was received from Natural England on 21st April 2022.
- 21. A selection of provisional dates for the first four KSG meetings were arranged using Doodle poll and links were emailed to all core and advisory members on 1st March 2022. Members were asked to use the Doodle poll links to fill in their availability for KSG meetings. For the first KSG meeting which was set to be held in early April, members were requested to respond by 4th March 2022. Two reminder emails were sent on 3rd March 2022 and 8th March 2022 reminding all members to fill in their availability using the Doodle poll links.
- 22. Jim Mckie was appointed as Chairperson for the LBBGSG and the LBBGSG members were notified of his appointment prior to the first meeting. Jim is independent of any of the members of the steering group and the organisations they represent and therefore his appointment was accepted by all members.
- 23. Natural England were unable to find availability for the proposed dates and confirmed they would not attend the first KSG meeting held on 13th April 2022.
- 24. A first draft PoW was sent to all members of the KSG for review on the 10th March 2022. A deadline of the 23rd March 2022 was set for members to return their comments on the draft PoW.
- 25. In preparation for the first KSG meeting, the following were emailed to all members of the KSG on the 30th March 2022:





- A proposed meeting agenda with a request for members to provide any amendments or additions by the 5th April 2022 so that the final agenda could be issued on the 7th April 2022;
- A Kittiwake Structure Concept Design Report;
- A kittiwake nesting study; and
- A skeleton plan for the KIMP.
- 26. Members were also reminded to provide comments on the draft PoW and a new deadline of 7th April 2022 was set for members to return any comments. Members were requested to have ready their initial comments on the skeleton KIMP, as there would be an opportunity to communicate the comments verbally at the first KSG meeting on 13th April 2022.
- 27. As Natural England were not available for the first KSG meeting, they were asked to provide comments on the skeleton KIMP prior to the first KSG meeting. Comments were returned on 21st April 2022, following KSG Meeting 1.
- 28. The final agenda for the first KSG meeting was emailed to all members on 7th April 2022, alongside a reminder for members to review the kittiwake structure Concept design report, kittiwake nesting study and skeleton KIMP, and have any comments ready for discussion on 13th April 2022.
- 29. During KSG Meeting 1 it was confirmed with the Steering Group members that the preference would be to hold one set of KSG meetings and discharge the compensation schedules for both Norfolk Vanguard and Norfolk Boreas in a combined approach as this would be a more efficient use of stakeholders input.
- 30. The final minutes from KSG Meeting 1 can be found in Appendix 5.

3.2 Steering Group Meeting 2 (30th June 2022)

- 31. Date options for KSG Meeting 2 were issued to members on April 6th 2022 and all parties were able to attend on June 30th 2022. Preparation material for the meeting was sent out on 15th June 2022 which included:
 - Final minutes from Norfolk projects KSG Meeting 1: No comments from attendees of the meeting were received and therefore the draft minutes circulated on 21st April 2022 were taken as final;
 - A proposed agenda for the meeting on the 30th with a request for any additions by the 21st June;
 - The Kittiwake Structure: detailed design report;
 - An exert from the KSG Actions log;
 - A first full draft of the KSG Agreement log (which forms Appendix 3 of this consultation report); and,
 - A confidential first full draft of the KIMP.





- 32. A final agenda with all pre meeting reading attached again for ease of reference was sent out on the 23rd June 2022.
- 33. The final minutes from KSG Meeting 2 can be found in Appendix 5.

3.3 Steering Group Meeting 3 (11th August 2022)

- 34. Invitations to the third KSG Meeting were issued to members via email on 20th May 2022 and all parties were able to attend on the 11th August 2022.
- 35. In preparation for the KSG Meeting 3 on the 11th August the following were emailed to KSG members on the 27th July 2022:
 - Final Minutes from Norfolk projects KSG Meeting 2: For approval at KSG meeting 3;
 - A proposed agenda for the meeting on the 11th August 2022 with a request for members to provide any amendments or additions by the 4th August 2022 so that the final Agenda could be issued the 5th August 2022;
 - An exert from the KSG Actions log this is included at the bottom of the proposed agenda; and,
 - The KSG Agreement log (see Appendix 3).
- 36. The final agenda for KSG Meeting 3 was emailed to members on 4th August 2022. Also contained within this email was a proposed review and sign off programme for the KIMP (see Appendix 2).
- 37. Members were notified that Chair Jim Mckie would be unable to attend KSG Meeting 4 in October and progress was being made with finding an independent stand-in chair.
- 38. The final minutes from KSG Meeting 3 can be found in Appendix 5.

3.3.1 BEIS amendment to PoW

39. Following The Department for Business, Energy and Industrial Strategy (BEIS) review of the KSG Plan of Works, BEIS requested that the wording of the Dispute Resolution Mechanism section of the Plan be changed from:

"if the dispute has not been resolved following a referral in accordance with this section, the details would be presented to the Secretary of State for Business Energy and Industrial Strategy alongside the documents for which the Secretary of State has to give approval and the Secretary of State would determine whether to approve those documents."

to

"if the dispute has not been resolved following a referral in accordance with this section, the core members shall settle the dispute by mediation in accordance with the Centre for Effective Dispute Resolution (CEDR) Model Mediation Procedure. Unless otherwise agreed between the core members, the mediator will be nominated by CEDR."

40. This was communicated to the KSG via email on 1st August 2022 and a deadline of 11th August 2022 was given for members to either approve or deny this change.





3.4 Steering Group Meeting 4 (6th October 2022)

- 41. Invitations to the fourth KSG Meeting were issued to members via email on 11th July 2022.
- 42. In order to finalise the KIMP for submission Version 2 was circulated to the KSG on the 25th August 2022 in accordance with the agreed timetable for completion which had been discussed at KSG meeting 2 (Appendix 2). The email also requested that comments were returned by 15th September 2022.
- 43. In preparation for the KSG Meeting 4 on the 6th October 2022, the following were emailed to KSG members on the 22nd September 2022:
 - PDF instructions of how to access Box;
 - A proposed agenda for the meeting on the 6th October 2022 with a request for members to provide any amendments or additions by the 29th September 2022 for the final Agenda to be issued on the 30th September 2022;
 - A PDF version of KIMP Version 3 showing track changes and what updates have been made;
 - A clean version of KIMP Version 3 with a request for members to make comments on this version;
 - A copy of the KIMP Annex 1 Consultation Report and a list of the appendices that will be included in the Annex once complete;
 - A copy of KIMP Appendix 2 KIMP review and sign-off programme;
 - A copy of KIMP Appendix 3 Agreement Log (see Appendix 3);
 - PDF versions of the minutes from KSG Meetings 1, 2 and 3;
 - Annex 2 Kittiwake Structure Concept Design Report (Box link);
 - Annex 3 Kittiwake Nesting Success on Artificial Structures (Box link);
 - Annex 4 Kittiwake Structure Detailed Design Report (Box link);
 - Annex 5 Kittiwake Structure Final Detailed Drawings (Box link).
- 44. During the fourth KSG Meeting, it was agreed that the purpose of the fifth KSG Meeting was to finalise how the monitoring of kittiwakes will be undertaken. Members decided that it would be sensible to merge the fifth KSG and fifth lesser black-backed gull (LBBG) SG meetings into one meeting, to discuss the monitoring of both kittiwakes and LBBGs.
- 45. Members were reminded to return any outstanding comments on KIMP Version 3, with a request to do so by 7th October 2022.
- 46. The final minutes from KSG 4 can be found in Appendix 5.





3.4.1 Stand-in Chair

- 47. Chair, Jim Mckie was unable to attend the fourth KSG Meeting held on 6th October 2022 due to unforeseen circumstances.
- 48. KSG members were informed of Jim Mckie's upcoming absence in the third KSG Meeting and that the Norfolk Projects was progressing the search for an independent stand-in Chair, but members were also welcome to make suggestions.
- 49. In an email to the KSG sent on the 5th September 2022, Ian Davies, a former deputy head of Marine Scotland Science, was confirmed as the stand-in Chair for the fourth KSG and LBBGSG Meetings held on October 6th 2022 and October 5th 2022.





4 KIMP REVIEW

- 50. A skeleton version of the KIMP was sent to KSG members to review on 30th March 2022, with a request for members to have comments ready for the first KSG Meeting.
- 51. Following the first KSG Meeting, a first full draft of the KIMP and the Kittiwake Artificial Nesting Structure Detailed Design Report were emailed to members on 15th June 2022, with a request for members to have comments ready by KSG Meeting 2.
- 52. A reminder email was sent to KSG members on 6th July 2022, with a request for members to review the draft KIMP and return comments by 20th July 2022.
- 53. On 21st July 2022, Natural England provided comments on the draft KIMP and Detailed Design Report. Norfolk Projects responded to Natural England on 27th July 2022 with further information to address their comments. The RSPB and ESDC also returned comments on the draft KIMP. The MMO and Great Yarmouth Borough Council did not return comments on the draft KIMP.
- 54. Version 2 of the KIMP was emailed to KSG members on 25th August 2022, with a request for members to review the KIMP and return comments by 15th September 2022. ESDC, Natural England and the RSPB returned comments on KIMP Version 2. The MMO had no comments to add and stated they would be deferring to Natural England on the grounds of compensation.
- 55. A breakdown of the sections to be included in the final KIMP was outlined in the email sent on 25th August 2022. In an email sent to KSG members on the 22nd September 2022, it was confirmed that the final KIMP will consist of:
 - The KIMP document;
 - Annex 1 Kittiwake Compensation Consultation Report, with the following 5 appendices;
 - Appendix 1 Signed Invitation Letters.
 - Appendix 2 KIMP review and sign-off programme.
 - Appendix 3 Agreement Log.
 - Appendix 4 Email confirmation from members that the Agreement Log is correct.
 - Appendix 5 Minutes from KSG Meetings.
 - Annex 2 Kittiwake Structure Concept Design Report;
 - Annex 3 Kittiwake Nesting Success on Artificial Structures;
 - Annex 4 Kittiwake Structure Detailed Design Report; and,
 - Annex 5 Kittiwake Structure Final Detailed Drawings.





- 56. Version 3 of the KIMP was emailed to KSG members on 22nd September 2022, with a request for members to review the KIMP and return comments by the 6th October 2022. At the fourth KSG Meeting, members were reminded to return comments by 7th October 2022.
- 57. The final version of the KIMP (KIMP Version 4) was circulated to KSG members on 14th October 2022, with a request for members to review the KIMP and return any final comments by 25th October 2022, for submission to the SoS on 28th October 2022.





5 KITTIWAKE COMPENSATION PRODUCTIVITY AND ADAPTIVE MANAGEMENT MEETING

- 58. During the third KSG Meeting, it was agreed that it would be beneficial to have a separate expert group meeting regarding Kittiwake productivity and adaptive management. Ornithologists from the RSPB and Centre for Ecology and Hydrology (CEH) who were external to the KSG were recommended as experts to invite to the meeting.
- 59. On 25th August 2022, an invitation to the expert meeting due to be held on 14th September was emailed to the following required and optional attendees:
 - Required attendees:
 - Mark Trinder (MacArthur Green);
 - Aly McCluskie (RSPB);
 - Francis Daunt (CEH);
 - Kate Searle (CEH);
 - David Tarrant (Norfolk Projects);
 - Jake Laws (Norfolk Projects);
 - Caitlin Lyng (Norfolk Projects, KSG secretariate)
 - Optional attendees:
 - Andrew Dodd (RSPB);
 - Jamie Murphy (RSPB);
 - Martin Kirby (Natural England);
 - Louise Burton (Natural England);
 - Alan Gibson (Natural England).
- 60. Optional attendees representing the RSPB and Natural England declined the invitation or were unable to join the Expert Meeting. All required attendees were able to attend, apart from Francis Daunt, who was unable to attend due to covid.
- 61. On 6th September 2022 a briefing note was circulated to the required attendees of the Expert Meeting to be read in preparation for the meeting. The outcomes of this meeting were reported to the KSG during meeting 4 (see Appendix 5 for details) and updates were made to the KIMP as required and minutes from the meeting can be provided upon request to Norfolk Projects.





6 AGREEMENT LOG

- 62. As described throughout this document an Agreement Log included as Appendix 3 of this report has been progressed by the KSG. This was updated during each meeting and circulated prior to and following each meeting. Members have been asked to review the Agreement Log and if necessary make any amendments in track changes in order to more accurately reflect their position.
- 63. Emails from KSG members verifying that the Agreement Log represents a true record of their position, and that they have contributed to the production of the KIMP, are provided as Appendix 4 of this document.





APPENDIX 1 SIGNED INVITATION LETTERS FROM KSG MEMBERS.

64. Signed invitations to engage as a member of the KSG can be found on the Norfolk Boreas and Norfolk Vanguard planning inspectorate web pages.

Norfolk Boreas:

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolkboreas/?ipcsection=docs

Norfolk Vanguard:

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolkvanguard/?ipcsection=docs

65. Copies of the documents are also provided below.



East Suffolk Council, Riverside, 4 Canning Road, Lowestoft, NR33 0EQ Vattenfall Wind Power Ltd Norfolk Boreas Ltd 5th Floor 70 St Mary Axe London EC3A 8BE

Date: 08/02/2022	Contact:	Phone:
	E-mail:	

The Norfolk Boreas Offshore Wind Farm Order 2021, Schedule 19, Part 1

Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss

Invitation to engage as a member of the Kittiwake Steering Group

Dear East Suffolk Council,

Vattenfall's Norfolk Boreas Offshore Wind Farm is being developed by Norfolk Boreas Limited. We are writing to you in relation to the kittiwake compensation specified within the Development Consent Order (DCO) of the wind farm and detailed in documents supporting the Secretary of State's Decision letter.

In accordance with Schedule 19 Part 1 of the Norfolk Boreas DCO, a Kittiwake Steering Group (KSG) must be formed to consult on the preparation, scope, and delivery of the kittiwake compensation, prior to submission to the Secretary of State for approval. Should Norfolk Vanguard Offshore Wind Farm also be awarded development consent a combined Kittiwake Steering Group will be progressed.

Prior to commencement of the authorised development the plan of work for the KSG must be approved by the Secretary of State. The requirement is detailed in paragraphs 1 and 2, of Schedule 19, Part 1 (pp 368 and 369) of the

Norfolk Boreas Limited invite you to engage as an advisory member of the (potentially combined) Kittiwake Steering Group regarding kittiwake compensation.

As an advisory member of the Kittiwake Steering Group, you will be invited to input into the process on aspects which directly relate to your organisation, you will be sent relevant documents to review and will be requested to join steering group meetings when appropriate].

We would like to convene the KSG as soon as possible and following your acceptance of this invite we will aim to set up a first meeting in February or early March. At this initial meeting we would like to progress as far as possible the plan of work for the KSG which will include:

(a) terms of reference of the KSG:





- (b) details of the membership of the KSG;
- (c) details of the schedule of meetings, timetable for preparation of the Kittiwake
- Implementation and Monitoring Plan and reporting and review periods; and
- (d) the dispute resolution mechanism.

These will form the Plan of Works required to discharge Schedule 19, Part 1 paragraph 2 of the Norfolk Boreas DCO.

We would be grateful if you would please respond to this letter by countersigning below to confirm your understanding of the request and your organisations intention to engage with Norfolk Boreas Limited.

If you have any queries in relation to this letter, please do not hesitate to contact

For and on behalf of Norfolk Boreas Limited,



Ruari Lean Norfolk Boreas and Norfolk Vanguard Project Manager

On behalf of East Suffolk Council I confirm participation on the Norfolk Boreas Kittiwake **Steering Group**



Philip Ridley, Head of Planning & Coastal Management

10 February 2022

Date

Signature



Marine Management Organisation Lancaster House Hampshire Court Newcastle upon Tyne NE4 7YH Vattenfall Wind Power Ltd Norfolk Boreas Ltd 5th Floor 70 St Mary Axe London EC3A 8BE Tel:

Date: 08/02/2022 Contact: E-mail: Phone:

The Norfolk Boreas Offshore Wind Farm Order 2021, Schedule 19, Part 1

Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss

Invitation to engage as a member of the Kittiwake Steering Group

Dear Marine Management Organisation

Vattenfall's Norfolk Boreas Offshore Wind Farm is being developed by Norfolk Boreas Limited. We are writing to you in relation to the kittiwake compensation specified within the Development Consent Order (DCO) of the wind farm and detailed in documents supporting the Secretary of State's Decision letter.

In accordance with Schedule 19 Part 1 of the Norfolk Boreas DCO, a Kittiwake Steering Group (KSG) must be formed to consult on the preparation, scope, and delivery of the kittiwake compensation, prior to submission to the Secretary of State for approval. Should Norfolk Vanguard Offshore Wind Farm also be awarded development consent a combined Kittiwake Steering Group will be progressed.

