

From: Dominika Phillips [mailto:DOMPH@orsted.co.uk]
Sent: 08 February 2019 21:06
To: KJ Johansson; Kay Sully; Hornsea Project Three
Cc: Andrew Guyton; Stuart Livesey
Subject: Hornsea Project Three (UK) Ltd response to Deadline 6 (Part1)

Dear Kay, K-J

We are pleased to enclose Ørsted Hornsea Project Three (UK) Ltd (“the Applicant”) response to Deadline 6, Friday 8th Feb 2019. These documents have been prepared by the Applicant and have been produced in response to the Examining Authority’s (ExA) letter of 9 October 2018 (“the Rule 8 letter”).

These documents are being issued over a series of emails, each email containing a pdf file or files. The **last** email to be issued by the Applicant will contain a supporting file tracking sheet – to help the ExA ensure that it has received each email transmission.

Please acknowledge safe receipt of these documents.

If we can be of any assistance in that regard, please do not hesitate to contact myself or Andrew Guyton.

Best regards,
Dr Dominika Chalder PIEMA
Environment and Consent Manager



Environmental Management UK| Wind Power
5 Howick Place | London | SW1P 1WG



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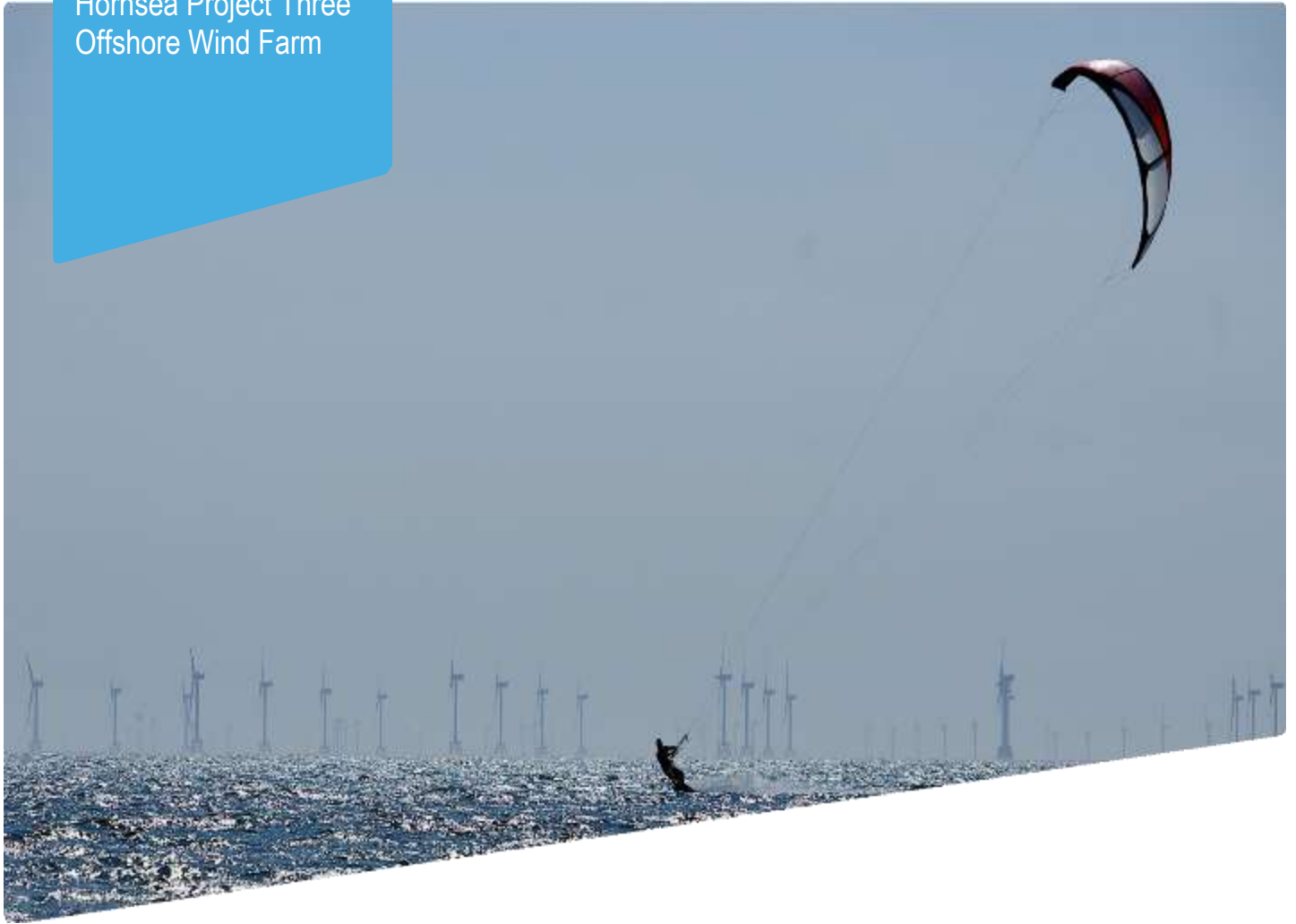
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Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three Offshore Wind Farm

