

**By Email Only**

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24 May 2019

Dear Sirs

**The Thanet Extension Offshore Wind Farm - Material Change Consultation  
Response by the Port of London Authority and Estuary Services Limited**

We act for the Port of London Authority ("the PLA") and Estuary Services Limited ("ESL") in relation to their ongoing participation in the Examination of Vattenfall Wind Power Ltd's ("the Applicant") application for an extension to the Thanet Offshore Wind Farm ("the Application").

By letters dated 25 April 2019, the PLA and ESL were notified of the Applicant's intention to consult on a material change to the Application. The Applicant had produced a package of documents ("the Consultation Documents") in relation to the amendment which was to introduce a Structures Exclusion Zone ("SEZ") within the Order Limits. This letter and the accompanying response document provide the response of both the PLA and ESL to that material change and highlight particular elements of the Consultation Documents which they consider require comment.

As the PLA and ESL have set out in detail during the course of the Examination, their view is that the most appropriate way to secure the continued safety of navigation would be to reduce the red line boundary of the western extent of the proposed scheme. The PLA and ESL acknowledge that a SEZ could potentially achieve the same effect, if the SEZ was sufficiently widely drawn in terms of geographic scope, duration of the exclusion, and structures excluded. The SEZ should ensure that, with the exception of such cables as are necessary to provide a connection to the extended wind farm – no part of the scheme can be constructed, maintained, operated or

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decommissioned within the SEZ. The SEZ as currently proposed does not achieve that so, if the Order is made in the form currently proposed, the PLA and ESL will remain concerned about the safety to navigation and the continued viability of their operations to the west of the existing wind farm

Yours faithfully



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**INFRASTRUCTURE PLANNING**  
**THE INFRASTRUCTURE PLANNING (EXAMINATIONS PROCEDURE) RULES 2010**  
**THE THANET EXTENSION OFFSHORE WIND FARM ORDER**

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**Response to the Applicant's Consultation on a Material Change to the Application submitted on behalf of the Port of London Authority and Estuary Services Limited**

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Consultation document	Document reference	Response summary/extract	PLA/ESL comments
<p>Document 1</p> <p>Appendix 14 to the Deadline 4 Submission – Structures Exclusion Zone Explanatory Report</p>	<p>Section 3.3</p>	<p>‘Sea Room’ and ‘Buffers’</p>	<p>The PLA and ESL agree with the position of the Applicant that sea room should be a calculation of operational area (be it on passage or pilot transfer) together with a buffer.</p>
	<p>Section 3.4, paras 21-23</p>	<p>Vessel assumptions</p>	<p>Figure 38 in the NRA (Section 5.6 <i>Seasonality</i>) summarises the daily transit rate through Traffic Gate E, which summarises a daily transit rate of between 32 (winter) and 45 (summer) transits per day (based on the results of the traffic survey). The Applicant has stated in their response to ISH8 action point 12 (Appendix 7 to deadline 5/para 88) that Gate E is used to analyse vessels per day on the inshore route. Gate E is not assessed in the NRAA per se; the transit analysis in the NRAA covers the area between Elbow Buoy to SEZ and NE Spit Buoy to SEZ. It would appear that the overall traffic per day figure for the entire inshore route is derived from these two positions. The PLA and ESL do not think this is an accurate reflection of vessels per day on the inshore route, as carrying out an analysis from these two positions alone would not in their experience be representative of the traffic in the area as a whole.</p> <p>The Applicant suggests that they think it is unlikely that the frequency of larger vessels using the inshore route will increase given historical evidence. However in the NRAA (para 121) they acknowledge a trend toward vessel size increasing. The PLA and ESL not consider it a a fair assumption, based on historical use,</p>