Prior to commencement of the authorised development the plan of work for the KSG must be approved by the Secretary of State. The requirement is detailed in paragraphs 1 and 2, of Schedule 19, Part 1 (pp 368 and 369) of the

Norfolk Boreas Limited invite you to engage as a Core member of the (potentially combined) Kittiwake Steering Group regarding kittiwake compensation.

As a Core member you will be invited to review all documentation, attend all steering group meetings, develop and agree the plan of works (as described in schedule 19) and proactively engage to develop and progress the kittiwake compensation].

We would like to convene the KSG as soon as possible and following your acceptance of this invite we will aim to set up a first meeting in February or early March. At this initial meeting we would like to progress as far as possible the plan of work for the KSG which will include:

(a) terms of reference of the KSG:





- (b) details of the membership of the KSG;
- (c) details of the schedule of meetings, timetable for preparation of the Kittiwake
- Implementation and Monitoring Plan and reporting and review periods; and
- (d) the dispute resolution mechanism.

These will form the Plan of Works required to discharge Schedule 19, Part 1 paragraph 2 of the Norfolk Boreas DCO.

We would be grateful if you would please respond to this letter by countersigning below to confirm your understanding of the request and your organisations intention to engage with Norfolk Boreas Limited.

If you have any queries in relation to this letter, please do not hesitate to contact David Tarrant

For and on behalf of Norfolk Boreas Limited



Ruari Lean Norfolk Boreas and Norfolk Vanguard Project Manager

On behalf of The Marine Management Organisation I confirm participation on the Norfolk Projects Kittiwake Steering Group

10/02/2022

Signature

Date



Royal Society for the Protection of Birds The Lodge Potton Road Sandy Bedfordshire SG19 2DL Vattenfall Wind Power Ltd Norfolk Boreas Ltd 5th Floor 70 St Mary Axe London EC3A 8BE

Date: 09/02/2022	Contact: Ruari Lean (cc Dave Tarrant)	Phone:
	E-mail:	

The Norfolk Boreas Offshore Wind Farm Order 2021, Schedule 19, Part 1

Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss

Invitation to engage as a member of the Kittiwake Steering Group

Dear Royal Society for the Protection of Birds

Vattenfall's Norfolk Boreas Offshore Wind Farm is being developed by Norfolk Boreas Limited. We are writing to you in relation to the kittiwake compensation specified within the Development Consent Order (DCO) of the wind farm and detailed in documents supporting the Secretary of State's Decision letter.

In accordance with Schedule 19 Part 1 of the Norfolk Boreas DCO, a Kittiwake Steering Group (KSG) must be formed to consult on the preparation, scope, and delivery of the kittiwake compensation, prior to submission to the Secretary of State for approval. Should Norfolk Vanguard Offshore Wind Farm also be awarded development consent a combined Kittiwake Steering Group will be progressed.

Prior to commencement of the authorised development the plan of work for the KSG must be approved by the Secretary of State. The requirement is detailed in paragraphs 1 and 2, of Schedule 19, Part 1 (pp 368 and 369) of the secretary of the secr

Norfolk Boreas Limited invite you to engage as an advisory member of the (potentially combined) Kittiwake Steering Group regarding kittiwake compensation.

As an advisory member of the Kittiwake Steering Group you will be invited to input into the process on aspects which directly relate to your organisation, you will be sent relevant documents to review and will be requested to join steering group meetings when appropriate.

We would like to convene the KSG as soon as possible and following your acceptance of this invite we will aim to set up a first meeting in February or early March. At this initial meeting we would like to progress as far as possible the plan of work for the KSG which will include:

(a) terms of reference of the KSG:



- (b) details of the membership of the KSG;
- (c) details of the schedule of meetings, timetable for preparation of the Kittiwake
- Implementation and Monitoring Plan and reporting and review periods; and
- (d) the dispute resolution mechanism.

These will form the Plan of Works required to discharge Schedule 19, Part 1 paragraph 2 of the Norfolk Boreas DCO.

We would be grateful if you would please respond to this letter by countersigning below to confirm your understanding of the request and your organisations intention to engage with Norfolk Boreas Limited.

If you have any queries in relation to this letter, please do not hesitate to contact

For and on behalf of Norfolk Boreas Limited



Ruari Lean Norfolk Boreas and Norfolk Vanguard Project Manager

On behalf of Royal Society for the Protection of Birds I confirm participation on the Norfolk Projects Kittiwake Steering Group

15 Ecomon 2022 Date



Natural England		Vattenfall Wind Power Ltd
Lancaster House		Norfolk Boreas Ltd
Hampshire Court		5th Floor
Newcastle upon Tyne		70 St Mary Axe
NE4 7YH		London
		EC3A 8BE
		Tel:
Data		
Date: 15/02/2022	Contact: Ruari Lean (cc Dave Tarrant)	Phone:
	E-mail:	

The Norfolk Boreas Offshore Wind Farm Order 2021, Schedule 19, Part 1

Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss

Invitation to engage as a member of the Kittiwake Steering Group

Dear Natural England

Natural England

Vattenfall's Norfolk Boreas Offshore Wind Farm is being developed by Norfolk Boreas Limited. We are writing to you in relation to the kittiwake compensation specified within the Development Consent Order (DCO) of the wind farm and detailed in documents supporting the Secretary of State's Decision letter.

In accordance with Schedule 19 Part 1 of the Norfolk Boreas DCO, a Kittiwake Steering Group (KSG) must be formed to consult on the preparation, scope, and delivery of the kittiwake compensation, prior to submission to the Secretary of State for approval. Should Norfolk Vanguard Offshore Wind Farm also be awarded development consent a combined Kittiwake Steering Group will be progressed.

Prior to commencement of the authorised development the plan of work for the KSG must be approved by the Secretary of State. The requirement is detailed in paragraphs 1 and 2, of Schedule 19, Part 1 (pp 368-370) of the

Norfolk Boreas Limited invite you to engage as a Core member of the (potentially combined) Kittiwake Steering Group regarding kittiwake compensation.

As a Core member you will be invited to review all documentation, attend all steering group meetings, develop and agree the plan of works (as described in schedule 19) and proactively engage to develop and progress the kittiwake compensation].

We would like to convene the KSG as soon as possible and following your acceptance of this invite we will issue a draft plan of works for your review. Then at the first meeting we would like to formally sign off the Plan of Works for the KSG which will include:

- (a) terms of reference of the KSG:
- (b) details of the membership of the KSG;



- (c) details of the schedule of meetings, timetable for preparation of the Kittiwake Implementation and Monitoring Plan and reporting and review periods; and
- (d) the dispute resolution mechanism.

These will form the Plan of Works required to discharge Schedule 19, Part 1 paragraph 2 of the Norfolk Boreas DCO.

We would be grateful if you would please respond to this letter by countersigning below to confirm your understanding of the request and your organisations intention to engage with Norfolk Boreas Limited.

If you have any queries in relation to this letter, please do not hesitate to contact Dave Tarrant

For and on behalf of Norfolk Boreas Limited



Ruari Lean Norfolk Boreas and Norfolk Vanguard Project Manager

On behalf of Natural England I confirm participation on the Norfolk Boreas Kittiwake Steering Group



Signature

21st April 2022

Date



Great Yarmouth Borough Council Hall Plain, Great Yarmouth NR30 2QF Vattenfall Wind Power Ltd Norfolk Boreas Ltd 5th Floor 70 St Mary Axe London EC3A 8BE

Date: 08/02/2022



The Norfolk Boreas Offshore Wind Farm Order 2021, Schedule 19, Part 1

Flamborough and Filey Coast Special Protection Area: Delivery of measures to compensate for kittiwake loss

Invitation to engage as a member of the Kittiwake Steering Group

Dear Great Yarmouth Borough Council,

Vattenfall's Norfolk Boreas Offshore Wind Farm is being developed by Norfolk Boreas Limited. We are writing to you in relation to the kittiwake compensation specified within the Development Consent Order (DCO) of the wind farm and detailed in documents supporting the Secretary of State's Decision letter.

In accordance with Schedule 19 Part 1 of the Norfolk Boreas DCO, a Kittiwake Steering Group (KSG) must be formed to consult on the preparation, scope, and delivery of the kittiwake compensation, prior to submission to the Secretary of State for approval. Should Norfolk Vanguard Offshore Wind Farm also be awarded development consent a combined Kittiwake Steering Group will be progressed.

Prior to commencement of the authorised development the plan of work for the KSG must be approved by the Secretary of State. The requirement is detailed in paragraphs 1 and 2, of Schedule 19, Part 1 (pp 368 and 369) of the secretary of the secr

Norfolk Boreas Limited invite you to engage as an advisory member of the (potentially combined) Kittiwake Steering Group regarding kittiwake compensation.

As an advisory member of the Kittiwake Steering Group, you will be invited to input into the process on aspects which directly relate to your organisation, you will be sent relevant documents to review and will be requested to join steering group meetings when appropriate.

We would like to convene the KSG as soon as possible and following your acceptance of this invite we will aim to set up a first meeting in February or early March. At this initial meeting we would like to progress as far as possible the plan of work for the KSG which will include:



PB5640.009.0009 Page 25



- (a) terms of reference of the KSG:
- (b)
- (b) details of the membership of the KSG;
- (c) details of the schedule of meetings, timetable for preparation of the Kittiwake Implementation and Monitoring Plan and reporting and review periods; and
- (d) the dispute resolution mechanism.

These will form the Plan of Works required to discharge Schedule 19, Part 1 paragraph 2 of the Norfolk Boreas DCO.

We would be grateful if you would please respond to this letter by countersigning below to confirm your understanding of the request and your organisations intention to engage with Norfolk Boreas Limited.

If you have any queries in relation to this letter, please do not hesitate to contact

For and on behalf of Norfolk Boreas Limited,



Ruari Lean Norfolk Boreas and Norfolk Vanguard Project Manager

On behalf of Great Yarmouth Borough Council I confirm participation on the Norfolk Projects Kittiwake Steering Group

15th February 2022

Signature

Date





APPENDIX 2 KITTIWAKE REVIEW AND SIGN-OFF PROGRAMME

66. Provided below is the agreed programme of review and sign off for the LBBIMP

Stage	Date	Time period
DT to circulate V2 of the KIMP for review	25 th August	Two weeks following meeting 3
KSG to review and provide comment	15 th September	Three weeks to review
DT circulate V3 of KIMP to KSG	22 nd September	One Week to address comments
KSG to review and provide comment	At KSG Meeting 4 on the 6 th October (before meeting if possible)	Two Weeks
DT circulate V4 of KIMP to KSG	13 th October	One week
KSG to review and provide comment	25 th October	8 days
Finalise and Submit to SoS	28 th October	3 days





APPENDIX 3 KSG AGREEMENT LOG

67. Provided below is the KSG Agreement Log at the time of submission of the KIMP to the Secretary of State.





Norfolk Projects Offshore Wind Farms Kittiwake Steering Group Agreement Log

Developer: Norfolk Projects Document Reference: PB5640.008.0020

Date: November 2022 Revision: Version 1 Author: Royal HaskoningDHV

Photo: Kentish Flats Offshore Wind Farm





Date	Issue No.	Remarks / Reason for Issue	Author	Checked	Approved
06/07/2022	1D	First Issue for KSG Review	CL/DT	LB	JL
27/07/2022	2D	Issue for KSG Review	DT	MT	LB
16/08/2022	3D	Issue for KSG Review	LB	DT	JL
10/08/2022	4D	Issue for approval by the KSG	LB	JL	JL
02/11/2022	1F	Issue for SoS Approval	DT	CL	JL







Table of Contents

1	Background
2	Agreement Log





Glossary of Acronyms

BEIS	Department for Business, Energy & Industrial Strategy
EA1N	East Anglia 1 North
EA2	East Anglia 2
ESC	East Suffolk Council
FFC	Flamborough and Filey Coast
GYBC	Great Yarmouth Borough Council
KSG	Kittiwake Steering Group
ММО	Marine Management Organisation
NE	Natural England
PoW	Plan of Work
RAG	Red, Amber, Green
RSPB	Royal Society for the Protection of Birds
SoS	Secretary of State
SPA	Special Protection Area
SPR	ScottishPower Renewables





1 Background

- This Agreement Log has been prepared between the members of the Kittiwake Steering Group and the Norfolk Projects, to set out the areas of agreement or disagreement in relation to the items which require discussion as detailed in Schedules 19 and 17 of the Norfolk Boreas and Norfolk Vanguard Orders.
- 2. The members of the Kittiwake Steering Group (KSG) include
 - East Suffolk Council (ESC)
 - Great Yarmouth Borough Council (GYBC)
 - Marine Management Organisation
 - Natural England
 - Royal Society for the Protection of Birds (RSPB)
- 3. The independent chairperson appointed to oversee the LBBGSG is Jim McKie
- 4. The Steering Group, together with The Norfolk Projects, aim to
 - Deliver kittiwake compensation in an effective and timely manner,
 - Establish appropriate monitoring plan to ensure success of kittiwake compensation, and
 - Develop appropriate adaptive management measures.
- 5. The agreement log has been structured to reflect the topics of discussion between the members of the KSG and the Norfolk Projects. The agreement logs outline all topic specific matters agreed, not agreed and any actions to resolve the areas of disagreement. Matters that are not agreed will be the subject of ongoing discussion wherever possible to resolve or refine the extent of disagreement between the parties.
- 6. Where matters are already agreed these are marked as green.
- Scottish Power Renewables (SPR) was in attendance from the third and fourth KSG Meetings (11th August 2022 and 6th October 2022).



2 Agreement Log

Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо
Plan of Work for Steering Gro	up					
Agreement on the Plan of Work Paragraph 2 (a to d) of compensation schedule	Drafted and updated to address comments from all KSG members and received email approval from all members to proceed under the terms detailed within. Submitted the documents.	NE are content for updated PoW to be finalised without reference to EA1N and EA2, as long as their other amendments are taken forward. NE sent email agreement regarding the updated PoW on 27/05/2022. BEIS requested amendment approved (with additional paragraph) 11/08/2022.	ESC were happy to proceed with the revised PoW. Grahame Stuteley sent email agreement regarding the updated PoW on 19/05/2022. BEIS requested amendment approved (with additional paragraph) 11/08/2022.	GYBC were happy to proceed with the revised PoW. Kim Balls sent email agreement regarding the updated PoW on 27/05/2022. BEIS requested amendment approved (with additional paragraph) 11/08/2022.	RSPB were happy to proceed with the updated PoW. Andrew Dodd sent email agreement regarding the updated PoW on 17/05/2022. In principle agreement on BEIS requested amendment (with additional paragraph) 11/08/2022, confirmed by email on 17/08/22.	Agreed to p call on 20/0 agreement updated Po 24/06/2022 BEIS reques approved (paragraph)
Structures						
Agreement on the proposed locations (paragraph 4 (a) of Compensation schedule) - general	Norfolk Projects have selected four possible onshore locations and are in the process of identifying possible offshore locations. Order of preference is Lowestoft port and, Great Yarmouth Port, Herbert Barns Park and Bure Park (latter two are both within Great Yarmouth). All options need to be kept in the mix until planning permission has been granted and landowner agreements are signed	Natural England, whilst acknowledging the need to maintain options, have a strong preference for the Lowestoft location. Great Yarmouth Port is a less attractive option but has the potential to be a viable location. We would consider other options within Lowestoft or an offshore structure near to the colony as strongly preferable to the Bure Park and Herbert Barnes Park options, which we consider highly unlikely to attract kittiwake.	Appreciate that options need to be maintained at this stage, but ESC can only comment on sites proposed within our District.	Appreciate that options need to be maintained at this stage but there is the potential for some challenges with LVIA and interactions with other planning applications at the GY port site and possible significant impacts at the two inland locations given their designated status.	Strong ecological preference for the Lowestoft location. Whilst appreciative that options need to be maintained at this stage, RSPB would consider all Lowestoft locations as preferable to any of the options at Great Yarmouth. At Great Yarmouth, the RSPB's preference is for the port location.	When the f presented of meeting 1 of were raised
Agreement that the proposed location at the port of Lowestoft is a suitable location for a nesting structure	Propose that this location would be suitable as precedent has been set, close to, sea and existing colony and has good access	At KSG meeting 3 Natural England confirm that in their opinion the proposed location at the Port of Lowestoft is suitable for Kittiwake compensation	At KSG meeting 3 ESC confirmed that in their opinion the proposed location at the Port of Lowestoft is suitable for Kittiwake compensation.	Do not disagree but is outside of GYB remit to comment	At KSG meeting 3 RSPB confirmed that in their opinion the proposed location at the Port of Lowestoft is suitable for Kittiwake compensation	At KSG mee confirmed f opinion the location at Lowestoft i Kittiwake c
Agreement on the Wall Structure design (paragraph 4 (c) of Compensation schedule) – Design	Designs have been updated to address comments on Individual hatches for nest Mess avoidance on lower nests	Suggested that smaller hatches should be included to limit disturbance to fewer nests. This feature has been included and agreed.	Design should prevent mess being deposited on nests below and for design to prevent birds from nesting on the access structure. These have both been	Agree the designs as presented at KSG meeting 2	Agree the designs as presented at KSG meeting 2	At KSG mee confirmed agreement



	Outstanding Actions
p proceed during a /05/2022 email nt regarding the PoW on 22. ested amendment (with additional n) 11/08/2022.	None
e four sites were d during KSG L no objections ed.	Agreement based on Lowestoft as the preferred location.
eeting 3 MMO d that in their ne proposed at the Port of t is suitable for compensation	
eeting 3 MMO d that in their nt with wall design.	



Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо	Outstanding Actions
	 Prevention of nesting on access structure 	Concerned that large gulls might nest on the roof so it should be designed in such a way to ensure this is not an issue, including considering the use of deterrents. At KSG meeting 3 confirmed their agreement with wall design.	addressed and whilst ESC agrees with the rationale for the final design, formal approval is subject to planning.				
Agreement on the Wall Structure design (paragraph 4 (c) of Compensation schedule) -Layout of structures	Orientation has been prioritised when undertaken site layout work, to maximise the ledge space available for nests whilst maintaining a suitable aspect of the nests. This has resulted in three separate wall structures. A 3D model has been produced to show the space between the wall structures which is approx. 7.5m.	Need to see the reasoning for designing the layout as currently proposed Concerned the design for walls might be too constrained to allow good occupancy rates. As the walls are not as tall as the towers, the short spaces between the walls might deter kittiwake from nesting where the aerial access/departure is compromised. 20.07.22 Request a 3D model to show Kittiwake access between wall structures. Now that this has been provided NE are happy with the indicative models. However, note that gaps between walls should be maintained in final detailed design. In agreement with wall design (11/08/2022).	Whilst ESC agrees with the rationale for the final design, formal approval is subject to planning (11/08/2022). Planning permission was granted by ESC 4/10/2022	In agreement with wall design (11/08/2022).	 Have some concerns regarding how close the wall structures are to each other and the potential use of barbed wire for predator proofing due to potential bird/chick entanglement. On seeing 3D models is now happy with spacing between walls. In agreement with wall design (11/08/2022). 	In agreement with wall design (11/08/2022).	
Specification of fence for wall structure	 The specification of the fence is included withing the KIMP in section 5.4. It will adhere to the guidance provided in the RSPB manual on the Predator Exclusion Fence design (White & Hirons 2019) and will: Have a height of 1.8m, Have a mesh size of 5 x 10cm, Be topped with a 45° angled overhang c. 60cm (smooth material or 	NE await circulation before commenting. Agreed at KSG 4	Agreed at KSG 4	GYBC await circulation before commenting. Agreed at KSG 4	Satisfied with the commitment to follow RSPB guidance on fence design, with key considerations to avoid use of barbed wire and use an appropriate mesh size that will avoid entrapment risk whilst preventing access by predators.	Agreed at KSG 4	





Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ММО
	 floppy mesh) to the outside, A narrow skirt will be pinned at the base to the existing concrete using tamper proof bolts, Have a wire with min gauge of 1mm, Have a design life of at least 35 years (with regular maintenance) and be maintained or replaced as necessary for the duration of the compensation; and Be constructed with particular care to ensure that potential weak points (corners and gates) are well installed with minimal gaps. 					
Agreement that the wall structure is most appropriate at the Lowestoft location	Proposed at KSG meeting 2. Best option because it offers the same benefits as the towers, has a precedent for success in the area and due to lower height, would be hidden by existing wall	Agreed at KSG meeting 3	Agreed at KSG meeting 3, due to the reasons expressed in the Steering Group Meetings	Agreed at KSG meeting 3	Agreed at KSG meeting 3	Agreed at
Agreement that either a wall or tower structure could be used at the Port of Great Yarmouth	Due to the orientation of the site and lack screening in the landscape either structure could be used at the Port of Great Yarmouth.	In principle agreement of either a wall or tower structure being used at the Port of Great Yarmouth. Indicated a slight preference for a tower structure at KSG 4.	ESC appreciate that options need to be maintained at this stage, but ESC can only comment on sites proposed within our District.	In principle agreement of either a wall or tower structure being used at the Port of Great Yarmouth.	In principle agreement of either a wall or tower structure being used at the Port of Great Yarmouth. As stated above, the RSPB has a strong ecological preference for the Lowestoft location	In principle either a wa structure b Port of Gre



	Outstanding Actions
t KSG meeting 3	
le agreement of vall or tower being used at the reat Yarmouth.	



Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо
Agreement on the number of nests being provided	Norfolk Projects presented in its In-principle compensation documents three different figures for the number of collisions of Kittiwakes, based on the Applicants assessment and the average and upper 95% confidence estimates applying Natural England's precautionary approach. The respective mortalities were 5, 21 and 60 for Vanguard and 6, 14 and 28 for Boreas. The number of nest spaces required to compensate for each of these values was calculated and presented (Vanguard: 51, 213, 612; Boreas: 66, 150, 300) applying the same method in each case. There was therefore a clear connection in the Applicant's submissions between the collision estimates and the scale of compensation required. The Secretary of State stated in the HRA documents that the impacts to be compensated were the middle values (Vanguard: 21; Boreas: 14), which can be seen, equate to nest provisions of 213 and 150 respectively. Therefore, these have been used as the basis for the Norfolk Projects' compensation structure designs.	The KIMP has been developed on the basis that the BEIS SoS has mandated compensation at a level of 35 kittiwakes per annum being recruited into the wider kittiwake population. Natural England considers the location, design and scale of what the KIMP proposes at Lowestoft has the potential to provide this level of compensation. Natural England recognise the scale of compensation proposed is likely to provide an equivalent number of recruits to those lost at FFC SPA into the biogeographic population. However, Natural England's view is that the scale of compensation should seek to provide a realistic chance of the national site network, rather than the biogeographic population, receiving an equivalent number of recruits to that lost. In this context the current compensation is likely to be insufficient to deliver this. While 432 nests would provide appropriate compensation for Boreas (and potentially Boreas plus East Anglia ONE North ((EA1N)) and East Anglia Two ((EA2)), we do not consider that it would provide appropriate compensation for both Norfolk projects (irrespective of EA1N and EA2's requirements).	Have no comment on the number of nests that is required but will defer to NE on this matter.	Have no comment on the number of nests that is required.	The RSPB notes the description provided by the Norfolk Projects and that these numbers have been used for detailed design of the artificial nesting structures. 10/10/2022 RSPB notes new wording drafted since circulation of this version following discussions between Norfolk Projects and NE. 26/10/10 RSPB reviewed the final version of the agreement log and confirm that the initial position stated above remains an accurate reflection of our position	Have no number of required.



	Outstanding Actions
omment on the nests that is	



Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо
		Natural England considers that providing for c850 nest spaces in appropriate locations would provide an appropriate level of compensation. This would also better reflect Natural England's view of the submissions made by the Norfolk projects during the pre-determination consultations, which referred to providing 200- 300 nest spaces for Boreas and 600 for Vanguard respectively (based on the upper 95% confidence interval mortality estimates).				
Agreement on the Tower Structure design (paragraph 4 (c) of Compensation schedule)	Designs have been updated to address comments relevant comments made on wall structure including Individual hatches for nest. Mess avoidance on lower nests.	Raised concern regarding the large central bar and how this may create a predation opportunity for gulls. However, if this is addressed through Option 2 (Slide 27) as presented in KSG meeting 3 then this agreed.	Raised concern regarding the height of the tower if installed at Lowestoft as it will not be screened and suggested lowering the structure into the foundations if possible. Now that it has been confirmed that the tower structure will	Agreed at KSG meeting 3	Agreed at KSG 4	Agreed at
		Following the provision of Annex 5 of the KIMP showing the change in central ledge design this is now agreed	not be installed at Lowestoft ESC have no further comment on tower design.			
Programme (paragraph 4 (d)	of Compensation schedule)		1			
Programme	The programme is driven by the need for the compensation to be in place four full breeding seasons prior to turbines turning. In order to achieve government and project targets that required the fence to be operational prior to the 2023 breeding season. The proposed programme to achieve this was presented at KSG1 and a recap during KSG2.	It is agreed that the programme is suitable to deliver the compensation package in time to be in place four full breeding seasons prior to turbines becoming operational (subject to all permissions being in place).	It is agreed that the programme is suitable to deliver the compensation package in time to be in place four full breeding seasons prior to turbines becoming operational (subject to all permissions being in place).	It is agreed that the programme is suitable to deliver the compensation package in time to be in place four full breeding seasons prior to turbines becoming operational (subject to all permissions being in place).	It is agreed that the programme is suitable to deliver the compensation package in time to be in place four full breeding seasons prior to turbines becoming operational (subject to all permissions being in place).	It is agreed programm deliver the package in place four seasons pr becoming (subject to being in pl



	Outstanding Actions
KSG meeting 3	
d that the ne is suitable to e compensation n time to be in full breeding rior to turbines operational o all permissions lace).	



Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо	Outstanding Actions
Compensation Management a	and Maintenance						
Maintenance (paragraph 4 (e) of Compensation schedule)	The Norfolk Projects Proposals for Maintenance of the structures is provided in the draft KIMP.	Agreed at KSG meeting 3	Agreed at KSG meeting 3, subject to final comments to the KIMP	Agreed at KSG meeting 3	Agreed at KSG meeting 3	Agreed at KSG meeting 3	
Success Criteria & Adaptive M	lanagement and reporting						
Monitoring (paragraph 4 (f) of Compensation schedule – general Approach	The Norfolk Projects Proposals for Monitoring of the structures is provided in the draft KIMP.	 20.07.22 Could confirmation be provided that the monitoring will reflect, where needed, the latest JNCC seabird monitoring guidance. Natural England assumes that egg counting will be achieved through use of the nest hatches. However, could confirmation of this please be provided The key monitoring outputs are pairs and productivity. This will allow identification of any need for adaptive management and also track any debt/surplus. Whatever ongoing monitoring beyond the initial period needs to robustly inform these as an absolute minimum. The monitoring may be reduced in frequency however, it is our opinion that monitoring will be required for the lifetime of the project. Collaboration with other Offshore Wind Farm developers would be beneficial, especially with regard to monitoring of the regional population size. More generally, collaboration with other kittiwake monitoring efforts in the area would be efficient KSG meeting 3 – would it be a good idea to bring in a third party to help determine targets in relation to 		GYBC to defer to NE and RSPB on these points Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	GY to defer to NE and RSPB on these points Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	
		targets in relation to productivity.					





Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо	Outstanding Actions
		Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.					
Monitoring (paragraph 4 (f) of Compensation schedule – Ringing	Norfolk Projects agrees with NE suggestion to include ringing, which will also assist in identifying any movement of adults between colonies. Before embarking on this however consideration will need to be given to the level of resighting effort that would be required, as well as the welfare implications.	20.07.22 Natural England would advise consideration of colour ringing of adults as well as chicks breeding at the compensation site. This may give information on if the birds return to breed each year, a low proportion returning may give an indication of an issue at the colony. However, we note concerns regarding adult welfare and the need to consider if such monitoring would be practicable. Agreed at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP. ESC defer to NE and the RSPB on the specific details of the monitoring required as part of this compensation.	GYBC to defer to NE and RSPB Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	MMO to defer to NE and RSPB Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	
Details of how results will be reported (paragraph 4 (g) of Compensation schedule)	Norfolk Projects included an indicative timetable of reporting within the KIMP.	Agreed at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed a in principle t KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	
Details of how natal dispersal and colony interchange with the FFC kittiwake colony should be investigated (paragraph 4 (h) of Compensation schedule)	Further details of natal dispersal and colony interchange were provided following a meeting of expert ornithologists on the 14 th September 2022.	20.07.22 Natural England questions how it will be determined that the compensation has not secured an increase in the number of adult kittiwake available to recruit? As this will trigger the need for	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP. ESC defer to NE and the RSPB on the specific details of the monitoring required as part of this compensation.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	
Determination of appropriate range of productivity to be used as a measure of success	The plan is for this to be discussed and agreed at KSG 5 post KIMP submission. Aim is 180 fledged chicks/year, in at least 3 out of 5 years (but in context of performance of regional populations as this may indicate wider underlying causes).	adaptive management it is important that the principles and approach be agreed. We would suggest that a productivity approach could be developed alongside current proposals. Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP. ESC defer to NE and the RSPB on the specific details of this.	GYBC to defer to NE and RSPB Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	MMO to defer to NE and RSPB Agreed in principle at KSG 4 following further discussion and review of V3 of the KIMP.	Final agreement is to be determined at KSG5 (15 November 2022) and is no required for submission of the KIMP.





Торіс	Norfolk Projects	Natural England	East Suffolk Council	Great Yarmouth Borough Council	RSPB	ммо
Minutes approved (paragraph 4 (i) of Compensation schedule) SPR Steering Group Meeting	Final minutes circulated to KSG for: KSG meeting 1 KSG meeting 2 KSG Meeting 3 KSG Meeting 4	Minutes approved from KSG meeting 1 Minutes approved from KSG meeting 2 with one minor amendment. Minutes approved from KSG Meeting 3 KSG Meeting 4 minute approved via email (25/10/2022) with a minor amendment which was accepted)	Minutes approved from KSG meeting 1 Minutes approved from KSG meeting 2 Minutes approved from KSG Meeting 3 KSG Meeting 4 minute agreed via email (14/10/2022)	Minutes approved from KSG meeting 1 Minutes approved from KSG meeting 2 Minutes approved from KSG Meeting 3 KSG Meeting 4 minute agreed via email (26/10/2022)	Minutes approved from KSG meeting 1 Minutes approved from KSG meeting 2 Minutes approved from KSG Meeting 3 (with some minor amendments provided) KSG Meeting 4 minute agreed via email (14/10/2022)	Did not atte Minutes ap meeting 2 Minutes ap Meeting 3 KSG Meetin agreed via e (18/10/202
Agreement that any agreements reached on technical matters during the Norfolk Projects' Steering Group Meetings are also applicable to EA1N and EA2	Norfolk Projects agrees with this position	Agreed	Agreed in principle, however there may be matters in relation to delivery of additional kittiwake compensation for SPR projects which would require discussion with the LPA (such as if further planning consent is required).	Agreed	Agreed	Agreed
Agreement that from a stakeholder resource point of view, there is no need for SPR to conduct a separate round of Steering Group Meetings	Norfolk Projects agrees that there is no need for a separate round of Steering Group Meetings	Agreed	Agreed in principle, subject to the above point relating to the need to for any additional planning consent requirements to be discussed with the LPA.	Agreed	Agreed	Agreed



	Outstanding Actions
tend KSG2	
approved from KSG	
approved from KSG 3	
ting 4 minute a email 022)	





APPENDIX 4 EMAIL VALIDATION OF AGREEMENT LOG FROM KSG MEMBERS

68. Provided below are emails from steering group members confirming that the agreement logs contain a true reflection of their positions.

From:	
Sent: 24 October 2022 08:42	
To: Caitlin Lyng	
Cc:	
Subject: FW: Norfolk Projects KSG Meeting	4 document review

Dear Caitlin

Further to your recent e-mails, and discussions with my colleagues, I can confirm that on behalf of East Suffolk Council that

- 1. the Kittiwake Agreement Log is an accurate reflection of our position on all matters for which we wish to engage on.
- 2. that the Council has engaged and contributed to the KIMP, and following a careful review, the contents are agreed.

Many Thanks



Head of Planning and Coastal Management East Suffolk Council www.eastsuffolk.gov.uk

Our ambition is to deliver the best possible quality of life for everyone who lives in, works in and visits East Suffolk. We are East Suffolk

From: Sent: 25 October 2022 16:15 To: David Tarrant

Cc:

Subject: Natural England's email agreement with the KIMP and LBBGIMP

Dear All

Kittiwake Implementation & Monitoring Plan (KIMP)

Natural England has contributed to the KIMP and following review we agree its contents.

Kittiwake Agreement Log

Natural England met with Vattenfall on 18 October 2022 to finalise the wording of the agreements log. On the basis of the amendments agreed at that meeting, Natural England considers the Kittiwake Agreement Log is an accurate reflection of our position on all matters for which we wish to engage on.

Kind regards

Marine Lead Adviser - Major Casework Southern North Sea Natural England

Mobile:

From:	
То:	
Cc:	
Subject:	RE: RSPB email agreement with the LBBGSG Agreement Log
Date:	26 October 2022 11:54:41

Hi David,

Apologies for the delayed response.

The RSPB confirms that we have no further comments on the documents and:

1. That the Kittiwake Agreement Log is an accurate reflection of our position on all matters on which we wish to engage.

2. That we have contributed to the KIMP and following review we agree its contents.

All the best,

С	-	~		~	•	
Г	L	υ	I	I	I	•

Sent: 18 October 2022 15:54

To: Caitlin Lyng

Subject: RE: MMO email agreement with the KSG Agreement Log

This message was sent from an **e-mail domain unknown to Royal HaskoningDHV**. Please be cautious.