Applicant's comments on Written Representations and
Responses submitted by Interested Parties at Deadline 5

Date: 8th February 2019

Document Control			
Document Properties			
Organisation	Ørsted Hornsea Project Three		
Checked by	Pinsent Masons		
Approved by	Andrew Guyton		
Title	Applicant's comments on Written Representations and Responses submitted by Interested Parties at Deadline 5		
PINS Document Number	n/a		
Version History			
Date	Version	Status	Description / Changes
08/02/2019	A	Final	Submission at Deadline 6 (08 Feb 2019)

Ørsted

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Front cover picture: Kite surfer near a UK offshore wind farm © Ørsted Hornsea Project Three (UK) Ltd., 2019.

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1. Introduction

- 1.1 Following further submissions of Written Representations by Interested Parties at Deadline 5, the Applicant has taken the opportunity to review each of the Written Representations received by the Planning Inspectorate. Details of the Applicant's responses to those representations that required response are set out within this document in subsequent sections below.

2. Applicant's Comments on Written Representations

Oulton Parish Council Written Representation (REP5-023)

Interested Party Written Representation	Applicant's Response
<p>Oulton Parish Council (OPC) welcomes this opportunity to comment at Deadline 5 on the current status of the planning issues in relation to the Main Construction Compound at Oulton.</p> <p>OPC remain committed to engaging with the applicant and all interested parties. Most recently in a meeting with Norfolk County Council Highways we were told of the applicant's proposed use of smaller cable drums. This was to try and solve significant logistical and site access problems. Such a plan would, obviously, further increase the cable drum deliveries to the Main Construction Compound that, as we identified in our Deadline 4 submission, would be difficult to fit in to the "active" construction period. This reinforces OPC's opinion that, in view of the exceptional situation where two large projects are under examination for DCO simultaneously, there are huge dangers in leaving many big traffic issues unresolved at DCO stage "to be finalised in the CTMP post-consent", as the applicant is seeking.</p> <p>OPC have yet to see the applicant's VISSIM modelling of expected traffic flows for the use of the Compound, both in isolation and with the cumulative effects of Vattenfall. We are hoping to see a demonstration on 25 January for the first time.</p> <p>OPC is very concerned and sceptical about the ability of traffic to be 'choreographed' successfully along a rural road with passing places - given that most of the traffic will be outside the applicant's control - e.g. agricultural/other HGV/residential. OPC would also like it to be recorded</p>	<p>The Applicant would note that discussions with Oulton Parish Council (OPC) have progressed since Deadline 5, and would provide the following update on the matters raised by OPC:</p> <ul style="list-style-type: none"> • The Applicant confirmed that the movement of cable drums, which constitute abnormal load movements would be controlled through the detailed CTMP. As set out in the outline CTMP (REP4-024), the Applicant is required to agree the timing, routing and parameters (weight, length and width) of abnormal load movements with the highways authorities prior to any such movements taking place. This is a standard approach for the planning of abnormal load movements. Clarification was provided by the Applicant that although efforts would be made to plan abnormal load movements outside of the network am and pm peaks, it would not be appropriate for this to form a project commitment due to the potential for unforeseen circumstances, or circumstances outside of the Applicant's control, which may require delivery within these periods. • The Applicant has applied a Rochdale Envelope approach and the maximum design envelope parameters for the cable drums assessed in the Environmental Statement are up to 4.5 m in width and 4.7 m in height. The Applicant confirms that due to constraints on the local road network, there is potential that at some locations, smaller cable drums may be utilised (and that not all cable drums necessitate the need to be transported by