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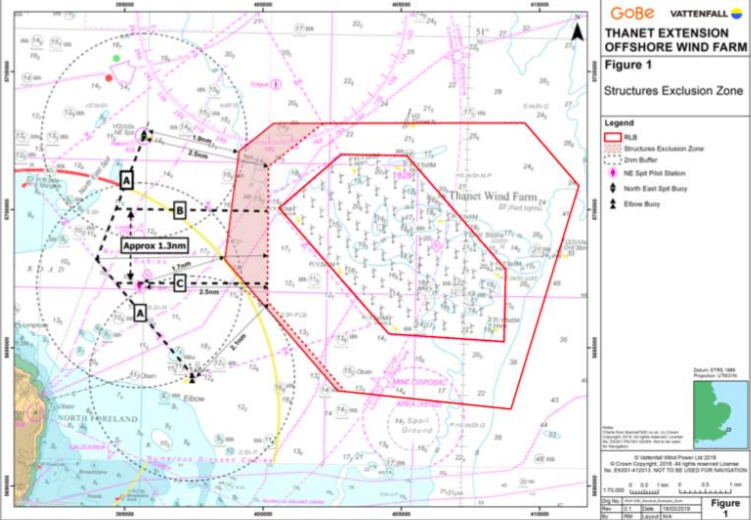
Consultation document	Document reference	Response summary/extract	PLA/ESL comments
			<p>that the growing number of larger vessels will still only use the inshore route with the same frequency.</p> <p>The PLA and ESL would agree that factors such as a reduction in sea room on the inshore route, as a result of the extended wind farm, could create a restriction when assessing the routes suitability for larger vessels.</p>
	Section 4.3	Sea room requirements for vessels on passage	<p>The Applicant concludes, based on the MSP guidance, that it has adopted a highly precautionary approach by allowing for four 333m vessels. However, the PLA and ESL consider that a fuller adoption of the MSP guidance would be necessary in order for the approach to be a precautionary approach.</p> <p>The Applicant should included the recommended distance for a safe turn to starboard in accordance with the COLREGs; it did not. If it had, that would give a 'baseline' distance/sea room for passage of 2.72nm on the inshore route (as demonstrated in the PLA and ESL's deadline 4c submission/EN10084/2.1.3 and 2.1.4). It would then be precautionary to attempt to 'factor in' other navigational, and therefore sea room, requirements, such as the fact that the route has within it a high volume of crossing traffic, a pilot station, the North East Spit bank and the existing TOW itself, as well as an anchorage to the west.</p>
	Section 4.4, paras 36-37	Sea room requirements for pilot transfer/	Figure 3 indicates the location of a pilot launch when operating at a speed of 10 knots or less. We have concerns with the methodology of using launch speed density/area to reflect

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		boarding operations	<p>boarding density. There is a significant area of low density to the east of the North Foreland, in very close proximity to the shore that, under no circumstances, would be used for boarding and landing.</p> <p>There is no indication of how the 6441 boarding and landing acts by ESL in this area 2018 have been divided across the density map (figure 2), and it is not clear what percentage or numerical value is represented by 'high/medium/low'. Therefore it is very difficult to understand the number of vessels represented by 1% and 3% in Table 10.</p> <p>In addition, the density map is based on a launch speed of 10 knots and all speeds below this, ESL board and land pilots between 5 - 6 knots. As recognised by the applicant, there are many reasons a pilot launch will be travelling at 10 knots or less e.g. scheduling reasons (waiting for vessels) or poor met ocean conditions.</p> <p>ESL has always maintained a requirement for 1nm as a buffer in addition to a 2nm working area whereas the Applicant refers to "a 0.5nm buffer" which "has been allocated to declared safe sea room."</p>
	Section 6.2, paras 47-50	Sea room at NE Spit Pilot Boarding Diamond, basis of amendment	The area of the SEZ that leaves 3nm or above is a reduced strip less than 1.3nm 'deep' (as demonstrated in <i>Figure 1</i> of our deadline 4c submission). As shown in

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			<p>Figure 1, the width of 2nm + 1nm buffer has become a narrow 'column' which is approximately 1.3nm deep. In order to utilise this area ESL would have to bring a higher number of vessels into a smaller boarding ground which would lead to appropriate lees being compromised. There is not a clear 2nm with 1nm buffer to the north of line B until east of the North East Spit Buoy, which itself is 3nm north of the inner boarding position. South of line C in Figure 1, there is not an area of 2nm with 1nm buffer until approximately 3nm south east of the Elbow Buoy.</p>