Good afternoon Caity,

I can confirm that the kittiwake agreement log is an accurate reflection of our position on all matter for which we wish to engage on and that we have contributed to the KIMP and following a review we agree to its contents.

Kind regards,

	arine Licensing Case Officer I vernment – Marine Management I Mobile:	Organisation.	I
Website Twitte	r <u>Facebook</u> <u>Linkedin</u> <u>Blog</u>	<u>Instagram</u> <u>Flickr</u> <u>YouTube</u> <u>Google+</u>	<u>Pinterest</u>
	Together we are Accountable, Innov Witter <u>Facebook</u> <u>LinkedIn</u> You		
Marine Management Organisation	ambitious for or seas and coasts		

Good Morning,

I can confirm that:

- 1. The Kittiwake Agreement is an accurate reflection of my position (at officer level, on behalf of Great Yarmouth Borough Council) on all matters that for which I wished to be engaged on,
- 2. I have contributed to the KIMP and following its review, agree with its contents.

Regards,

Principal Strategic Planner	
Strategic Planning	
Planning and Growth	
Great Yarmouth Borough Council	
Email:	
www.great-yarmouth.gov.uk	
Telephone:	
Mobile:	
f 🎔 🕨 in 🖸	
	ACHIEVEMEN
GREAT YARMOUTH	AWARDS 202
BOROUGH COUNCIL	COMMENDED
Uinkly Common	
Highly Commer	nded at The MJ Av





Highly Commended at The MJ Awards for Community Heroes Highly Commended at the LGC Awards for Most Improved Council and Council of the Year, and finalist for Public Health





APPENDIX 5 MINUTES FROM KITTIWAKE STEERING GROUP MEETINGS

- 69. Provided below are the minutes from:
 - KSG Meeting 1: 13th April 2022
 - KSG Meeting 2: 30th June 2022
 - KSG Meeting 3: 11th August 2022
 - KSG Meeting 4: 6th October 2022
- 70. This appendix contains minutes from KSG meetings 1 to 4. Minutes from the Expert group meeting on kittiwake productivity can be provided on request



Norfolk Projects Offshore Wind Farm Kittiwake Steering Group Meeting 1

Teams Meeting 13/04/2022

14:00 - 17:00 GMT

Attendees:

Name	Role	Company
James Mckie (JMc)	KSG Chairperson	Eurona Consultancy Ltd
Philip Ridley (PRi)	Advisory member (Head of Planning)	East Suffolk Council (ESC)
Graham Stuteley (GS)	Advisory member	ESC
Kathy Wood (KW)	Market Development, head of consenting	Vattenfall
Louise Bridges (LBr)	Interim Compensation Manager	Representing Vattenfall
Andrew Dodd (AD)	Advisory member	Royal Society for the Protection of Birds (RSPB)
Jamie Murphy (JMu)	Advisory member	RSPB
James Meyer (JMe)	Advisory member	ESC
Peter Ryalls (Pry)	Advisory member and Case officer for the Norfolk Projects	Marine Management Organisation
Kim Balls (KB)	Advisory member	Great Yarmouth Borough Council (GYBC)
Mark Trinder (MT)	Ornithologist Consultant	MacArthur Green
David Tarrant (DT)	Compensation lead and coordinator	Representing Vattenfall
Jon Allen (JA)	Onshore planning	Royal HaskoningDHV
Caitlin Lyng (CL)	Group secretariate	Royal HaskoningDHV

Apologies:

Louise Burton (Senior Responsible Officer - Natural England) (core member) Alan Gibson (Senior Responsible Officer - Natural England) (core member) Adrian Clarke (MMO) (Advisory member) Naomi Goold (East Suffolk Council) (advisory member)

Relevant Documents:

- 1. Norfolk Projects Kittiwake Steering Group Plan of works (draft 1) Confidential
- 2. Kittiwake structure concept design report
- 3. Kittiwake nesting on artificial structures: Success at Lowestoft, Tyne and Dunbar
- 4. Kittiwake Implementation and Monitoring Plan Skeleton Draft Confidential



No.	Description	Action
1	Introductions and Aims of the meeting:	
	JMc – Brief overview setting out the task which the secretary of state (SoS) has set the group.	
	ALL – Brief introductions	
	 DT – Run through of agenda Aim to reach agreement on the Plan of Works (PoW) and reach agreement on as many aspects of the Kittiwake Implementation and Monitoring Plan (KIMP) as possible to achieve overall aim of getting the document submitted to and signed off by the Secretary of State (SoS). 	
2	Background to why we have the requirements:	
	DT – Vanguard application submitted in 2018. Boreas application submitted in 2019. Together known as the Norfolk Projects (NPs).	
	 During consultation period there was a lack of agreement on whether adverse effect on integrity (AEoI) on the kittiwake population from Flamborough and Filey coast SPA could be ruled out. 	
	• Examining Authority (ExA) and Department for Business, Energy & Industrial Strategy (BEIS) pushed to provide an in principle derogation case (including making a case there are no alternatives and that the NPs are required as overriding public interest in terms of energy security).	
	 As a result, NPs need to provide compensation for Kittiwakes. The compensation case has been developed with extensive consultation with Natural England. 	
	MT – To note, AEol relates to cumulative project effects. NPs are not responsible for existing impacts on kittiwakes from windfarms, but it will add to background kittiwake mortality caused by wind farms. Kittiwake mortality estimated at 400, of which NPs will contribute 35. Compensation is required to offset 35 mortalities per year from the kittiwake population.	
	DT – Assessed 3 potential compensation options informed by studies conducted by Bob Furness:	
	Prey enhancement (beyond individual project control and authority);	
	 Predator control (not a pressure at the Flamborough and Filey Special Protection Area (FFC SPA)); and 	
	Artificial nesting structures (ANS) (enhance productivity of population).	
	From September 2020 NPs have focused on ANS.	
	For clarification, kittiwake compensation has been included in both DCOs:	
	Boreas = Schedule 19 part 1.	
	• Vanguard = Schedule 17 part 1.	
3	Aims of the group (<i>slide</i> 6):	
)DT – Boreas and vanguard aim to:	
	Reduce impacts on the FFC SPA as far as possible; and	
	 Implement compensation which has a net benefit to the natural environment. 	
	Vattenfall's environmental responsibility:	
	Commit to become climate neutral, to protect nature and biodiversity and to use	



No.	Description	Action
	resources sustainably.'	
	 Key aims of the KSG (found in Plan of Works (PoW)): Deliver kittiwake compensation in an effective and timely manner; Establish appropriate monitoring plan to ensure success of kittiwake compensation; and 	
	 Develop appropriate adaptive management measures DT – Any comments on these aims? 	
	DT – Subject to Group approval we would like to put the word 'appropriate' in front of 'deliver kittiwake compensation in an effective and timely manner.". KSG agreed this was appropriate.	DT to adjust wording
		in KSG key aims to include word 'seek'.
Diam of	Warka	
Plan of		
4 (slides 7 to 10)	 Review of key principles: DT – PoW needs to be approved by SoS before project can commence (January 2023) – tight time schedule. [<i>post meeting clarification</i>]. Therefore the PoW needs to be submitted to the SoS in May to allow three four months for approval and two months for any changes to be agreed if approval is not provided at first time of asking. On this timetable approval would be expecting early December and the project is due to commence in January 2023 therefore failing to submit in May could mean significant and costly delays to the project which is also delays to significant amounts of renewable energy production]. DT – Any comments on PoW principles? (<i>slide 8</i>). JMc – RSPB will be providing comments by 27th April 2022. DT will circulate their comments to the rest of the Group for review. Comments must be approved or rejected by 4th May 2022, with anticipation of submitting agreed PoW to SoS by 13th May. No comments from Group. 	All members should make best endeavours to reserve resource to meet these dates.
	 DT – Outlined members of PoW. Once location of compensation is decided the relevant planning authority will be elevated to core members. DEFRA and the Broads authority declined invitation to this Steering Group. 	
5	Comments received on the PoW and updates required: DT – ESC and GY were the only members to provide comments on the draft PoW. DT- ran through a brief review of these comments to get group approval on the changes. No issues were raised by the group during the discussions. DT – The revised version will be sent to members after the meeting (subsequently sent on the 14 th April). The NPs recommend that the Group incorporates most of these comments.	



No.	Description	Action
	 DT - Point 8 (pg.2 PoW) To note that the NPs do not intend to exclude possible future compensation opportunities by working in collaboration with other projects. It was included to make sure that the scope of the group focussed on the compensation which has been set out in the compensation schedules and was not widened to include strategic measures which are more appropriately dealt with at government level such as fisheries management. 	
	 DT - Point 20 (pg.4 PoW) The relevant local planning authority would be elevated to core members once location of the ANS has been decided. However, two possible locations are within the Broads Authority and the Broads have declined the invitation to join this Group, therefore the NPs can't make a full commitment to this. Should the ANS location be located in an area within the Broads Authority, we would make strenuous efforts to encourage them to join this Group. 	
	KB – Did the Broads Authority provide a reason why they declined the invitation to join this Group?	NP to supply
	 DT – They were not able to provide resource. The NPs team has had engagements with them, and we will continue to update them in regard to planning applications. DT – Point 45 (pg.7 PoW) ESC suggest some matters may need to be 'taken away' to committee for authorisation, therefore, the NPs request such matters be raised as early 	NP to supply members with updated PoW draft for further comments. Broads Authority will be provided with a copy of the agreed minutes and the Norfolk Projects will
		maintain contact with them to keep them updated on progress.
	DT – As aforementioned, RSPB will be providing new comments on PoW, which will be taken into consideration by the Group, in order to sign off and submit PoW to SoS by 13 th May.	
	The group agreed to approve/review all of the proposed change, with the caveat from the RSPB that they would conduct a more thorough review by the 27 th April.	DT to circulate RSPB PoW
	JMc – Group members to get in touch with any additional comments on the PoW by the agreed deadline of 27 th April.	comments and the group needs to review and respond to RSPB's
How to	The Group generally expressed a preference to hold LBBG and KSG meetings on the same day or as close as possible, to help with resourcing but agreed that they would keep an open mind on alternatives. discharge the Kittiwake Implementation and Monitoring Plan (KIMP)	comments 4 th May.
6 (slides	Proposed location where the compensation measures will be delivered and their suitability: LBr – Have 3 possible onshore locations	



No.	Description	Action
13 to 16)	 Lowestoft Outer Harbour Herbert Barnes park, Gt Yarmouth Bure park, Gt Yarmouth 	
	Offshore platform is a consideration but is at a less advanced stage than the onshore options.	
	AD – confirmed that offshore platforms present a lot of challenges that an onshore would not, such as access etc.	
	 North Pier at Lowestoft Outer Harbour is NPs preferred location. Known kittiwake colonies in the vicinity Close to foraging grounds for breeding adults. Easily mitigated against predators. Easily monitored/maintained. 	
	AD – There was previously a harbour wall kittiwake structure present at the Port of Lowestoft. Where is that in relation to this proposed location?	
	DT – The original harbour wall kittiwake structure is at the end of the Pier and our new ANS would be located nearby just to the north of it (used slides to illustrate location).	
	AD – ABP have plans to restore the original harbour wall kittiwake structure. Is this separate from your ANS?	
	MT/LBr – Yes.	
	DT – Members to note that there is a large existing wall structure (c. 4m high) that will screen the ANS from other port activities and minimise any landscape and visual impact from the town.	
	dovelopment. The proferred location quited evenuence to a large extent	DT to make sure cumulative impact is
	PRi – Raised concern over wider community impact of offshore windfarms requiring compensation, and that there must be careful consideration regarding how kittiwake compensation may affect Lowestoft community.	considered in planning application
	JMc – Certainly something that needs to be taken into consideration.	
	GS – The KIMP states there is an option for additional capacity, is the additional capacity regarding modular design involving other projects?	
	DT – Whilst we look to work collaboratively wherever possible, the primary focus is providing compensation for our projects. Providing additional capacity would mean confirming whether it would be desirable to have a kittiwake colony of a certain size, and agreeing with Steering Group members from other projects the number of additional nests to provide.	
	PRi – Understand you have to look at it as a single project, but from previous experience, if it's not done as part of wider set of projects this might be a problem in terms of consenting (Planning Consent).	
	JMc – This topic may need additional discussion.	
	PRi – A letter has been produced regarding Hornsea Project 4 consultation [letter was circulated by PRi during the meeting].	
	JMu – We are setting up the Lowestoft Kittiwake Partnership which will improve community understand of kittiwakes.	DT to engage with JMu over community
	M I – Important to note that any disturbance and huisance due to kittiwakes is of a	understanding and opportunities for outreach activities.



No.	Description	Action
	colony will not add to the existing birds which nest in the town and will offer an alternative location for new breeding birds to settle away from the town (established breeding birds tend to reuse the same nest site across years). Thus the compensation won't increase the nuisance in Lowestoft town and may help to reduce it. Also important to note that kittiwakes are only present at their breeding sites between late February / March and August.	
	JMe – Kittiwakes can be perceived as a nuisance if they nest on window ledges on housing and buildings.	
	MT – Agreed. When kittiwakes nest above building and pavements there can be some localised mess. However, we are confident that the kittiwakes on the ANS location will not go into town and won't contribute to current kittiwake mess in Lowestoft.	
7 (slides 17 to 21	Design of the artificial nest structures: DT – Numbers are still being confirmed and we are making allowance for numbers relating to SPR, but for now the NPs is working on providing compensation for 360 kittiwakes. This is the number the SoS has agreed to as part of the NPS consents and so cannot be debated at this stage.	
	AD – Understood but would like to point out that simple multiplier ratios are overly simplistic.	
	DT – We recognise that this may not be the number the RSPB might propose. But these numbers have been agreed as part of the examination with Natural England and included in the SoS Appropriate Assessment and decision and therefore these are the numbers we need to work with.	
	DT – Concept designs for two types of structure (wall structure and tower structure) have been based on existing successful structures at Lowestoft harbour and on Tyneside. While the original harbour wall kittiwake structure was successful initially, this is no longer used, due to limited protection from predation. The lessons from this, among other aspects, have been incorporated into our designs.	
	PRi – Does there need to be consistency in the visuality of free-standing structures? For example, the Ørsted structure has been built to look like seaside beach architecture.	
	is industrial in nature. Also, the main driver benind our design is experience from previous successful structures and the results of the nesting study.	DT to clarify with designers whether the access platform
		is permanent.
	DT – Unsure if it is permanent, will clarify this with designers and adapt the design to mitigate any issues.	
	DT – A nesting study was undertaken to better inform ANS design.	
8 (slides 22 to 24	Nesting study survey: MT – Prof. Bob Furness undertook a survey of kittiwake breeding on artificial structures in 2021 at Dunbar, Tyneside and Lowestoft. Results suggested ledges should be no wider than 15cm, there was a preference for sites protected by overhangs and also with shelter from direct sun, rain and wind.	
	KB – Photo of kittiwake tower structure on slide 23 is taller than what you have proposed. Why will your ANS be smaller than this?	
	MT – We don't want the ANS be higher than the wall it will be placed behind.	
	KB – Would this low height be suitable in any of your proposed locations?	
	MT – If the ANS was located in Herbert Barns Park, it would probably be slightly taller. The height depends on factors such as proximity to footpaths.	



No.	Description	Action
	MT – Want to minimise the edge ratio of the ANS as kittiwake breeding success was found to be higher for central nests.	
	JMu – Interesting study. Agree that proximity to existing colonies will be imperative to success and would express a strong preference for Lowestoft Outer Harbour location.	
	MT – Agree as this is our preferred location. Choosing other locations would require providing a lot of incentives for the kittiwakes to nest there.	
9 (slides 25 and	Detailed design wall structure: DT – We have adapted the ANS design based on this study, and we will also take onboard comments received from this meeting.	
26)	GS – Are ledges all the same width, or are they wider at the top to protect lower kittiwakes from mess from above?	
		DT to discuss with
	ledges stick out further, minimising the mess made on birds nesting on lower ledges.	designers how to prevent mess falling on lower ledges and how to protect access frame from being nested on.
	AD – Is there a risk of lower ledges not being used or birds colliding into the	
	MT/DT – To consider this and adapt the designs appropriately.	
	MT – The wall structure may not be one long wall, may be 3 smaller walls for example. These walls may also be angled slightly so that the kittiwakes aren't nesting in direct sunlight.	
	JMe – What is to stop birds nesting on the nest access frame structure?	
	DT – this is not necessarily kept on site but will look into this further.	
	No further comments on wall design.	
10 (slides 27 and 28)	Detailed design tower structure: DT – In terms of comparison with Ørsted design, the main driver for our design has been the success of existing structures and the findings of Bob Furness's study. The basis of the Ørsted designs has primarily been from a landscape and visual perspective due to the locations they are proposing such as Hartlepool, which is near to publicly accessible land, unlike the outer port area. Our designs are driven by the success of previous structures and the location and nature of the potential sites.	
	JMu – If structures were in a publicly visible area, having something visually attractive would improve public perspective, however the preferred location of this ANS behind a wall makes this a less important consideration compared to structures that are more visible.	
	MT- Ørsted designs may even be out of character in our industrial location.	
	AD – Agree, the Ørsted designs were context specific.	
	KB – The Tyneside structures are a lot taller than the designs presented.	
	MT- the final height would be dependent on specific location its immediate environment.	
	GS – Will there be a pull of recruits and an increase in kittiwake population at Lowestoft due to multiple structures?	
	MT – Can't comment on this as we don't know the details of what is being proposed by others at Lowestoft, so we don't know how many more nests there will be.	