Interested Party Written Representation	Applicant's Response
<p>that we remain extremely concerned about the severe impact this access route will have on the residents of The Old Railway Gatehouse, and the lack of any meaningful mitigation proposals.</p>	<p>way of abnormal loads). Should this occur, the total number of movements would not exceed the maximum design scenario assessed within the Application (in respect to number of movements, or the timeframes over which they would be undertaken).</p> <ul style="list-style-type: none"> • The Applicant notes that VISSIM modelling has been undertaken to assist in the engagement process with Oulton Parish Council and has not been requested by any statutory consultees, including Norfolk County Council. The Applicant has taken comments raised by OPC within REP4-123 on board, and provided an updated VISSIM modelling report at Deadline 5 (REP5-016) which is considered to address the concerns raised. In particular, the Applicant would draw attention to paragraph 2.12, which sets out the approach taken to the inclusion of agricultural vehicles within the model. • In respect to cumulative effects, the Applicant notes that although no significant cumulative effects have been identified in EIA terms (based on Norfolk Vanguard PEIR material), consultation between Hornsea Three and Norfolk Vanguard has continued in order to ascertain the cumulative impacts of traffic on shared roads (making use of the latest information available for both projects) (as set out in the Statements of Common Ground submitted for Deadline 1 and Deadline 4 (REP1-222 and REP4-021)). Following refinement of the construction traffic flows by Hornsea Three (see Appendix 7 of Deadline 4 (REP4-028)), both parties have engaged Norfolk County Council as the highways authority to reach agreement in respect to the links to be assessed, and the flows to be utilised within the cumulative

Interested Party Written Representation	Applicant's Response
	<p>assessment. The Applicant would refer to Appendix 25 submitted at Deadline 6 which provides an update on the cumulative assessment with Norfolk Vanguard.</p> <ul style="list-style-type: none"> The Applicant has provided, at Appendix 23 submitted at Deadline 6, an assessment of the potential for noise and vibration impacts on residential receptors along The Street (The Old Railway Gatehouse). This confirms that no significant noise and vibration effects are predicted but outline optional mitigation offered by the Applicant (the nature of which have been informed by discussions with the residents of the Old Railway Gatehouse), should the residents request it. <p>The Applicant would furthermore note that it met with OPC and NCC on 25th January regarding the access strategy to the Main Construction Compound. At this meeting, it was agreed that the Applicant would provide wording within the Outline CTMP committing to other management measures such as signage along the B1145 and The Street – these are provided in section 5.2 of the Outline CTMP submitted as Appendix 3 at Deadline 6.</p>

Trinity House Written Representation (REP5-024)

PINS Ref Number	Question is addressed to:	ExA Questions	Interested Parties (IP) Response at D5	Applicant's Response
Q2.5.1	Maritime and Coastguard Agency (MCA)	<p>The Applicant [REP2-005] and the MCA [REP3-084] disagree as to whether the Design Principles should require at least two lines of orientation. Please explain why you come to different conclusions on this matter. Are there examples of comparable OWFs which do not have at least two lines of orientation? If so, what is the typical spacing of Wind Turbine Generators (WTG) in those examples?</p>	<p>Trinity House are of the opinion that the recommendations laid out in MGN543 with regard to lines of orientation should be adhered to as closely as practicable. The UK national strategy is to abide by UNCLOS and to allow free navigation through offshore windfarms once operational only restricted by safety zones for maintenance purposes. Surface Navigation through a windfarm is best achieved in straight lines. During times of restricted visibility this requirement is enhanced. As the mariner may also require to alter course due to changes to weather and sea conditions encountered during their passage through a windfarm this, in our opinion, would be best achieved with two lines of orientation.</p> <p>The two lines of orientation are optimal for surface and air search and rescue operations especially over a large area and this must be considered when assessing fewer lines of orientation.</p> <p>We acknowledge that there are windfarms</p>	<p>In January 2019 the Applicant held a teleconference with the Trinity House and the MCA to discuss the (Array) Layout Development Principles. The guidance provided in MGN 543 which states <i>'Developers should plan for at least two lines of orientation unless they can clearly demonstrate that fewer is acceptable'</i> [emphasis added] was discussed in relation to the inclusion of a single line of orientation (SLoO) within the Development Principles for Hornsea Three.</p> <p>As reflected at Deadline 4 both parties agreed that a SLoO would be acceptable if a suitable safety case is presented (Principle Three of the Layout Development Principles (REP4-075)). The Applicant clarified that the safety case is presented within the Navigational Risk Assessment (NRA) [APP-112]. During a consultation meeting in December 2017, the key points of the safety case for a SLoO were discussed and agreed:</p> <ul style="list-style-type: none"> • Predicted levels of transiting vessels through the array (recreational and commercial fishing) will be low compared to other constructed and/or consented wind farms due to the distance offshore.