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			 <p>The 'additional shallow draft pilot transfer area' demonstrated in figure 5 would not be used for inward bound (taking a pilot) traffic unless in exceptional circumstances (e.g. Naval vessels will sometimes use this area in order to keep away from traffic to the south). Boarding in this area is generally considered too close to the approach that vessels make to the Princes Channel. It is good practice that the pilot is on board, in control and situationally aware before the vessel is in close proximity to the East Margate Buoy.</p> <p>Figure 6 indicates a 'deep draught pilot transfer area', however there is no specific deep draft vessel transfer area at the inner</p>



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			<p>boarding station. Deeper draft vessels will be given a boarding position on the inshore route if possible depending on MetOcean conditions, state of tide and other traffic. This will typically be a position at least 1 nm east of the inner boarding position in the deeper water.</p>
	Section 7, para 54	Sea room between Elbow Buoy and SEZ	<p>The sea room in between Elbow Buoy and the SEZ is still a navigationally complex area and the definition of 'least' complex is misleading. The Elbow buoy area is a vital part of ESL's area of operation that allows flexibility when trying to operate in adverse weather conditions as well as being incorporated into run planning during boarding and landing peak periods. It is important for the safety of navigation in adverse weather, and to enabling flexibility in the planning of operations during such conditions. 238 vessels were served by ESL in the area of the Elbow in 2018.</p> <p>One third of the boardings and landings in this area took place during or adjacent to periods when ESL was operating a restricted service and the Sunk pilot station was either off station or restricted. The remaining two thirds of vessels using the area of the Elbow would have done so as a result either of the MetOcean conditions, or due to traffic considerations. Operations which took place when the Sunk pilot station was off station or restricted almost certainly took place in the vicinity of the Elbow as a direct result of adverse sea conditions which restricted or prohibited ESL's service and the use of the Sunk pilot station. If the Elbow had not been available as the reserve option for pilotage services, it is likely that ESL would not have been able to offer pilotage</p>

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			<p>services at these times. This would have caused significant disruption to these vessels, which included container ships for London Gateway and Port of Tilbury and tankers for Grays, Shell, Navigator, West Thurrock and Oikos oil terminals. It would also have had a knock-on impact to subsequent vessels due at these berths.</p> <p>If the proposed development goes ahead, the use of the Elbow will be restricted or inhibited, which will increase the times that pilotage services are unavailable and, in turn, decrease the commercial attractiveness of these ports and terminals. The effect of that would be to reduce the employment and economic opportunities offered by the pilotage services, ports and terminals.</p>
	Section 8	Sea room between Tongue Pilot Station and SEZ	<p>ESL and the PLA still consider that the Tongue DWD diamond will have to be relocated further NNE because the proposed 1.2nm sea room, with no buffer, will be too close to the extended wind farm boundary. The PLA and ESL also maintain their position that this station could become busier due to the potential for traffic to divert around the eastern side of the wind farm and avoid the inshore route. This would be even more likely for larger vessels. An increase in traffic at the Tongue Deep Water Diamond, particularly larger vessels, would mean the boarding position would have to be moved to a more precautionary site, which the PLA and ESL believe would need to be approximately 2.4nm NNE of its current position. This will keep boarding and landing at a safe distance from the Tongue anchorage and the northern boundary of the extension, but will inevitably increase passage</p>

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			time and running costs to ESL and pilotage.
	Section 9	Conclusions	The PLA and ESL have concerns over the approach the Applicant has taken when considering sea room requirements. They do not consider that the assessment captures the use and importance of the route as a whole. Assessing individual points along the route (Elbow to SEZ/NE Spit to SEZ/Inner boarding area) has not captured the importance that each area has to the next. As stated in our deadline 4C submissions (EN010084/para 2) the PLA and ESL do not consider that the MSP guidance has been fully reviewed when assessing sea room particularly with regard to suitable safety buffers. Using The MSP guidance would result in a route/lane (including safety buffer) of 5051m or 2.72nm as a baseline assumption, it is then suggested that additional factors are taken into account such as the area being used for boarding and landing, traffic crossing points. A precautionary approach would be to follow the MSP guidance for route width and safety buffer not, as the Applicant has done, follow purely the guidance for the route width.
Document 2 (Review of the ES and Report to Inform Appropriate Assessment in relation to the Structures Exclusion Zone) and Document 3 (Revised Offshore Works Plan)			The PLA and ESL do not have any additional observations with regards to these documents.
Document 4	Para 22	Consideration of data	In para 22 the Applicant refers to two tranches of AIS data (Dec-2016 to Feb-2017 and Mar-2017 to Feb-2018) which were used