KSG Consultation report

November 2022



No.	Description	Action
11 (slides 30 to 31	Implementation timetable for delivery of compensation: DT – Measures need to be in place 4 breeding seasons before turbines start turning in 2027. Installation of kittiwake ANS will hopefully completed by end of 2022/January 2023 to ensure commission of structure in early February 2023, March 2023 at the latest.	
	JMc – Tight schedule but necessary, are there any concerns (Q6. in presentation)?	
	No comments were received.	
	JMu – On the procurement and fabrication of the structure, will you use local companies?	
	possible to maximize local content.	DT to discuss procurement from
	JMu – Within the Kittiwake Partnership Group we have we have a business improvement group who have some contacts and could possibly help you with procurement.	business improvement group of Kittiwake Partnership and DT to get in touch with
	DT – We will take this back to internal meetings (internal procurement) and offer this help.	
12 (slides	Landowner discussions: LBr – Provided an update on landowner discussions.	
33 and 34)	LBr – There is an important challenge around the decommissioning of the project and ANS. Vattenfall is currently looking at 35-year lease framework with landowners. Are there any suggested solutions on agreeing a lease with a landowner when there is no defined end point? One option is to commit, a point in time for example 30 years into the lease, to re assess and then either negotiate a longer lease with landowner to extend lease or investigate new area to place ANS, once the lease has expired.	
	JMc – This is something to revisit. If there are no alternatives, then we will stick with this proposal unless notified within the timescales set elsewhere in the minutes.	
	GS – Assuming the ANS is decommissioned, will the occupants of the nests, migrate into Lowestoft?	
	MT – Difficult situation as we would want to avoid decommissioning something that is in use. There should be some means of a change in ownership/responsibility.	
	DT – It is difficult to know what landscape will look like in 30 years' time, therefore a commitment to revisit the lease after a certain time period seems logical.	
	JMc – From my own experience, including a commitment to revisit this is how I would view it going ahead, but this would be up to the Regulator to accept this. This is a logical approach in the absence of anything else.	
	JMu – We would need to see how successful the structures are.	
	JMe – Who would enforce against the structures being taken down by the landowner once the lease is up, even if the ANS are being used?	
	DT – The SoS is responsible overall.	
	AD – BEIS may need to think about what legal protection this site is given, as I am unsure what powers the SoS has if the site changes hands and the new landowner decides to decommission the structure.	
	PRi- if the structure were in the port, it would be the responsibility of ESC	
	DT – If site were to change hands within a 35-year lease, I would assume the conditions of the lease would need to be adopted by the new landowner and	



No.	Description	Action
	therefore the structures should be secured until the 35-year lease expires.	
13 (slide 35)	Maintenance schedule: MT – Are there any additional maintenance measures to take into consideration, in addition to the ones outlined here and to be detailed in the KIMP?	
	JMe – ANS is seaward facing so I assume construction will take into account the effects on the marine environment?	
	MT – The ANS may not necessarily be seaward facing. The back wall may be facing the sea to minimise direct sunlight, but it may still be exposed to salt spray. Monitoring and Management:	
14 (slides	MT – Brief outline of monitoring measures.	
36 and 37)	GS – Is there an opportunity for live cameras to be installed?	NPs to discuss internally the option
	MT – That is definitely something that could be considered and would have great community benefits. Would need to figure out how to go about this.	of having live cameras on the
	JMu – Agree as this is a good opportunity for education. Also, is it worth monitoring the entire kittiwake population in Lowestoft in collaboration with other developers? Birds relocating from less favourable locations to these structures could artificially increase population (relocation rather than increase in pop).	ANS.
	MT – Agree it would be sensible to do this collaboratively. This is something for the NPs to consider. But as noted elsewhere, established breeding birds rarely relocate to different sites, so we expect most growth on the ANS to be due to new breeding birds choosing to settle here rather than in the town.	
	AD – Would like to note that health and safety would likely get in the way of monitoring if the ANS were located offshore.	
	MT/DT – Agree. This is one of main reasons why the offshore option is least preferred.	
15 (slide 38)	Natal dispersal and colony interchange: MT – The 50,000 kittiwake pairs at nearby FCC SPA aren't easily accessible, so would be difficult identifying if this is a recruitment location for birds hatched on our ANS.	
	JMu – having the opportunity to do some research would be beneficial for our understanding of birds at Lowestoft, particularly in terms of GPS tagging.	
	MT – I have had preliminary conversations with a researcher who might be looking at kittiwake natal dispersal and colony interchange at Lowestoft as a long-term study.	
16 (slide 39)	Success and adaptive management: MT – We need to provide replacement success for birds at risk of collision, but FCC SPA population is 50,000 pairs so identifying 35 new recruits from new colony is not feasible. Instead, a proxy will be used in terms of the new colony's size and productivity.	
	If the ANS isn't successful this will trigger extra efforts, for instance using supplementary feeding. We may also need to look at other locations that may be more successful.	
	DT – Can members identify any other measures of success, target setting or adaptation to be considered (Q10 on slides)?	
	KB – At what point could Yarmouth be engaged in this process? If the ANS needs to be moved to a location under the Yarmouth authority, Yarmouth will need to be engaged and there is a risk of delaying the project. What can I do to support this as much as possible?	
	DT – We would ideally like to progress the adaptive management options although they aren't the preferred option. Whilst you cant speak on behalf of Broads, would you anticipate that a screening opinion request would need to be submitted with the	



No.	Description	Action
	intention of a planning application being submitted fairly soon after that, or could it be submitted with intent of submitting something further down the line?	
	KB – I can't comment on behalf of the Broads, which is why this engagement needs to happen.	
	LBr – At our introductory meeting with the Broads they expressed some positivity about the ANS.	
	DT - Our intention is to re-engage with The Broads Authority and highlight our intention to possibly submit screening request to them.	
	JMc – KB would you be able to in any contact with the Broads let them know what is happening and the need for them to be aware please.	
	KB- Noted the request on screen.	
	KSG agreed that this is a sensible option	
17 (slid	Reporting: ^e DT – Annual reporting to SoS would include (in final KIMP)	
30)	Survey	
	Success criteria	
	Adaptive management measures etc.	
	All of this has been included in skeleton KIMP.	
18	Conclusions, actions and next meeting:	
	JMc – Members should feel free to voice any other concerns with the KIM following	
	this meeting but be mindful of the deadlines please.	
19	Any other business:	
	No comments.	



Norfolk Projects Offshore Wind Farm Kittiwake Steering Group Meeting 2

Teams Meeting 30/06/2022 10:00 – 13:00 GMT

Attendees:

Name	Role	Company
James Mckie (JMc)	KSG Chairperson	Eurona Consultancy Ltd
Andrew Dodd (AD)	Advisory member	RSPB
James Murphy (JMu)	Advisory member	RSPB
James Meyer (JMe)	Advisory member	East Suffolk Council
Graham Stuteley (GS)	Advisory member	East Suffolk Council
Kim Balls (KB)	Advisory member	Great Yarmouth Borough Council
Louise Burton (LBu)	Advisory member and Senior Responsible Officer	Natural England
Martin Kerby (MK)	Advisory member	Natural England
Kathy Wood (KW)	Head of Consenting	Vattenfall
Jake Laws (JL)	Senior Consents Manager	Vattenfall
Louise Bridges (LBr)	Compensation Lead	Representing Vattenfall
Dave Tarrant (DT)	Compensation lead and coordinator	Representing Vattenfall
Jon Allen (JA)	Onshore planning	Royal HaskoningDHV
Ross Bower (RB)	Ornithologist Consultant	Royal HaskoningDHV
Caitlin Lyng (CL)	Group secretariate	Royal HaskoningDHV

Apologies:

Mark Trinder (MT) – MacArthur Green Alan Gibson (AG) – Natural England Adrian Clarke (AC) – Marine Management Organisation Peter Ryalls (PRy) – Marine Management Organisation Philip Ridley (PRi) – East Suffolk Council Naomi Goold (NG) – East Suffolk Council

Relevant Documents:

- 1. Final minutes from KSG Meeting 1
- 2. Kittiwake Structure detailed design report
- 3. Updated KIMP
- 4. Action Tracker
- 5. Agreement log



	cription	Action
Intro	ductions and Aims of the Meeting	
Introd	luctions from members who were not present at Kittiwake SG Meeting 1.	
on a princi If no no ob	Reminded the meeting that: During discussions should no objections be raised proposal, suggestion, or position then JMc will assume there is agreement in ple unless notified otherwise within the set timescales identified in the minutes. post meeting comments are received within the timescales then we will assume jections and proceed Provided an overview of the aims of the meeting, which is follows:	
-	Sign off Minutes from KSG meeting 1	
-		
-	To reach agreement on proposed locations	
-	To reach agreement on the principles of the maintenance schedule	
-	To make progress on agreement of monitoring and management proposal	
-	To make progress on agreement of success criteria and adaptive measures	
the m	The minutes from Kittiwake SG Meeting 1 will be accepted as a true record of teeting. Members were thanked for their cooperation between meetings which ed the Secretariat to meet their deadlines.	
	borated into the KIMP and published.	
LBr:	A site at the Port of Great Yarmouth has been introduced as a second	
option The s pursu applio a viat	rred site, in addition to the preferred site at Lowestoft Outer Harbour, which communicated to Kittiwake SG members via email. The Offshore Platform in continues to be considered. Sites at the Port of Great Yarmouth and Lowestoft Outer Harbour are being ued with equal merit as viable solutions. This is necessary as planning cations must be successful and commercial agreements secured before ensure one final site. The distinction between the two sites is the presence of an ing kittiwake colony at Lowestoft and no existing colony at the Port of Great	
option The s pursu applic a vial existi Yarm MK : I Harbo there	rred site, in addition to the preferred site at Lowestoft Outer Harbour, which communicated to Kittiwake SG members via email. The Offshore Platform in continues to be considered. Sites at the Port of Great Yarmouth and Lowestoft Outer Harbour are being ued with equal merit as viable solutions. This is necessary as planning cations must be successful and commercial agreements secured before ensure one final site. The distinction between the two sites is the presence of an ing kittiwake colony at Lowestoft and no existing colony at the Port of Great	
option The s pursu applic a vial existi Yarm MK : I Harbo there need JMu : impor	rred site, in addition to the preferred site at Lowestoft Outer Harbour, which communicated to Kittiwake SG members via email. The Offshore Platform in continues to be considered. Sites at the Port of Great Yarmouth and Lowestoft Outer Harbour are being ued with equal merit as viable solutions. This is necessary as planning cations must be successful and commercial agreements secured before ensure ble final site. The distinction between the two sites is the presence of an ng kittiwake colony at Lowestoft and no existing colony at the Port of Great outh NE expressed a strong ecological preference in favour of Lowestoft Outer bur. There is no history of kittiwakes nesting at the Port of Great Yarmouth, fore, luring them to this location is likely to be a challenge. NE understands the	
option The s pursu applid a vial existi Yarm MK : I Harbo there need JMu : impol areas poter LBr : immin Ackno Yarm	 rred site, in addition to the preferred site at Lowestoft Outer Harbour, which communicated to Kittiwake SG members via email. The Offshore Platform in continues to be considered. Sites at the Port of Great Yarmouth and Lowestoft Outer Harbour are being red with equal merit as viable solutions. This is necessary as planning cations must be successful and commercial agreements secured before ensure be final site. The distinction between the two sites is the presence of an ing kittiwake colony at Lowestoft and no existing colony at the Port of Great Yarmouth, south NE expressed a strong ecological preference in favour of Lowestoft Outer bour. There is no history of kittiwakes nesting at the Port of Great Yarmouth, fore, luring them to this location is likely to be a challenge. NE understands the to have a backup site. Seconded NE's ecological preference for Lowestoft Outer Harbour. Raised the tance of considering societal impacts, as the presence of kittiwakes in urban is needed of the 	
option The s pursu applid a viate existi Yarm MK : I Harbo there need JM u: impol areas poter LBr : immin Ackno Yarm feasite Bure	rred site, in addition to the preferred site at Lowestoft Outer Harbour, which communicated to Kittiwake SG members via email. The Offshore Platform in continues to be considered. Sites at the Port of Great Yarmouth and Lowestoft Outer Harbour are being ued with equal merit as viable solutions. This is necessary as planning cations must be successful and commercial agreements secured before ensure ole final site. The distinction between the two sites is the presence of an ing kittiwake colony at Lowestoft and no existing colony at the Port of Great outh NE expressed a strong ecological preference in favour of Lowestoft Outer our. There is no history of kittiwakes nesting at the Port of Great Yarmouth, fore, luring them to this location is likely to be a challenge. NE understands the to have a backup site. Seconded NE's ecological preference for Lowestoft Outer Harbour. Raised the tance of considering societal impacts, as the presence of kittiwakes in urban a can bring with it social challenges. Due consideration is needed of the tial societal impacts of introducing kittiwakes to Great Yarmouth. A planning application for Lowestoft Outer Harbour will be submitted nently, comprising either a wall or tower structure. Develoged the difficulty in attracting breeding birds to the Port of Great outh, however, attracting kittiwakes to this coastal location is considered more ole than attracting kittiwakes to an inland site (such as Herbert Barnes Park or	



No.	Description	Action
	would be situated is not publicly accessible.	
	LBu : NE has been consulted on another planning application at the Port of Great Yarmouth – an Operations and Maintenance Campus - which includes the construction of a car park near to the kittiwake compensation site.	
	KB : Planning application for an Operational & Maintenance Campus, including site infrastructure works has been submitted to the Council. Expected to be gain planning consent and commence construction in Autumn 2022, therefore, there must be consideration of the impacts if construction for both projects was to take place at the same time.	
	JMe: Queried what will dictate the final choice of a single preferred site.	
	JL: Neither the Port of Great Yarmouth nor Lowestoft Outer Harbour can be chosen as the preferred site until planning permission and a lease has been agreed. Lowestoft Outer Harbour is more ecologically desirable, however, this does not mean the Port of Great Yarmouth can be ruled out. Negotiations with both Port owners are ongoing, and the final decision will be influenced by ecology, the results of these negotiations and planning permissions.	
	AD : Ørsted's Hornsea 3 planning application for a site at Hartlepool has recently been refused. Investigations are ongoing as to the reason it was refused, but it is known there were many objections from local residents. Highlights the importance of the Lowestoft Kittiwake Partnership in managing public relations	MK/LBu to consider
	that went into BEIS to sign off as compensation. NE needs time to consider whether this is an ecologically suitable location.	the ecological suitability of the Port of Great Yarmouth and provide
		feedback
	JL: Progress is being made and confidence is good, but nothing is guaranteed and is also dependent on successful planning. Reiterated the importance of having another option that was being pursued, given the tight timeframe of delivering the project.	
	details of the Campus.	KB to feedback more detailed plans on the Operations and Maintenance
		Campus to DT/JL
	KB : Planning consents usually have a standard lifetime of 3 years.	
	DT : Should Lowestoft be picked as the preferred site, but fail within 3 years, then one of the additional sites in Great Yarmouth would potentially be chosen as an alternative site for adaptive management. Any updates to information previously gathered and assessments that need to be performed are anticipated to be done fairly quickly. Acknowledged the difficulty in reaching agreement on preferred options but stressed the importance of reaching agreement on the sufficient quantity of location options.	
	Once the preferred site has been chosen, all other locations will be considered as adaptive management options.	
	KB : Queried whether there were other potential sites at Lowestoft that have been given consideration, given the ecological preference for Lowestoft.	
	MK : Supported the idea of further exploration of sites at Lowestoft. The Port of Great Yarmouth is sub-optimal, as are Great Yarmouth inland options, given their distance from the coast. NE would advise that an Offshore Platform could provide flexibility and be sited with the vicinity of existing kittiwake colonies, therefore, it could be	