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			<p>with only one line of orientation, but these have been individually assessed, as these assessment must always be on a case by case basis, allowing for the area and expected marine traffic within the analysis of the risk.</p>	<ul style="list-style-type: none"> • Fishing stakeholders are more concerned with minimum spacing and foundation types than array layout; • Hornsea Three resources will be on site regularly and most likely to respond to an incident under SOLAS obligations; • No other project borders the Hornsea Three array area therefore no precedent is being set. <p>Other evidence and discussion presented as part of the application and examination process includes:</p> <ul style="list-style-type: none"> • Historical data that indicates vessels that do choose to navigate through arrays do not typically do so in straight lines (see section 23.13.3.8 of the NRA [APP-112]); • No evidence has been presented that suggests vessels alter their navigation through a wind farm during fog or adverse weather;

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				<ul style="list-style-type: none"> • As per MGN 372 vessels are more likely to passage plan effectively (as required by SOLAS V) and due to the available sea room avoid the array completely¹, and • The Applicant's SAR helicopter specialist demonstrated that there is no risk to air SAR operations associated with one line of orientation when considering the 1,000m / 1 kilometre (km) minimum spacing. <p>Vessel operators were also identified in the NRA [APP-112] using the Automatic Identification System (AIS) traffic data and were invited to comment on the development and attend a Hazard Workshop held at the Ørsted offices in London in February 2017. During the meeting, all commercial operators present agreed that commercial vessels would not generally use the array area for transiting. Evidence also demonstrates that commercial vessels are unlikely to transit through the array given there</p>

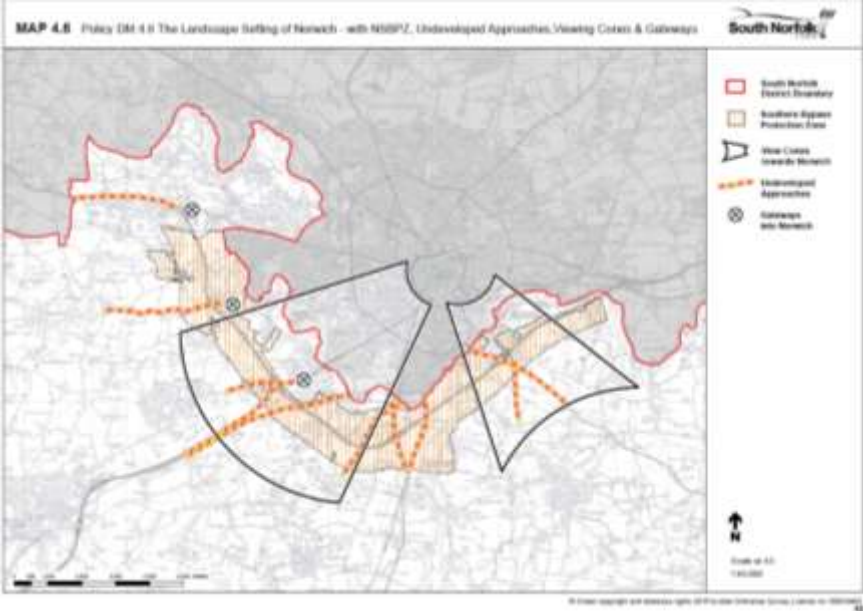
¹ MGN 372 states 'These notes do not provide guidance on a safe distance at which to pass an OREI, as this depends upon individual vessels and conditions. However where there is sufficient sea room it is prudent to avoid the area completely'.