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Addendum to Navigation Risk Assessment (and associated annexes)		sources for NRAA	for the pilotage and collision risk modelling studies. However, the original NRA states that collision Risk Modelling was undertaken using one month's AIS data from December 2016. In the PLA and ESL's view, this is not generally representative of traffic, as numerous vessels (e.g. leisure craft) do not carry AIS equipment, and December is one of the quietest months for vessel activity, particularly for boarding and landing and therefore activity around the inner boarding position. Collision risk modelling has not be re-evaluated for the NRAA, presumably due to time constraints. The underlying data on which they NRAA is produced is therefore flawed.
	Paras 65-66	Consideration of navigational use of the Elbow buoy area	<p>These paragraphs illustrate that the Applicant has continued to underestimate the fact that this is an important area of operation for boarding and landing especially during periods of adverse MetOcean conditions, when other areas may be unusable.</p> <p>The Applicant's material change does not address the PLA and ESL's concerns about sea room at this area. ESL and the PLA would like to repeat the concerns raised at previous DCO hearings, in particular ISH8, that simply because there are fewer pilotage transfers in the area at the Elbow buoy, this area cannot be treated as less significant in terms of the sea room required.</p>
	Para 70	"As a result, a precautionary approach to defining the SEZ has been taken, considering the relative complexity and quantity of marine	ESL and the PLA do not consider that this is a precautionary approach. The requested sea-room of 2 miles plus 1 mile buffer is not based on the number of vessels using the boarding and landing area. The applicant has assumed either that less sea-room is required for boarding and landing in this area, or that boarding and landing will no longer take place here. The Elbow is

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		activities in different areas of the inshore route.”	an important area for boarding and landing, which is essential to keeping the port open to all traffic during adverse weather.
	Para 71	“The SEZ provides for the requested 2nm + 1nm sea room in the area of highest density of pilot transfers which accounts for the complexity of traffic and adverse conditions.”	The loss of flexibility of being able to use alternative areas to the north and south east of the inner boarding position means that during complex traffic situations and adverse conditions boarding and landing will be delayed, or will no longer take place. The SEZ has not adequately addressed the PLA and ESL’s navigational safety concerns with reference to pilot boarding and landing. The reduction in ability to utilise these area fully will significantly impact of the pilotage services resilience.
	Para 73	“Due to the introduction of the SEZ north of the Elbow buoy, the restriction between it and the SEZ, where the majority of traffic is transiting through, is an isolated point between much wider sea room to the north and south. The line of sight for vessels entering the inshore route from the south has been vastly improved as a result of the SEZ meaning there is not the same ‘channelisation’ of	<p>The Elbow is central to ESL’s boarding and landing activities in adverse weather conditions; the proposed extension of the wind farm will have a detrimental impact on ESL’s ability to provide pilotage operations in such conditions.</p> <p>Furthermore, although this area may remain open for vessels, the narrowing of the channel is likely to make it unattractive to larger vessels for transit boarding and landing. In the PLA and ESL’s experience, they would expect masters of larger ships, when faced with the narrower channel created by the proposed extension of the wind farm, to avoid the area rather than risk transiting through a channel that is narrower and busier than it is currently. The Elbow buoy area has significant operational value to ESL, as this area is fully incorporated into its working practices particularly during poor met ocean conditions. It can be, and has been, the case that this area is the only workable area sea room</p>