No.	Description	Action
	ranked as more preferable to inland options.	
	GS : The alignment of the site at the Port of Great Yarmouth means the wall or tower structure would be visible from the town. At Lowestoft Outer Harbour, visual impacts are minimal due to the visual shielding provided by the 4m high outer harbour wall, which would hide the wall or tower structure from view. Other project experience suggests there has been difficulty finding suitable alternative site options within the town of Lowestoft.	
	Siles available at Lowestoit.	DT to provide NE with a report on
	adverse weather. As such, this offshore option is lower on the priority list. Kittiwakes nesting inland at Tyneside suggests that the inland nature of locations at	offshore option by the third Kittiwake Steering Group Meeting
	MK: Clarified that a near-shore, not offshore, location could be explored.	
	KB : Noted there has been difficulty with engaging with the Broad Authority and visual impacts will likely be significant at inland sites in the Broads Area of Great Yarmouth i.e Herbert Barnes Park or Bure Park, therefore, there must be careful consideration of the practicality of pursuing these options.	
	JL : Recognised the need to consider alternative options, such as the Offshore Platform, however, in terms of deliverability and timeframes, the offshore option would be difficult to deliver within the current project programme.	DT to produce a pros and cons matrix of each compensation
	GS : A near-shore option would still require terrestrial planning considerations, which can cause problems for projects in near-shore areas, due to the sensitivity of some sites.	location option
	JMc : Norfolk Projects will consider this information and feature this into any decision moving forward.	
3	Detailed design of the artificial nest structures	
	DT : Summarised the main points of the design of the artificial wall structure, which has been adjusted following comments raised at the first Kittiwake Steering Group Meeting. One design modification has been tapering the width of the ledges to prevent mess on birds nesting lower down the structure.	DT to enquire with
	GS : Queried whether there is scope to lower the structures into the foundations to reduce the height of the structures, as the proposed wall height of 4.73m now	designers about the possibility of sinking the wall structure
	DT : Acknowledged the height difference. Lowering the structure would depend on the integrity of the existing concrete slab; currently awaiting results from the site investigation to obtain information on the concrete slab. There would be merit in receiving a steer from GS as to whether the proposed height of the wall would be substantial or not. Acknowledged the preference for a wall structure at Lowestoft Outer Harbour.	
	JMu : If the perimeter fence for predator exclusion is the same height as the bottom ledge, there is a risk of the fence being an obstruction in the flight path of kittiwakes. A mesh overhang also introduces the risk of kittiwakes and chicks getting caught in	DT to enquire with designers whether overhang can be



No.	Description	Action
	the fence. Flagged importance of considering the height of the predator fence and materials used.	made from solid material
	DT : Possibility of making the fence overhang a solid structure in order to prevent entanglement.	
	MK : Flagged whether the narrowing of shelves to 10cm will reduce the likelihood of kittiwake nesting success.	
	DT : Nesting suitability study concluded that kittiwakes could nest on ledges 10cm deep.	
	JMu : Kittiwakes will nest on very narrow ledges, therefore, can't see any issues arising from ledge depth.	
	MK : Raised concerns over the amount of compensation being provided. NE advice during examination and predetermination phase was based on what was contained in submission for in-principle compensation plans. These included 600 nests for Norfolk Vanguard and 200-300 nests for Norfolk Boreas. NE is not comfortable with the provision of 432 nests. Flagged there also needs to be consideration of requirements for East Anglia 1 North and 2. Acknowledged that the designs look promising, and NE will continue to advise on design structure. NE maintains the position that more is needed and would advise on building big now, rather than potentially extending later.	
	KB : Queried why the wall structure has not been designed to support the number of nests expected by NE.	
	taken as a starting point for this project	JL to provide NE with documentation
	AD . I lagged that there were tables within the in philoipal document that seemed to	on compensation numbers
	figures and requested Vattenfall provide documentation on compensation numbers.	DT to have internal discussion regarding compensation
	JMc: Flagged that the number of nests is a key aspect that needs to be clarified.	figures
	DT : Summarised the main points of the design of the artificial tower structure.	
	different weather conditions, and how consideration must be given to the possibility of structure replacement as well as repairs	DT to discuss with designers the design life of various
	it is more likely a single cabinet would need replacing rather than the entire	elements of the structure and feedback to group
	MK : Raised concern over large central bar and how this could potentially be used by gulls to predate on kittiwakes, as this is an emerging issue in Newcastle. Queried whether the design could be adjusted to minimize opportunity for aerial predation.	
	JMe : Queried whether gulls could nest on the top of the tower structure and how a decision will be made on choosing between a wall or tower design.	
	closest to the central bar. 2 of the 3 tower sides will be optimal for kittiwakes,	DT to discuss with designers the predation issue



No.	Description	Action
	kittiwakes nesting on the sub-optimal (south facing) third side. Flagged that at a	created by the central bar
	MK : Raised concern that creating a design focused on minimizing predation risk and reducing the possibility of mess dropping onto kittiwakes on lower ledges will lower	
	instead of 200-100mm. This would make the central ledge narrower so as not to introduce opportunity for gull predation. Raised concern that the structure may be less suitable for kittiwakes if there is a high presence of gulls showing interest	JMu to share information on ledge grading. DT to take this back to designers
	JMc : There is in principle agreement for the wall structure, subject to further discussion as noted. No agreement was reached on the tower structure as this is subject to further discussion.	
	DT : Do you agree that on balance a wall structure at the Lowestoft Outer Harbour location would be optimal? The meeting was in agreement in principle.	
	JMu : Both structures have been designed with due consideration of requirements and have the potential to work. Voiced agreement of the wall structure being the preferred option, although the tower structure still has merit.	
	MK : Queried whether there is an option to have a variety of structures (EG two wall structures and one tower structure).	
	DT : This has been given consideration, but in the Lowestoft Outer Harbour location this would result in one structure being more visible than the other.	
4	Proposed site layouts	
	DT : At Lowestoft, wall structures would be oriented to face the northern side. Noted that consideration would be given to JMu's previous comment regarding the risk of entanglement on mesh, therefore, the design would look to create an overhang from solid material.	
	JMu : Raised concern over the presence of barbed wire on the fence, which creates a risk of injury to kittiwakes. Queried what the exact distance is between the wall structures.	DT to confirm exact distance between structures and feedback to group
	DT : Distance between structures is approximately 3.5m.	reeuback to group
	maneuverability. Nest spaces may start to feel suboptimal. Queried whether the gap could be widened but noted the difficulty in doing this as the presence of a fence further restricts space availability.	MK to provide opinion from NE ecologists regarding the spacing between the structures
	DT : There has been a compromise between wall orientation and nest availability. Based on the results from the MacArthur Green report, orientation has been	DT to provide NE
	GS : Queried whether measures can be taken to prevent gulls congregating on the	with information supporting the decision to choose 3.5m spacing
	DT : Acknowledged this is something that has not yet been considered.	
	of SPR undertaking compensation measures in the same space. However, there may not be the physical capacity to support SPR at this site, particularly if larger	DT to consider measures to prevent gulls congregating on the harbour wall
	DT : The compensation numbers for this project and the design of the wall and tower	



No.	Description	Action
	structures have incorporated the number of nests required by SPR.	
	 JMc: Subject to further comments and discussions there is in principle agreement of either a wall or tower structure being used at the Port of Great Yarmouth. MT: Feedback from NE ecologists regarding the spacing between structures may change NE's preference for either a wall or tower structure. NE will reserve advice on this, subject to further discussions with NE ecologists. Suggested creating a 3D visualization of structures and surrounding buildings. 	DT to consider creating a 3D visualisation of structures and surrounding buildings
5	Recap Implementation Timetable for delivery of compensation	
5	DT : Provided an overview of the Implementation Timetable and reiterated there is still time to make changes to the designs of the structures. Updates on structure procurements will take place at the third Kittiwake Steering Group Meeting.	
	JMc: No comments, therefore, the Implementation Timetable will be taken as read.	
	Break (15 mins)	
6	Maintenance schedule	
	DT : Highlighted importance of agreeing on a maintenance routine.	
	GS : Queried the dates associated with the breeding season, as was previously referred to as beginning in February but is now between March-August	
	DT : The official breeding season is March-August, but there is evidence of birds starting to nest at Lowestoft in late February.	
	JMu : In 2022, birds at Lowestoft started arriving from mid-February, therefore, it would be ideal for works to be completed by mid-February.	
	JL : Acknowledges that the structures will be in place as soon as possible but highlights that the requirement stipulates March 1 st –September.	
	MK : Pointed out that there may still be value in the structures even if works finish after 1 st March, as ledges in Lowestoft that were erected in May were found to have been colonized by kittiwakes.	
	JMu : Acknowledged this was the case, although the nesting sites that had previously been favoured by the birds had been netted off. Productivity on these ledges was not measured, but there may have been between 15-20 nests during the first breeding season, with more in 2022. Highlights importance of productivity monitoring across whole of Lowestoft.	
7	Monitoring and Management	
ľ	LBr: Provided an overview of monitoring for year 1 and years 1-3.	
	JMu : Highlighted it would be positive to see genuine effort being made to coordinate monitoring with other developers, which allow monitoring of the whole of Lowestoft to determine whether the birds were moving around. The only way to understand the success of schemes is to have a high-quality collaborative monitoring effort across different developers, which minimises disturbance to kittiwakes and eliminates any confusion associated with the success of schemes.	
	LBr : High level discussions are ongoing between this project and other developers with a focus on aligning monitoring efforts.	
	GS : Queried whether monitoring would include the measure of bird recruitment back into the Flamborough Special Protection Area (SPA).	LBr to confirm whether monitoring includes the
	LBr: This will need to be confirmed.	measure of bird recruitment back into
	MK: Queried the plan for monitoring beyond year 3.	the SPA



No.	Description	Action
	initial monitoring efforts.	DT to provide NE with a preliminary outline of monitoring
	AD : Stipulated that the KIMP should include reference to monitoring that will go beyond year 3. In regard to monitoring bird recruitment back into the Flamborough SPA, discussions have shown this is challenging as the SPA is not an easy place to monitor.	efforts post year 3
	MK : NE have accepted with other developers that colour ringing of chicks is the best method for monitoring recruitment, but any information collected at Flamborough will be anecdotal.	
	RB : Provided an overview of natal dispersal and colony interchange. Highlights that the draft KIMP did not include a proposal to undertake specific recruitment studies, instead, other monitoring efforts will be used as a proxy for this.	
	JMc : As there are no other comments, there is in principle agreement on the suggested monitoring for natal dispersal and colony interchange.	
8	Success and Adaptive Management LBr: Provided an overview of the criteria of strict success and what will trigger adaptive management measures.	
	AD : Flagged the benefit of agreeing on productivity levels and suggested a conversation should be held between expert ornithologists to agree on this. Ideally this should be agreed before the KIMP submission to provide clarity, rather than putting a commitment in the KIMP to agree on productivity levels in the future.	ALL - expert ornithologists within the group to agree on a range of productivity levels
	adaptive management, as other areas have had crows and gulls developing a predation habit.	DT to include predator management as a
		means of adaptive management
8	Reporting	
-	 DT: Provided an overview of reporting to SoS. The final KIMP will include details on: Surveys; Success criteria; Adaptive management measures; Factors used to trigger alternative compensation measures and/or adaptive management measures, and; Timescales. 	
	JMc : No comments, therefore, it is assumed there is in principle agreement on reporting to the SoS.	
9	Conclusions, actions and next meeting	
	Port of Great Yarmouth) up for consideration, and the need to positively address this as a group.	DT/JL to provide JMu with a representative for the Lowestoft
	JMc: stated the meeting recognised this point and provided their advice including	Kittiwake Partnership meeting
	JMu : Lowestoft Kittiwake Partnership is considering a meeting where offshore wind representatives will be invited to discuss how to collaborate going forward. An invite is extended to the Norfolk Projects to attend.	



No.	Description	Action
10	АОВ	
	JMc: Kittiwake SG members are welcome to get in touch with JMc at any point following the Kittiwake SG Meeting 2.	DT to send round minutes, slide pack, agreement log and action tracker
	members are in agreement. Vattenfall and SPR are working together on regionally coordinated compensation and are in the process of entering a cooperation agreement to formalise this collaboration for Kittiwake and LBBG.	CL to find a suitable date for a meeting in October



Norfolk Projects Offshore Wind Farm Kittiwake Steering Group Meeting 3

Teams Meeting

11/08/2022

10:00 - 13:00 GMT

Attendees:

Name	Role	Company
James Mckie (JMc)	KSG Chairperson	Eurona Consultancy Ltd
Peter Ryalls (PRy)	Advisory member	MMO
Andrew Dodd (AD)	Advisory member	RSPB
James Murphy (JMu)	Advisory member	RSPB
James Meyer (JMe)	Advisory member	East Suffolk Council
Graham Stuteley (GS)	Advisory member	East Suffolk Council
Kim Balls (KB)	Advisory member	Great Yarmouth Borough Council
Martin Kerby (MK)	Advisory member	Natural England
Alan Gibson (AG)	Advisory member	Natural England
Jake Laws (JL)	Senior Consents Manager	Vattenfall
Mark Trinder (MT)	Ornithologist Consultant	MacArthur Green
Louise Bridges (LBr)	Compensation lead	Representing Vattenfall
Dave Tarrant (DT)	Compensation lead and coordinator	Representing Vattenfall
Jon Allen (JA)	Onshore planning	Royal HaskoningDHV
Caitlin Lyng (CL)	Group secretariate	Royal HaskoningDHV
Marija Nilova (MN)	Offshore Environment Manager	SPR
lan Mackay (IM)	Senior Project Manager	SPR

Apologies:

Kathy Wood (KW) Vattenfall Adrian Clarke (AC) MMO Naomi Goold (NG) East Suffolk Council Phillip Ridley (PRi) East Suffolk Council Louise Burton (LBu) Natural England

Relevant Documents:

Final Minutes from KSG Meeting 2

Action tracker

Agreement log

Further information for Natural England on KIMP and Structure designs



No.	Description	Action
1	Introductions and Aims of the meeting	
	 JMc provided an overview of the aims of the meeting, which are as follows: Sign off minutes from KSG meeting 2; Agreement for amendment to be made to the PoW Sign off final designs of kittiwake nesting structures; Reach agreement on the maintenance schedule; Reach agreement on monitoring and management proposal; and Reach agreement of success criteria and adaptive measures JMc Introduced SPR members and reiterated NPS and SPR are working collaboratively. Reiterated members should continue to review Agreement Log. Reminded Steering Group Members (SGMs) that JMc will be unavailable for 	
	Kittiwake Steering Group (KSG) Meeting 4. DT Reminded KSG that publishing meeting minutes is a DCO requirement, therefore, minutes will be incorporated into the KIMP and published	CL to amend minutes from KSG2 changing 'MT' to 'MK'
	JMc No responses to the contrary and therefore minutes from KSG Meeting 2 will be accepted as a true record of the meeting.	
2		DT to include Paragraph 36 in
		Kittiwake PoW
	AD Indicated that he could see no problem with the BEIS amendment and Paragraph 36 (especially as similar wording to the BEIS amendment had been used for Hornsea Project Three) but will check this with RSPB Head of Environmental Law, subject to their availability. If they were unable to consider in the given timeframe, AD would feedback to DT.	AD to ask RSPB Head of Environmental Law if they had capacity to review BEIS
		amendment and provide feedback by morning of 16/08
	JMc DT to proceed with submission to BEIS if feedback from AD is not received. PRy/GS/KB Expressed their content with proposed BEIS amendment to PoW.	
3	 Further information on locations, site layouts and agreement where possible on: Site options Site layout: understanding the locations and site layout better (site suitability). Including the 3D models 	