PINS Ref Number	Question is addressed to:	ExA Questions	Interested Parties (IP) Response at D5	Applicant's Response
				<p>are no distance/time benefits to doing so and as per MGN 372 a number of operators (including a regular commercial ferry operator in the area) stated they would avoid navigating through the array.</p> <p>In their D5 response to the ExA's further written questions Trinity House state that two lines of orientation are optimal for surface and air SAR operations and refer to the UK's national strategy to abide by the United Nations Convention on the Law of the Sea (UNCLOS) and allow free navigation through offshore wind farms. The Applicant notes that Article 193 of UNCLOS states that nations have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment. It is also noted that UNCLOS does not explicitly state that free navigation should be permitted within an offshore wind farm, but rather the state reserves the right to determine the limits of free navigation setting a basis for the implementation of safety zones under Article 60. It is actually UK national legislation that therefore dictates that the rights of navigation should be extinguished only at the precise location of the wind farm structures, and safety zones may be used as a measure to ensure navigational safety (The Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and</p>

PINS Ref Number	Question is addressed to:	ExA Questions	Interested Parties (IP) Response at D5	Applicant's Response
				<p>Control of Access) Regulations 2007).</p> <p>As part of the application process the Applicant has done extensive assessment and consultation into array design and access for shipping and navigation with the NRA and ES. This process demonstrated that navigational safety when navigating internal to the array was broadly acceptable (ALARP) with the MCA agreeing in their SoCG with the Applicant that 'the assessment of potential changes to shipping and navigation is appropriate and <u>no impacts</u> from the construction, operation and maintenance and/or decommissioning of the Project will be significant in EIA terms'.</p> <p>With regard to Trinity House's written response to ExA second questions submitted at Deadline 5 regarding projects being considered on a case by case basis, this is accepted by the Applicant. However evidence submitted to the examination process demonstrates that Hornsea Three does demonstrate a safety case for a single line of orientation and is comparable on a case by case basis against those projects that have a SLoO, notably Hornsea Project One and Hornsea Project Two. This comparison includes:</p> <ul style="list-style-type: none"> • Distance Offshore - An increased distance offshore and therefore lower levels of small craft likely to be transiting the array.

PINS Ref Number	Question is addressed to:	ExA Questions	Interested Parties (IP) Response at D5	Applicant's Response
				<ul style="list-style-type: none"> • Traffic Density -Traffic densities per nm² for Hornsea Project One and Hornsea Project Two are 0.10 vessels per day and 0.09 vessels per day respectively. For Hornsea Three this value is lower at 0.07 vessels per day. • Internal Spacing - Minimum internal spacing committed to by the Applicant is larger than other existing constructed or consented Round Three developments including Hornsea Project One and Hornsea Project Two giving vessels more sea room to navigate and manoeuvre within the Hornsea Three array area (when considering turning circles and rates of turn).

Mulbarton Parish Council Written Representation (REP5-025)