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		this area of sea and it remains fully open for the largest vessels to transit.”	available.
	Para 111	Consideration of use of HAZMAN software	The Department for Transport’s Port Marine Safety Code referenced in this paragraph does not mandate the use of HAZMAN software. Although the PLA acknowledges that it has in the past used HAZMAN software for risk assessments, industry experience has shown that it is not necessarily the most accurate method to assess future risk. The PLA is currently in the process of replacing its use of the HAZMAN software in favour of a system which is less complicated and allows for a more qualitative approach, in order to provide a truer and more reliable assessment of risk.
	Para 121	Consideration of cargo tonnage data	<p>The ‘All Trade’ figures for 2018 (including intra-port information) indicate that there has been a slight downward trend in ship arrivals over 2018 in particular.</p> <p>However, the ships that have been coming into the Port are getting bigger and so there has not been a downward shift in tonnage etc. coming into the Port. In addition, for the first 3 months of 2019 the PLA noted an 11% rise in the number of pilotage acts undertaken when compared with the same period in 2018, indicating an upward trend in vessel movements. ESL served 622 vessels over 199.9 loa in 2016 and 757 in 2018, an increase of approximately 21%.</p>

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	Para 123	Consideration of the “MMO1127: Futures analysis for the north east, north west, south east and south west marine plan areas” report, June 2017	In the MMO 1127 future analysis document table 85 (Section 13.4/page 307) under the local stewardship scenario it suggests 1% annual growth in tonnage between 2017 and 2036, it also assumes slower growth for international shipping but an increase in smaller coastal vessels and windfarm maintenance vessels with regional shipping routes likely to show a larger increase in density. The MMO future analysis would not appear to suggest the increase in freight will be handled by fewer but larger ships, it actually appears to support an increase in traffic on localised regional routes (such as the inshore route) and suggests an increase in smaller regional ports rate of growth.
	Para 124	Consideration of the trends in recreational and fishing vessel activity in the area	<p>The PLA and ESL do not agree with a long term projection of static/negative growth in the recreational sector. The RYA water sports participation survey 2017 does suggest a relatively small amount of growth in vessel ownership however it also recognises the South East as one of the highest use areas. It seems a broad assumption to relate national recreational boat ownership with localised recreational activity. Being an RYA survey it is also, we believe, based only on UK based survey participants and so presents a limited representation of views. The inshore route is frequently used by vessels crossing from the channel from Holland and Belgium who would not be considered by a study of domestic recreational sea users.</p> <p>It is also noted that NRA Section 6.3 (Summary of Future Traffic Profile) suggests a “steady increase” in recreational and fishing vessels although it is unclear if this is included in the 10% overall uplift by the applicant.</p>

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			<p>The MMO future analysis document (section 11.4/table 67/page 228) also suggests potential growth for the fishing industry in the south east with regard to stock recovery over 20 years and the local stewardship scenario places emphasis on this growth having a positive impact on the 10m (and under) fleet specifically. The vast majority of fishing vessels operating around the inshore route and TOW are under 10m. We would suggest the national fleet numbers do not necessarily reflect regional fishing activity.</p>
	Para 125	Consideration of likely trend in Windfarm Service Vessels (WSVs)	<p>The PLA and ESL consider that the estimate for WFSV traffic increase is highly conservative given the relative youth of the offshore wind industry.</p> <p>Recently the PLA and ESL have seen the London Array windfarm increase from 4 on site WFSVs to 18 because of a summer maintenance programme. This has included work at night which was not previously the case. Although currently TOW does not work at night, this could change in the future.</p> <p>The PLA and ESL also note that in the NRA/Section 7.3.2/Results (collision modelling) it tests a scenario of WFSVs doubling on site and not remaining static. The MMO future analysis document (section 13.4/table 85/page 307/308) suggests an increase in wind farm maintenance vessels under the Nature@Work and Local Stewardship categories.</p> <p>It is difficult to understand what the predicted increase in WFSVs would be for the construction period (Annex D to Appendix 31 of</p>



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			<p>Deadline 5/page 17). If WFSVs are provisionally incorporated within commissioning vessels, this would mean an estimate of 7 vessels making a total of 480 trips over a 3 year period. This would give an average return of 160 trips per year across, potentially, 7 vessels. This appears very low given our experience of traffic volume during construction or high maintenance periods for offshore wind farms. The PLA and ESL would like to seek clarification from the applicant on this point.</p>
	<p>Para 142</p>	<p>List of additional risk controls assessed to determine the residual of risk level</p>	<p>Enhanced Promulgation of information:</p> <p>The PLA and ESL believe this constitutes embedded mitigation. The issuing of NTMs is already in place, and they are still unsure of how this would be enhanced. It is also difficult to see the advantage of issuing the WFSVs passage plans as they will often take the same track toward the existing site. The PLA and ESL are unsure of how realistic it is to expect the applicants WFSVs to be able to adhere to the timings published in a passage plan given the need, we assume, for onsite vessels to have flexibility. It is also difficult to see how NTMs can reduce the issues of reduced sea room, the local operators will already be aware of the reduction in sea room and will be trying to operate within it.</p> <p>Shipping and Navigation Liaison Group (“SaNL Group”):</p> <p>Whilst the final structure of this group is to be determined and as such the PLA and ESL appreciate this is only an outline of the groups role in making recommendations for mitigation, they are</p>