No.	Description	Action
	LBr Provided a brief overview of location options. Lowestoft and Port of Great Yarmouth are progressing as priority sites for kittiwake compensation locations. Herbert Barnes Park and Bure Park in Great Yarmouth are also progressing, but not as rapidly as the two port options. Work is continuing to progress with offshore structure, but this remains lower down the preference list.	JL to confirm with ABP that the harbour wall will be maintained
	DT Presented SGMs site pictures taken at Lowestoft (Slides 10-13). NE previously expressed concern that buildings present at the port may hinder the ability of kittiwakes to access the nesting structure, but these buildings are no longer there. The three wall layout for the compensation structure has been proposed as it allows the maximum amount of ledge space for nesting whilst maintaining appropriate orientation for nests to ensure they don't overheat. Reiterated this thinking was guided by the MacArthur Green study.	
	JMc Noted that the nesting structure layout and orientation was guided using best available information.	
	MK Raised point that in KSG Meeting 2 it was suggested that the spacing between the wall structures was 3.5m.	
	DT Clarified that spacing between nesting shelf and the back wall of the next wall structure is actually 7.5m and the overhead plan views are slightly misleading as these present the maximum extent of the concrete foundations which extend much further (giving rise to the 3.5m concerns).	
	GS Queried whether the 3D designs of the wall structures had the correct orientation as the angle of the shadows to the sun appear to be mismatched.	
	DT Agreed that shadows aren't accurate, but the orientation of the sun can be changed in model.	
	MT Clarified that having the shadows in the correct place in the model would mean the shelves would be in shadow, making them hard to see.	
	JMu Noted that 3D model provided reassurance and there were no concerns with the spacing between the wall structures.	
	GS Queried whether there is a commitment for the existing 4m high harbour wall to be kept in place and maintained.	
	JL It is anticipated that the wall will remain in place, but will clarify this with ABP.	
	MK Queried whether it was possible for the proposed lease area at the Port of Lowestoft to be extended.	
	JL The proposed lease area for the kittiwake structure has been determined by the landowner and is restricted by an access gate and the presence of a lighting structure.	
	JMu The only outstanding concern is in regard to the fencing surrounding the structures and ensuring no materials will be used that could potentially be a hazard to kittiwakes.	
	DT Noted that the 3D model does not illustrate the current fencing design but did confirm that barbed wire will not be used. The intention is to request that the fencing supplier for the lesser black backed gulls (LBBG) compensation efforts provide a quote for a suitable fence at this location too. Reassured KSG members that this supplier has constructed many predator proof fences (including for the RSPB) and will not use barbed wire.	
	Noted that the supplier advised that a solid fence overhang may increase wind loading, which is a particular risk at coastal sites such as Lowestoft considering its exposed location, therefore, the overhang will be constructed from mesh and placed at an appropriate angle as stipulated in RSPB guidance.	
	II Noted the kittiwake fencing will be of the same specifications as the LRRC	



No.	Description	Action
	predator proof fencing.	to SGMs
	AD Suggested this is an area of concern and requested the circulation of the fencing specification for review and detailed follow-up to ensure it is compatible with structure design and safe kittiwake access.	
	DT Q3 Can it be agreed that there are no further concerns with Kittiwake access to the structures?	
	JMc Noted no disagreement from members and therefore this can be assumed to be agreed.	
	DT Q4 Can agreement be confirmed that the wall structure is the best option at Lowestoft?	
	JMc Noted no disagreement from members and therefore this can be assumed to be agreed.	
	DT Q5 Can agreement be confirmed that the proposed location at the port of Lowestoft is a suitable location for kittiwake compensation?	
	JMc Noted no disagreement from members and therefore this can be assumed to be agreed.	
	DT Presented an overview of the Port of Great Yarmouth site. SGMs were shown illustrations of how wall and tower structures would fit into the site showing the orientation and positioning of the structures at the site (Slides 15 and 16). SGMs were shown site photos taken at the Port of Great Yarmouth. Noted that there is an existing 8m high tower structure on the site, which would be higher than the proposed compensation tower structures (Slides 17 and 18).	
	MK Queried the purpose of the existing structure at the site.	
	JL Clarified that the structure is in use and associated with lighting and port navigation, however, it is largely remotely controlled from the harbour masters office and therefore wouldn't be expected to be a source of disturbance for kittiwakes.	
4	Detailed design of the artificial nest structures: • Steps taken to address comments on the detailed design structural report.	
	DT Provided a recap of the wall structure design. Addressed concerns raised in KSG Meeting 2 and in comments made by Natural England on the detailed design documents regarding the possibility of gulls nesting at the top of the wall structure. Noted that there is the possibility of a design modification to deter gulls, but this would raise the height of the wall structure and increase its visibility.	
	DT Q6 Given that this modification would raise the height of the structure and reduce the extent to which it is screened by the existing wall. Is this modification required?	
	JMu In documents shared ahead of KSG Meeting 3, in the Norfolk Project's response to comments made by NE, it was mentioned that the Lowestoft Kittiwake Partnership (LKP) preferred 45° angle to deter gulls. Would like to clarify the LKP doesn't have a preferred deterrent as the LKP doesn't want to deter birds from nesting, however there are a few effective deterrent options to prevent gulls from nesting that will not introduce risk of entrapment, injury or death. Their individual suitability will depend upon the situation. The only experience of gull predation on kittiwakes in Lowestoft has been on ABP's existing kittiwake wall, due to the ledges being too wide, allowing gull access. Noted that the potential for gulls to nest on flat roof of kittiwake nesting structure and the close proximity between kittiwakes and gulls will not necessarily result in successful predation. Narrow ledges may be enough of a deterrent.	
	JMc Noted that provided ledges are narrow enough to discourage gulls, there is no need to have additional add on top of tower.	DT to confirm with



Desc	ription	Action
	reried whether the 45°sloped roof could be incorporated into the nesting e if deemed necessary in the future.	designers when 45° sloped root be added to the
	ed the structure has been designed so components can be adapted but will with designers.	nesting structu the future
	ed this may be worth including in the KIMP as a potential adaptive ement measure.	DT to add 45° sloped roof as adaptive
concret structur	ed a design variation to the wall structure was in progress, where precast e would be replaced with steel in order to reduce the carbon footprint of the e and allow the structure to be more easily maintained. There will be no in external appearance.	management measure in KIMP
JMc No	ted no disagreements were raised.	
	vided a brief recap of artificial tower structure and queried the level of SGMs have in regard to the middle ledge.	
	What is the level of concern here? does the mid height shelf need to be d or modified?	
nesting	aised concerns as the risk of gulls landing on middle ledge and predating kittiwakes was still present. Queried whether a 45° slope could be ced to the middle ledge.	
DT Outl 1. 2.	ined two mitigation options to prevent large gulls from landing on the ledge: Option 1: Remove wide ledge and replace with narrower ledge. Drawback is this would expose kittiwakes nesting on the next ledge down to mess from higher ledges (Slide 27). Option 2: Add a 45° downward slope to the outside edge of the middle ledge. Drawback is this would only leave around a 20cm gap between bottom of overhang and top of next ledge down, which may not be high enough for kittiwake to nest (Slide 27).	
	ueried whether 45° slope could face upward rather than downward, angled the back of the wall, however, this would make middle ledge unsuitable for	
	option has been investigated and was shown to SGMs (slide 28) however s option nesting space on the bottom ledge of the top cabinet would be lost.	DT , MT and engineers to fir proposals on
	ed that the aim was to ensure kittiwakes were able to nest on the middle ather than making it entirely unsuitable for any birds to nest.	amendments to tower structure circulate these
	oted it is uncertain whether the downward angled slope would discourage es nesting on the next ledge below.	modified tower designs to the
height c	eried whether the modular design of the cabinet could be altered so that the of the uppermost section is slightly larger (by c.10cm) to accommodate the r the 45° downslope in the middle and still enable kittiwakes to access the slow.	steering group ALL to provide comments on o modifications
	gested this may make the tower structure slightly taller as a result but would minimum recommended gap between ledges is maintained.	
DT Sug	gested that this may require quite a lot of redesign work.	
	<i>Revisit</i> Q7 and if the answer is yes then which option is preferred? ed Option 2 is preferred option (downslope added to outside edge).	
	ried whether NE felt their comments on the detailed design structure had dequately addressed.	



No.	Description	Action
	MK Confirmed NE comments have been addressed.	
	DT Q9. Are you able to agree and sign off the final designs as presented?	
	JMc Subject to adjusting middle ledge design in line with option 2, noted no further disagreements.	
5	Recap on Implementation timetable for delivery of compensation Planning applications 	
	DT Ran through the updated timetable for delivery of compensation (Slide 32). Planning application for wall structure at Lowestoft was submitted W/C 08/08/2022 and planning applications for wall and tower structures at Great Yarmouth to be submitted W/C 15/08/2022. Noted it would be advantageous to have determination on planning applications before KIMP is submitted to the Secretary of State (SoS). Noted another SG Meeting would be beneficial once structures have been installed, in order to agree on a monitoring plan and the frequency of reporting back to the SG.	
	GS Clarified the determination period will be 8 weeks rather than 6.	
	DT Noted that no marine works will be taking place and a marine licence is not needed.	
	Break 11:20-11:35	
6	Landowner discussions	
-	LBr Discussions are ongoing with landowners and Heads of Terms are currently being drafted.	
	KB Noted the development of an Operations & Maintenance (O&M) campus at the Port of Great Yarmouth would result in infrastructure works occurring adjacent to the proposed location of the kittiwake nesting structure. Noted the KIMP stipulates 4 years of effective operation and raised concern as to whether the first year of kittiwake breeding may be compromised as a result of potential disturbance caused by the O&M campus development, which may result in a delay of 1 year in the compensation meeting its targets. Suggested Norfolk Project's could engage in conversation with Great Yarmouth Borough Council to identify any potential mitigation measures. This has been discussed with LBr and JA.	
	AD Queried whether KB could provide more information on the Operations & Maintenance campus and the potential interaction between this development and the kittiwake structure.	
	KB Summarised O&M campus development, with construction expected to begin in October/November 2022 and the 1 st phase of development will include the development of road infrastructure and storage areas.	
	available, so bodies such as the RSPB can gain a better understanding of the development timeline and how this may influence the kittiwake compensation,	KB to provide SGMs with further information on the O&M planning application
7	Maintenance schedule	
	MT Provided a recap of the maintenance schedule details (Slide 36) that will be included in the KIMP. Noted emergency repairs will be considered during the breeding season and discussed with NE in advance.	
	MT Q10. Any additional maintenance to take into consideration?	
	JMc Noted no further additions to the maintenance schedule and therefore the current proposal can be assumed to be agreed.	



No.	Description	Action
8	 Monitoring and Management Details of the number of birds colonising the structures Natal dispersal and colony interchange with the FFC Success and target alternative or adaptive compensation measures. Steps taken to address comments on KIMP 	
	MT Provided an overview of core and additional monitoring efforts (Slides 37 to 39). Core monitoring will take place every year (unless otherwise agreed with KSG and SoS) and will focus on the number of pairs and productivity and ringing efforts. Ringing will provide information on where chicks recruit to and whether adults are moving to different areas. Additional monitoring is expected within years 1-3 but may not need to be pursued in subsequent years. Noted any GPS tagging will need careful consideration of kittiwake welfare, and factors such as avian flu may constrain monitoring efforts that involve handling the birds (including ringing).	
	with facilitating work with local research groups and universities, as a result of the scientific opportunities that the project presents.	JMu to provide Norfolk Projects with contact information for local kittiwake
		partnerships and appropriate ringing groups
	MK Reiterated importance of working cooperatively with other monitoring efforts and ensuring monitoring efforts aren't repeated unnecessarily.	AD to provide
	AD Noted content with monitoring and management methods proposed. Will feedback this information to RSPB colleagues and provide feedback aligned with KIMP finalization programme	feedback on monitoring and management efforts
	MT Q11.Any other monitoring to be considered?	aligned with KIMP finalization
	JMu Queried whether there is scope to include new monitoring efforts at a later date, if found to be necessary and not included in the original additional monitoring list.	programme
	MT/JL Confirmed that the implementation of additional monitoring efforts is possible and would be considered in the future subject to agreement.	
	MT Provided a recap of natal dispersal and colony interchange, noting a primary focus on the Flamborough and Filey Coast SPA.	
	MT Q12. Any other options for monitoring natal dispersal and colony interchange?	
	JMc Noted no other options for monitoring were raised.	
	 <u>Success and adaptive management 1 – triggers</u> MT Provided a recap on the compensation target of the scheme (35 adult recruits to 	
	the Flamborough and Filey Coast SPA) and determining the success or failure of the scheme. Noted it was important to determine how failure could be defined and at what point this would trigger adaptive management efforts.	Norfolk Projects to set up a meeting on
	adaptive management measures colony establishment and growth period versus any "established" phase. The former may require a different approach. Noted	monitoring productivity with MT, Aly McCluskie, Francis Daunt and RSPB and NE SG
	DT Norfolk Projects to hold a meeting on monitoring productivity.	members
	GS/KB Confirmed they would not be in attendance at productivity meeting.	
	MK Highlighted limited resourcing capacity at NE and suggested approaching Francis Daunt at UKCEH to provide independent scientific advice on defining success and failure and alleviate resource constraints at NE.	



No.	Description	Action
	AD Confirmed Dr Aly McCuskie would be the ideal candidate from RSPB.	
	MT Q13. Any other measures of success / target setting to be considered?	
	JMc Noted no further measures proposed.	
	- Success and Adaptive Management 2 - remedies	
	MT Provided recap of adaptive management options (Slides 40 and 41) available dependent on what has already been used. These include enhancement measures and amendments to structure, modifications and consideration of alternative locations.	
	MT Q14. Any other measures of adaptation to be considered?	
	JMc Noted no other adaptive management measures raised.	
9	Reporting	
	DT Provided a recap of reporting to the SoS and what the final KIMP will include, including annual reporting to the SoS in September/October of each year. Noted that annual KSG Meetings may need to occur prior to reporting to SoS.	
	DT Q15. Any reporting measure to include?	
	JMu Queried whether monitoring data and reports would be publicly available.	DT to amend annual reporting date in
	JL Vattenfall will own the data and will discuss with SGMs whether to make this information publicly available and if any conditions need to be attached.	KIMP from October to end of November
	MK Noted annual reporting to SoS could be later than October, as this feels fairly early.	DT to include an in- principle timetable of
	AD/JMc Concur.	annual reporting within the draft KIMP
10	Mop up of any other comments received on KIMP	
	DT Provided an overview of the stages of the KIMP timeline and associated dates that the KSG needs to stick to (Slide 44).	
	57 5	ALL members to
		work to KIMP timeline stipulated to getting document
	DT Q16. Are there any other comments on the KIMP which we have not addressed?	approved
	MK Noted an interest in how SPR intends to collaborate with the Norfolk Projects.	
	AD Highlighted the importance of cooperation between the two projects when defining success criteria.	
	JL Norfolk Projects have a formal cooperation agreement with SPR which is close to being signed. Clarified this is a joint enterprise and both projects are working together with Vattenfall leading as Vattenfall's programme is slightly ahead of SPR's.	
	IM Concurred with JL's point that Vattenfall and SPR and working together on kittiwake and LBBG compensation efforts. Noted much progress has been made within this SG Meeting and the agreements that are made within these SG Meetings will be applicable to SPR's projects. SPR envisage that only one separate SPR SG meeting may be required as to wrap up on any SPR-specific matters.	
	MK Queried whether BEIS would accept a joint Terms of Reference.	



No.	Description	Action
	IM Noted this has been considered and from a stakeholder resource point of view there seems to be little benefit in repeating SG Meetings. SPR will submit its own Terms of Reference with similar content to that within the Vattenfall documents.	
	No objections were raised from SG Members	
	JL Noted that Vattenfall Terms of Reference have been agreed and submitted because it controls the start of construction and affects the delivery of compensation.	
	AD Noted that a collaborative approach to defining success criteria and implementing adaptive management measures will need to be defined in the future once both projects are working in sync.	
11	 Conclusions, actions and next meeting Mop up of previous actions (see Action tracker below) Agreement Log (LB) Conclusions from meeting LBr Noted that in the Agreement Log, unless explicit agreement or complete silence, agreements haven't been recorded. JMc Urged members to review Agreement Log, as this is a critical part of the programme. 	AD to provide feedback on Agreement Log CL to circulate minutes, pdf version of slide pack and updated Agreement Log
12	Any other business JMc Reiterated he will not be chairing the fourth KSG Meeting but a former Marine Scotland member of staff is being considered as a candidate as an independent chair is being considered. Noted KSG can suggest other independent chair candidates.	CL to send out doodle poll dates for productivity meeting
	 chair is being considered. Noted KSG can suggest other independent chair candidates. IM Reiterated SPR and Vattenfall are working collaboratively. Noted much progress has been made within this SG Meeting and the agreements that are made within these SG Meetings will be applicable to SPR's projects. Reiterated there is little 	•
	point for SPR to have another batch of SG Meetings, but a final, separate SPR SG Meeting may be required to wrap up on SPR-specific matters. In addition, from a stakeholder resource point of view there seems to be little benefit in repeating SG Meetings.	