Interested Party Written Representation	Applicant's Response
<p>Please see attached map of the Norwich Southern Bypass Protection Zone (NSBPZ); although discussed previously it has a bearing on the site visits and hearings taking place next week, specifically a site outside of the zone is to be preferred.</p> 	<p>The Applicant would refer to Volume 1, Chapter 4: Site Selection and Alternatives (APP-059) and supporting Annex 6.4.4.3 ES Volume 4 – 4.3 – Refinement of the Onshore Cable Corridor and Associated Infrastructure (APP-094), which sets out the reasons why the site proposed for the onshore HVDC converter/HVAC substation has been chosen.</p> <p>The Applicant would also refer to Volume 3, Chapter 4: Landscape and Visual Receptors chapter of the Environmental Statement (APP-076) which presents the assessment of impacts on the Norwich Southern Bypass Landscape Protection Zone. This concludes that although the onshore HVDC converter/HVAC substation would affect the landscape of the zone as seen from travellers in fast moving vehicles on the A47 where it approaches and passes the site, it would not establish the bypass as a 'development corridor'. The Applicant would refer to the Statement of Common Ground with South Norfolk District Council (REP4-020), which confirms that SNC considers the visualisations provided by the Applicant adequately demonstrate the likely visual effects and equally accept that the infrastructure, as well as the associated landscape planting, would decrease the openness within the Norwich Southern Bypass Landscape Protection Zone.</p> <p>The Applicant maintains that the site proposed for the onshore HVDC converter/HVAC substation is appropriate and has sought to mitigate landscape impacts arising from the onshore HVDC converter/HVAC substation through proposed woodland planting between it and the road as shown in the Outline LMP (REP4-025).</p>

RSPB Written Representation (REP5-027)

Interested Party Written Representation	Applicant's Response
<p>Changes to the Draft Development Consent Order</p> <p>The RSPB welcomes the change to Requirement 10, Ecological Management Plan, in Schedule 1 of the Development Consent Order that clarifies the requirement for a written ecological management plan to be approved by the relevant planning authority before onshore site preparation works can commence.</p> <p>The RSPB welcomes the change to Requirement 17, Code of Construction Practice, in Schedule 1 of the Development Consent Order that requires all construction work to be undertaken in accordance with the relevant approved Code of Construction Practice.</p>	<p>Noted.</p>
<p>Changes to the Outline Ecological Management Plan</p> <p>The RSPB notes the changes that have been made in section 4.3.4, Wintering and migratory pink footed goose, and 5.4.3, Wintering and migratory birds. Our comments on the Outline Pink-Footed Goose Management Plan are included in our comments on the Outline Code of Construction Practice.</p>	<p>Noted.</p>

Interested Party Written Representation	Applicant's Response
<p>Changes to the Outline Code of Construction Practice</p> <p>The RSPB has reviewed the Outline Pink-Footed Goose Management Plan attached as Appendix F to the latest version of the Outline Code of Construction Practice.</p> <p>In paragraph 6.5.140 the final bullet point suggests that some works could take place during the winter as they are low key and will be limited in impact. However, we note that no detail has been provided to justify why they have been determined to be low key. People outside of vehicles can be perceived as a threat, and if they are out in the open they could disturb geese nearby. We consider that training of all staff to identify pink-footed geese and make the right decisions via the toolbox talks would help ensure that potential impacts are managed effectively. We would welcome clarity in the draft Management Plan that notes the disturbance risks and makes identification training for the geese a key element of the toolbox talks for staff working in that area at the key times.</p>	<p>The pre-construction works (e.g. surveys) referred to in paragraph 6.5.1.40 that could take place during the winter are considered 'low key' as they will be spatially and temporally localised within the cable corridor. The numbers of people and equipment, and movement of those people and equipment, will also be limited. Therefore, pre-construction works have been categorised as low key with respect to potential disturbance of PFG and will be limited in impact. The inclusion of fencing works as an example in this section was in error and will be removed in the next iteration of the Outline CoCP, as this would be an activity moving along the whole corridor and therefore has a potentially greater impact.</p> <p>The 'low key' construction works referred to in paragraph 6.5.1.40 that could take place during the winter, will be spatially localised at specific points, between 750m and 2500m apart depending on cable lengths chosen during detailed design. Works will be undertaken sequentially at individual or a pair of adjacent specific points by any one construction team working along the cable corridor. The equipment will in consequence be localised temporally and spatially within the cable corridor. Therefore, combined with the nature of the works (i.e. undertaking activities including HDD works, cable jointing or pulling cables through ducts), the works referred to in paragraph 6.5.1.40 are considered as being low key and will be limited in impact.</p> <p>RSPB considers that training of all staff working within the Zone of Influence (Zol) to identify pink-footed geese is required. To address this, the Applicant will include in paragraph F.5.3.1 of the Outline Pink-Footed Goose Management Plan, the following additional measure to limit disturbance during works:</p> <ul style="list-style-type: none"> At site induction, all personnel will be trained to identify flocks of grey goose species, which includes pink-footed geese, and make the right decisions via the toolbox talks so as to help ensure that potential impacts