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			<p>still unsure of its overall effectiveness in helping reduce the issues caused by a physical reduction in sea room. Whilst it is agreed that a group of this sort is a good idea, the PLA and ESL do not think that it should be considered as a form of mitigation itself. Instead it should be viewed only as a tool for assessing issues and then trying to establish further mitigation in the future. ESL and the PLA also believe that any shipping related issues identified on the inshore route would result in third party management either by ESL, the PLA, MCA, Trinity House. Although the group could theoretically advise on what mitigation could be introduced, it should not be regarded as mitigation in and of itself.</p> <p>Post Consent Monitoring:</p> <p>This could be a good information tool to inform the SaNL Group but it will be a retrospective tool for traffic analysis. Again, the PLA and ESL are unsure how effective this would be, particularly as it is assumed that this will probably be AIS based and, therefore, not cover all vessels. The smaller more at risk vessels are less likely to have AIS. The PLA and ESL do not believe that this can be considered as mitigation for reduced sea room.</p> <p>Aids to Navigation/Buoyage:</p> <p>The PLA and ESL would consider aids to navigation to be embedded mitigation because the two main buoys (Thanet North and Drill stone buoy are already in place) and will only require moving. Any additional buoyage would, it is assumed, be related to the construction phase and whilst aiding navigation will likely</p>

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			serve to further reduce sea room on the inshore route.
	Para 143	Consideration of the scoring of risk controls	<p>Currently there have been no discussions regarding risk control effectiveness. The current review of risk control effectiveness is based upon the Applicant's weighting and the PLA's 2015 risk assessment (which was not reviewing the area with reduced sea room with TEOW in place).</p> <p>Whilst noting the benefit of liaison between relevant authorities and stakeholders the PLA and ESL do not agree with the risk mitigation scores, including that which has been attributed to the Shipping and Navigation Liaison Group. It has been given an effectiveness score of 30% against the likelihood of collisions and contacts. However, it is the implementation of any additional mitigation identified and implemented that will reduce the risk, rather than the existence of the Group itself, as explored above.</p>
	Para 145	Consideration of cost benefit analysis	The PLA and ESL have not seen a full cost benefit analysis and do not believe that one was contained in the original NRA
	Para 146	Consideration of results of hazard workshop	The PLA and ESL recognise that their concerns regarding broad groupings of vessels types in the NRA were reviewed and partially addressed. However after the workshop they still have concerns about the breakdown of hazard types. For example, a class 1 or 2 vessel in collision with any other vessel, rather than with another specific vessel type, remains too broad a category. In the original NRA the hazards logs were more specific but an awareness of the

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			<p>time pressures at the workshop lead to a broader approach. The PLA and ESL believed there would be a final presentation after the workshop which would be similar to that in the original NRA. It has become clear that the Applicant does not intend to produce such a presentation.</p> <p>It is noted that the scores have been updated following the changes made in response to the concerns raised by the PLA, ESL and other IPs, but the scores are still based on a different methodology to that used in the original NRA. For example, the methodology used at the workshop to assess consequence was not the same as that used for the original NRA. In the original NRA each hazard was scored for the total consequence. e.g. for a collision between two vessels the consequence was scored for the combined consequence to both vessels. However, at the workshop on 29th March the hazards were only scored for the consequence to one vessel. When assessing the likelihood of a collision for a Class 1 or 2 vessel, the most likely and worst credible consequences were assessed. The consequence to the Class 1 or 2 vessel was scored, but the score did not take into consideration the consequence to the vessel with which it collided.</p> <p>It was explained to workshop participants that the consequence to the other vessel would be scored in a separate hazard for the other vessel. However, this leads to an underscoring of the risk. For a collision between a Class 1 or 2 vessel and a fishing vessel the consequence to the Class 1 vessel is scored in one hazard and the consequence to the fishing vessel is scored in a separate hazard. Therefore the total consequence of the collision is split between two risk scores, giving a lower score for each than if they</p>