Norfolk Projects Offshore Wind Farm Kittiwake Steering Group Meeting 4

Teams Meeting 06/10/2022 10:00 – 13:00 GMT

Attendees:

Name	Role	Company
lan Davies	Stand-in Chairperson	Independent
Peter Ryalls (PRy)	Advisory Member	MMO
Andrew Dodd (AD)	Advisory Member	RSPB
Jamie Murphy (JMu)	Advisory Member	RSPB
James Meyer (JMe)	Advisory Member	East Suffolk Council
Grahame Stuteley (GS)	Advisory Member	East Suffolk Council
Kim Balls (KB)	Advisory Member	Great Yarmouth Borough Council
Martin Kerby (MK)	Advisory Member and Principal Advisor	Natural England
Jake Laws (JL)	Senior Consents Manager	Vattenfall
Louise Bridges (LBr)	Compensation Lead	Representing Vattenfall
Dave Tarrant (DT)	Compensation Lead and Coordinator	Representing Vattenfall
Caitlin Lyng (CL)	Group Secretariate	Royal HaskoningDHV
Marija Nilova (MN)	Offshore Environment Manager	SPR
lan Mackay (IM)	Senior Project Manager	SPR
Mark Trinder (MT)	Ornithology Consultant	MacArthur Green
Shirley Raveh (SR)	Ornithology consultant	MacArthur Green
Kathy Wood (KW)	Head of Consenting Group	Vattenfall
Yana Bosseva (YB)	Offshore Consents Manager	Vattenfall

Apologies:

- Adrian Clarke (AC)Marine Management OrganisationJames Mckie (JMc)Eurona consultancy LtdAlan Gibson (AG)Natural EnglandNaomi Goold (NG)East Suffolk CouncilPhillip Ridley (PRi)East Suffolk CouncilZara Ziauddin (ZZ)Natural England
- Jon Allen (JA) Royal HaskoningDHV

Relevant Documents:

KIMP Version 3 including Annexes

KSG Agreement Log



Kittiwake Compensation Consultation Report

Final minutes from KSG Meeting 3

No.	Description	Action
1	Introductions and Aims of the meeting ALL Introductions	
	ID Highlighted importance of reaching a conclusion on all outstanding matters and resolving any outstanding issues, in time for submission to the Secretary of State (SoS) on October 25 th 2022.	
	DT Stated that members will have the chance to bring up any near-final comments during the meeting.	
	 DT Ran through the agenda and aims of the meeting, which are as follows: 1. Approve minutes from KSG Meeting 3 2. Agree fence specification. 3. Approve adaptations to middle ledge design change (Annex 5 of KIMP) 4. Conclude agreement on the maintenance schedule. 5. Reach agreement on monitoring and management proposal 6. Reach agreement of success criteria and adaptive measures 7. Agree how to address all outstanding comments on the KIMP 	
	DT Q1 Are you able to approve the final minutes from KSG3 sent out prior to this meeting.	
	ID Noted no disagreements, KSG3 minutes approved.	
	DT Thanked members for reviewing Kittiwake Agreement Log and Kittiwake Implementation and Monitoring Plan (KIMP) Version 3. Highlighted importance of reaching agreement in the Agreement Log, so that the SoS can approve the KIMP without needing to go to further consultation.	
2	Detailed design of the artificial nest structures: (Slide 6) Steps taken to address comments 	
	DT Noted agreement has been reached on the location of the compensation (Lowestoft).	
	Wall structure drainage concerns (Slide 7) DT Showed Steering Group Members (SGMs) virtual 3D model of artificial nest wall structure. Concerns were previously raised regarding the potential for water to accumulate in foundation of structure. RHDHV engineers suggested the steel would be coated with marine standard paint to prevent rusting and the concrete foundations would sit slightly proud of the existing slab, allowing water to drain away and prevent standing water.	
	GS Confirmed these amendments have addressed the concern of standing water.	
	MK Suggested that biosecurity may have been an issue if standing water were to	



No.	Description	Action
	accumulate, in addition to the accumulation of bird debris/faeces, as there is evidence that avian influenza may exist in standing water. The proposed design modification reduces this risk and may help with the future potential need to disinfect surfaces to combat avian influenza.	
	DT Queried whether disinfecting surfaces should be considered an adaptive management measure.	
	MK Not necessarily.	
	MT Conversations with The Animal and Plant Health Agency (APHA) and epidemiologists at the University of Glasgow have highlighted importance of being mindful of the long-term potential of avian influenza virus to persist.	
	ID Queried whether there is the possibility of carcases accumulating and how this would be dealt with.	
	MT Noted this could happen and that government guidelines and best practice would be followed when removing these carcasses.	
		MT to include line in KIMP stating best
	AD Suggested including a line in the KIMP that best practice would be followed when dealing with carcasses.	practice would be followed when removing carcasses.
	Middle ledge concerns (Slide 8)	
	DT Concerns regarding the middle ledge of the artificial nest tower structure have been addressed as the shelves will be moved down to increase the height between the shelf and overhang, and a 45-degree angled shelf would prevent large gulls landing on the middle ledge.	
	JMu Noted this addresses RSPB's previous concern of gulls landing on the middle ledge.	
	Fence design (Slide 9) DT Concerns over how kittiwakes would navigate over the fence and not get caught have been addressed as the fence would be 2m high and the lowest ledge of the wall structure would be 2.3m high. No barbed wire would be present on the fence.	
	Jmu Noted this resolves RSPB's previous concerns of kittiwakes hitting the fence and becoming injured or trapped.	
	DT Noted that the mesh size has been proposed as 5 x 10cm, which is in accordance with the Predator Exclusion Fence Design Manual and reiterated that the main aim of the fence is to exclude predators, namely foxes.	
	Jmu Agreed that predator exclusion is an important design requirement, and this mesh size excludes predators. RSPB had a previous concern that kittiwakes would get trapped in the mesh, but this has been addressed.	
	Agreement and sign off on designs (Slide 10) DT Q2 We now believe all designs have been agreed and can now be signed off.	
	MK Raised comment previously made by Natural England (NE) regarding the use of book ends on the artificial wall structure as a mitigation for avian influenza, and	



No.	Description	Action
	whether this would be implemented as a measure.	
	MT Noted modifications to minimize transmission risk were discussed with APHA. Vertical partitions can be added but would make access to the ends of ledges from the rear more difficult (I.e., to ring chicks etc.). Concerns regarding transmission through faecal matter are expected to be addressed due to staggered shelf widths (wide at top, narrower below). Cleaning ledges during the winter season could be an option, but this may be counterproductive to kittiwake colonisation.	MT to include disinfecting nests as a potential adaptive management measure in KIMP
3	 Recap on Implementation timetable for delivery of compensation (Slide 12) Planning applications 	
	MK Queried whether both KSG Meeting 5 and lesser black-backed gull SG Meeting	CL to send Doodle Poll link to KB, JMu
	DT Noted that the Kittiwake Plan of Works has been approved by SoS.	and Aly McCluskie
	ID Members agreed to hold SG5 in November 2022.	
	Recap on Planning Applications (Slide 13) DT Planning permission at Lowestoft granted on 5 th October 2022.	MK to follow up on whether NE will be
	KB Confirmed planning decision at Great Yarmouth currently due to be provided on 1 st November 2022, or the week after. Noted that no consultation responses had been received from Natural England or RSPB.	providing a consultation response
	JMu Noted RSPB would not be providing a response, and that there was awareness in Lowestoft of the Great Yarmouth planning application.	
4	Landowner Discussions (Slide 14)	
	LBr Provided a recap of landowner discussions. Noted all parties have agreed in principle to the terms of the Option Agreement and Lease for the Lowestoft site. These discussions are ongoing for the Great Yarmouth port site.	DT to include
	AD Queried whether thought had been given to negotiating lease extensions and when these would begin. If the lease holder chooses not to extend the lease, it would likely take time to find a new, appropriate location to establish a new colony, and agree a lease for this location.	commitment to having lease extension discussions in sufficient time before
	JL The decommissioning of structures can't happen without prior consent from the SoS. Confirmed that discussions of lease extension would be had well in advance of the lease expiring.	lease ends
	DT Noted that lease agreement has the option to move forward in 5-year chunks once the 40 year lease has expired.	
	ID Noted no other comments.	
5	Maintenance Schedule (Slide 15) MT Maintenance schedule for artificial nest structures have been agreed.	MT to include commitment in KIMP
L		1



No.	Description	Action
	MT Q3 Any additional maintenance to take into consideration? ID Noted the SG members raised no additional maintenance measures.	that best practice would be followed in regard to avian influenza
		MK to consult NE ornithologists to get steer on best practice for dealing with avian influenza and feedback during KSG Meeting 5
6	Monitoring success criteria and adaptive management	
	Report on Expert productivity meeting (held 14 th September 2022)	
	Proposed camera systems	
	Weather recording	
	Setting triggers in line with wider population – being adaptive with adaptive management	
	Monitoring and Management (Slide 18) MT Recap of core and additional monitoring methods proposed. Noted core focus is on number of pairs and productivity, which will be monitored on a regular basis. Factors influencing breeding success will also be monitored. Opportunities for monitoring collaboration with academics or other compensation developers will be pursued when the opportunities arise.	
	ID Queried whether a regional/national study/research group exists for kittiwakes.	
	JMu RSPB had a meeting with a representative of the Kessingland ringing group and noted there is an appetite to initiate kittiwake monitoring.	
	MT Noted that Steve Piotrowski has been approached and is interested in being involved with monitoring efforts.	
	MT Q4 Any other monitoring to be considered?	
	ID Noted no additional monitoring proposed.	
	Monitoring with Cameras (Slide 19-20) MT Have been investigating the use of cameras for kittiwake monitoring and data extraction. Data filtering and management is key in order to have a manageable quantity of data. Initially data will be viewed manually, but post year 1, the idea is to have a training dataset that can be used to create an algorithm to automate some data collection tasks. Noted that cameras could include infra-red/low light level cameras, and in year 2/3 of monitoring camera traps may be installed in selected cabinets.	DT/MT to look into Baltic Seabird
	MK Queried whether learning could be taken from the Baltic Seabird Project, who have installed cameras on artificial structures.	Project
	JMu Noted that any cameras installed must be kittiwake proof to prevent kittiwakes nesting on them.	
	MK Noted that as the site is not publicly visible, such footage may benefit any initiatives to get the people of Lowestoft on board with kittiwakes.	MT/DT/JL to look into creating live
	GS Suggested live camera feeds into relevant websites to raise awareness of the initiative and its success.	streams from cameras installed on
	MT/DT/JL Agreed this would be investigated further once cameras had been	artificial structure



No.	Description	Action
	installed.	
	ID Suggested using a numbering system for columns and levels to help identify specific nests.	MT/DT to consider using a numbering system for nest
	MT Expert meeting highlighted importance of collecting contextual information to better understand any influences on kittiwake productivity, for instance installing a waterproof temperature logger to identify whether some parts of the nesting structures are slightly less suitable.	identification
	Natal Dispersal and Colony Interchange (Slide 22) MT Q5 Any other options for monitoring natal dispersal and colony interchange?	
	ID Queried whether there was the opportunity to collaborate with other organizations making observations at the FFC SPA and adjacent colonies such as Scarborough.	
	MT Noted RSPB were conducting monitoring in Flamborough.	
	JMu Suggested reaching out to Tyne Kittiwake Partnership who are actively monitoring kittiwakes in Newcastle. No partnership in Scarborough but there are a number of individual observers. Noted a conference took place this year (2022) organized by the University of Durham, hosting observers of urban kittiwake colonies.	JMu to provide MT with contact details of organiser from Durham University
	ID Noted no other options had been proposed by the meeting, apart from potential collaboration with pre-existing groups.	Duman Onversity
	Success and Adaptive Management (Slide 23-24) MT Reiterated that during the Expert meeting (with RSPB and the Centre For Ecology & Hydrology), productivity of compensation colony was agreed as the key thing to monitor but context is equally important. The productivity threshold of 180 fledged chicks/year in at least 3 of 5 years remains the aim, but this needs to be considered within status and performance of the wider population.	
	ID Queried whether the 5 years would begin immediately after the structure is installed.	
	MT Noted productivity monitoring had initially been separated into a growth phase and steady state phase, now combined into an overall target which allows for the fact the colony will need to become established and grow, before investigating whether colony growth is on target.	
	AD Queried Paragraph 67 in the KIMP Version 3 and whether there would be a commitment in the KIMP to investigate any problems that the colony may experience.	
	MT Noted there is a commitment to collaborate in order to understand the status of the wider population.	MT/DT/AD to
		produce updated wording for the KIMF and LBBGIMP, regarding investigations into wider kittiwake
	MT The purpose of the monitoring is to collect information that is relevant to this, but it is not Vattenfall's sole responsibility to investigate why the wider kittiwake population is failing.	
	AD Agreed it would not be Vattenfall's sole responsibility, but Vattenfall should be actively involved in any investigations that take place.	
	ID Q6 any other measures of success/target setting to be considered?	
	ID Noted no other suggestions raised.	



No.	Description	Action
	MT Provided a recap of adaptive management options available, including structural enhancements, use of decoys and colony playback. Noted list isn't exhaustive as it is not possible to provide such a list in advance.	
	JMu Queried whether thought had been given to the possibility of an existing colony nesting site becoming unusable (for instance the Lowestoft pier used by an existing kittiwake colony collapsing into the sea), which may cause kittiwakes to move to the proposed artificial nesting structure, preventing the arrival of new recruits.	
	MT Noted this had not been specifically considered.	
	DT Queried what the size is of the biggest existing colony at Lowestoft that could hypothetically move.	
	JMu Approximately 116 kittiwakes at the Lowestoft church. Kittiwakes here have been counted by local enthusiasts. Demonstrates importance of establishing monitoring across Lowestoft in order understand kittiwake movement and identify whether such a situation has occurred.	
	ID Q7 any other measures to be considered?	
	ID Noted that the adaptive management approach is to consider any/all measures when necessary. Noted no other measures had been raised by the SG.	
	MK Queried whether dramatic interventions such as reorientating structures or relocating structures were included in the KIMP.	
	MT Confirmed these were in the KIMP.	
7	Reporting (Slide 26-27)	
	DT Noted that reporting to the SoS has an element of flexibility involved. Confirmed the KSG would be informed of monitoring information and should any adaptive management measures be needed these would be discussed with the KSG.	
	ID Noted no further comments were raised.	
10	Mop up of any other comments received on KIMP (Slide 28)	
	DT Highlighted tight timeframe between addressing comments returned on KIMP Version 3 and sending KSG Members KIMP Version 4.	
	DT Q9 Are there any other comments on the KIMP which have not been addressed?	
	AD Queried the timing of port construction works at Lowestoft and Great Yarmouth	JL to contact ABP regarding any updating timings on
	DT Any information on the ABP development that is not already in the public domain can't be included in the KIMP.	port construction works
	AD Included in the KIMP is a paragraph stating ABP works at Lowestoft will be 'well to the north of the compensation'. Queried what 'well to the north' means.	
	DT Confirmed the ABP works at Lowestoft would be at least 100m away from the nesting structure and on other side of the 4m wall to the rear of the colony site, meaning there would be minimal disturbance to kittiwakes from the construction of the offices.	
	posting structure at Great Varmouth, to provide an alternative structure	DT to include commitment in KIMP
		to provide screening to mitigate noise



No.	Description	Action
	nesting structure to be constructed.	impacts
	DT Confirmed Agreement Log would be updated noting slight preference of Natural England to have a tower structure installed at Great Yarmouth.	
	DT Queried when members would be returning comments on KIMP Version 3.	DT to chase KB on if/when comments on KIMP Version 3
	GS Confirmed no further comments would be provided.	
		would be returned
	AD RSPB will return comments by 07/10/2022	
	ID Q9 Are there any other comments on the KIMP which we have not addressed?	
	ID Noted no other comments raised.	
	DT Proposed each Steering Group Member provide an email confirming the Agreement Log is an accurate reflection of their position, and that they have reviewed and contributed towards the production of the KIMP, in order to minimise the chance of the SoS running further consultation before approving the documents.	
	AD/MK Suggested including 'reflection' in the wording of the email agreement.	
	ID Notes new phrasing is much stronger and clearer and gets rid of ambiguity.	DT/CL to send out wording for email agreement
12	Conclusions, actions and next meeting (Slide 30)	
	1. Mop up of previous actions (see Action tracker below)	
	2. Agreement Log	
	3. Conclusions from meeting	
		ALL to review wording in the Agreement Log and provide comments
	DT SoS provided direction on the number of kittiwakes to compensate for and the Norfolk Project's are following this guidance and providing space for 375 nests. Lowestoft is enough to provide the compensation required by the SoS but recognise that NE don't agree that this is enough and that this should be made clear in the Agreement Log.	DT/MT/JL/MK to draft amendments to wording in Agreement Log regarding number of nests, and reach agreement
		AD to cross check monitoring in Agreement Log with Aly McCluskie
	AD Noted it would be helpful to see where this discussion ends, and that RSPB reserved the right to modify their entry in the agreement log on this point.	CL to send out KIMP Version 4, minutes,



No.	Description	Action
	KW Highlighted that the aim of the KSG is to deliver the compensation requested by the SoS and noted that there is agreement that the KIMP will deliver this. Whether	Agreement Log and the email agreement log
	MK Noted NE agree that the KIMP has been developed to provide compensation and agreed to differentiate between what compensation the KIMP will provide and NE's view that more compensation is required. NE's view is that the compensation needs to be scaled in order to deliver compensation for the wider network.	
	ID Suggested that additional locations could be considered if it is clear that the colony at Lowestoft is underperforming and extreme adaptive management measures need to be put in place.	
	DT Noted that agreement on the appropriate range of productivity to be used as a measure of success will be determined at KSG Meeting 5.	
13	Any Other Business	
	ID Noted no other business was raised.	