Interested Party Written Representation	Applicant's Response
	are managed effectively.
<p>The RSPB welcome the detail that has been provided as well as the decision tree which we consider will be a useful aid, particularly when coupled with the suggestion for identification training as part of the toolbox talks. The RSPB has concerns about the stage after Decision 5 as we consider that the proportion of the area should be reduced from the half of the available area of post-harvest sugar beet within the zone of influence that is currently proposed: we consider that a quarter would be a more appropriate amount.</p>	<p>The mitigation trigger at Decision 5 was set at half the available area of post-harvest sugar beet within the Zone of Influence (landfall to the village of Hempsted) based on ornithologist professional judgement. PFG have a foraging range of 20km, of which they are not using the full extent due to the resource abundance of North Norfolk. Abundant sugar beet resource was recorded within and outside the cable corridor in this foraging range, which makes geese less dependent on the resources specifically within the ZoI. Therefore, if there is less than half sugar beet coverage within the ZoI, this would represent less than a quarter of the area where the cable corridor and foraging range overlap, which reduces the likely disturbance to an acceptable level.</p>

Marine Management Organisation Written Representation (REP5-029)

Summary

The Marine Management Organisation's (MMO) submission at Deadline 5 is focused on the following topics:

- The Appeal Process
- Outstanding issues on the dDCO and dDMLs submitted at Deadline 4.
- In Principle Monitoring Plan
- Outstanding Environmental Matters;
 - Benthic Ecology;
 - Fish and Shellfish Ecology; and
 - Underwater noise modelling and Fish Ecology

Response

The Applicant notes that the MMO is reviewing documents provided by the Applicant (such as the updated IPMP and Herring spawning Clarification note) and will await further feedback at Deadline 6. Responses regarding requests to DCO/DML wording are detailed in the below table and shown in tracked changes in the latest version of the DCO as submitted in Applicant's response to DL6.

Interested Party Written Representation	Applicant's Response
<p>The MMO welcomes the design specifications within the Markham's Triangle proposed Marine Conservation Zone (pMCZ) in schedule 11. The MMO recommend that similar information should be provided for the Special Areas of Conservations (SAC) within schedule 12.</p>	<p>The Applicant has listed the design specifications for Markham's Triangle rMCZ within the DCO, due to nature of infrastructure (associated with the array area) in the maximum design scenario within that designated site. For the designated sites within the offshore cable corridor (Cromer Shoal MCZ, Markham's , it is only the cable lengths and cable protection volumes that would be listed. The Applicant therefore advocates that this should be captured within the outline Cable Specification and Installation Plan (CSIP) (and the sandwave and cable protection plans within it) which is secured under the DCO. Further, the CSIP would not cover</p>

Interested Party Written Representation	Applicant's Response
	all the infrastructure going into MT rMCZ, as it does for the other designated sites.
Furthermore, it is the MMO's understanding that works authorised under schedule 12 do not fall within the Markham's Triangle and its reference can be removed from schedule 12.	The Applicant has included Markham's Triangle MCZ within schedule 12 in the eventuality that a sub-station is built within that designated site.
<p><i>2.2.1 Condition 9 – Amendments and Variations to the DML</i></p> <p>The MMO recommend the condition wording is amended to remove the phrase 'or that other person that the subject matter of the agreement sought' from the condition. The MMO is unclear as to who this phrase makes a reference to and would like to emphasise that, as the regulator of any granted DML, it is only in the power of the MMO to grant non-material amendments or variations to the DMLs. As such, the MMO recommend that this phrase should be removed to avoid confusion.</p>	The Applicant acknowledges this and has updated the DMLs to this effect.
<p><i>2.2.3 Part 2 (13) (1) (h) (ii) (page 148) – Pre – construction plans and documentations</i></p> <p>The MMO recommend the condition should be updated to make it explicit that any monitoring proposals must be submitted within the monitoring timeframes and not the pre-construction timeframes.</p>	The Applicant acknowledges this and has updated the DMLs to refer to conditions 18 and 19.