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			had been combined.
	Paras 152-154	Consideration of outcomes of hazard workshop	<p>The PLA and ESL have remaining concerns about the collision risk assessment conclusions that the Applicant has drawn from the hazard workshop.</p> <p>In the original NRA the baseline collision likelihood was 1 in 6 years (NRA/section 7.3.2/page 80), within 10nm of the development. It is difficult to understand how the original NRA had an overall analysis of all collisions resulting in a baseline of 1 in 6 reduced to 1 in 4 (post collision modelling). The NRAA does not present the overall collision rate, just the rate for commercial vessels. This makes it difficult for the PLA and ESL to make an overall assessment of the effectiveness of the SEZ in dealing with their concerns about navigational safety.</p> <p>The risk assessment scores cannot be compared, not only because of the different hazard types, but because of the different methodologies utilised. The PLA 2015 risk assessment was scored on the overall consequences of a collision to both vessels, whereas the NRAA risk assessment was only scored for the outcome to one vessel.</p>
	Paras 158-160	Consideration of residual assessment of risk	These hazards are at the low end of ALARP as defined in the NRAA, but the PLA and ESL do not consider the collision risks to be at the low end of ALARP, due to the way in which they have

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			been assessed and scored.
	Para 168	“The TEOW, depending on final turbine layout may require the relocation of the Tongue Pilot Diamond slightly further north (noting ESL pilot boarding locations as presented in Section 2.)”	The PLA and ESL consider that the Tongue Pilot Diamond <u>will</u> need to be relocated. However, the Applicant does not appear to have given consideration to an alternative position and the PLA and ESL have not been consulted in this regard. Further, the effects of relocation have not been risk assessed.
	Para 184	Consideration of risk controls	Paragraph 184 of the NRAA appears to undermine the principle of the SaNL Group. The Applicant appears to be declaring that the PLA/ESL are the primary navigation users so therefore any navigational issues should be resolved by them and the MCA. This would seem to suggest that the NRAA’s conclusion that all risks have been reduced to ALARP means that any future navigational issues around TEOW are not as a result of the wind farm. If that was the intended meaning, the PLA and ESL cannot agree to this.
Document 5  An addendum to the ES assessing the SEZ proposal			The PLA and ESL do not have any additional observations with regards to this document.

Consultation document	Document reference	Response summary/extract	PLA/ESL comments
<p>Document 6</p> <p>Review of Application Documents with regards to the Structures Exclusion Zone</p>			<p>The PLA and ESL do not have any additional observations with regards to this document.</p>
<p>Document 7</p> <p>The consequences of the SEZ on assessment of the Outer Thames Estuary and Flamborough and Filey Coast SPAs</p>			<p>The PLA and ESL do not have any additional observations with regards to this document.</p>
<p>Document 8</p> <p>Implications of the SEZ – Seascape, Landscape and Visual Effects</p>			<p>The PLA and ESL do not have any additional observations with regards to this document.</p>
<p>Document 9</p> <p>Implications of the SEZ – Seascape, Landscape and Visual Effects – Wirelines</p>			<p>The PLA and ESL do not have any additional observations with regards to this document.</p>
<p>Document 10</p>			<p>The PLA and ESL do not have any additional observations with</p>

Consultation document	Document reference	Response summary/extract	PLA/ESL comments
Structure Exclusion Zone, Onshore Heritage			regards to this document.
Document 11 Assessment of the implications of the implementation of the Structures Exclusion Zone in relation to commercial fisheries			The PLA and ESL do not have any additional observations with regards to this document.
Document 12 Appendix 2 at Deadline 4C: Shipping & Navigation – Statement of Evidence	Paras 26-28	Consideration of seasonality of baseline data used in NRA	The additional data gathered since ISH5, was in the form of AIS or Succorfish data, which would not capture the increase in recreational vessels that occurs in the peak summer period of August. It therefore does not address the previous concerns expressed by the PLA and ESL in reference to seasonality.
	Paras 33-34	Consideration of sea room distances and buffer distances	The 1 mile buffer requested by ESL and the PLA is in relation to boarding and landing operations specifically. Only having the 2 miles plus one mile buffer at the NE Spit area does not allow for the flexibility required by ESL to undertake transfers in the full range of MetOcean and traffic conditions that they would normally expect to encounter. The introduction of the SEZ, therefore, does not adequately address the sea room concerns of the PLA and ESL.



Consultation document	Document reference	Response summary/extract	PLA/ESL comments
	Para 36	Consideration of the application of MGN543 in calculating sea room	<p>The maximum safe sea-room has been calculated by the Applicant based on a standard turning circle with an allowance for the pilot transfer time. This does not make any allowance for non-standard situations which may occur as a result of traffic conflicts of emergency scenarios, which is why the additional buffer zone of 1 mile is critical.</p>
	Paras 56-60	Consideration of the Pilotage Simulation	<p>The PLA and ESL do not consider the simulator study to be robust enough to prove feasibility. The study did not make any assessments beyond average working conditions (no adverse MetOcean conditions or emergency scenarios) and with no rule violations (the 'human factor' was not assessed). The total of 14 runs is not enough if the study is to provide sufficient weight to the conclusion that pilot boarding and landing is still feasible at the inner boarding position.</p> <p>There was no post study conversation between ESL and the applicant regarding our feedback. This has led to an assumption that ESL were in full agreement with the conclusions, even though they had not stated this to the applicant. A more detailed response on what ESL and PLA felt should be covered to aid the assessment will be provided in our deadline 6 response to ISH8 action point 20.</p>

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	Paras 61-65	Consideration of collision risk modelling	<p>ESL and the PLA do not believe that a methodology used to assess river traffic by the PLA was the right approach for an offshore windfarm, and the Applicant did not discuss CRM with ESL or PLA before the NRA was published.</p> <p>The PLA and ESL do not agree that the figure presented in the CRM does not allow for human intervention. In the NRA (Section 7.3.1/Methodology) it states that a baseline assessment area was created for comparison, this baseline 'evidenced' an encounter correction factor of a third. Therefore a correction factor of a 0.33 has already been taken into account.</p> <p>The concerns of the PLA and ESL in relation to the CRM are not only in relation to the results. There is further concern that the CRM was based on one month's data for December in 2016, and that month was the lowest in a 12 month period in terms of the number of vessels using the NE Spit pilot stations; December is a quieter traffic month for the inner boarding position.</p> <p>CRM is an AIS based assessment which does not factor in the non-AIS vessels for assessment. There is a significant difference between the winter and summer traffic periods for non-AIS vessels, not captured by CRM.</p> <p>The PLA and ESL do not consider it is appropriate to assume the CRM results will automatically improve due to the introduction of the SEZ. Especially as there have been no discussions with IPs regarding any of the baseline assumptions underlying the CRM</p>

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			study (i.e. vessel domain shape and size, time period of study, nature of comparative baseline study area, how vessel track alterations were made during study for example).
	Addendum NRA and Risk Workshop		<p>The PLA and ESL's opinion on the hazard workshop remains unchanged. The overall assessment was very time sensitive. There was not sufficient time to try and undertake such a detailed piece of work. We are in agreement with the MCA's submission at deadline 5 (ISH8 Action Point 10 response) that there should have been a thorough workshop conducted prior to application.</p> <p>The preferred approach of hazard identification by some IPs (e.g. to be assessing a hazard of a class 1 vessel in collision with another class 1 vessel, for example) was replaced by a broader, and more difficult to quantify category (e.g. a class 1 vessel in collision with <b>any other vessel</b>), the PLA and ESL believe that this was primarily introduced because of the reduced time factor.</p> <p>Four hazards were discussed during the workshop but the PLA and ESL do not consider that this resulted in a greater understanding of the scoring process, overall approach, or how the conclusion of ALARP was reached.</p>
	Para 110	Consideration of post consent monitoring	The PLA and ESL do not understand the Applicant's position that they do not regard post consent monitoring as necessary. If this is the case then the PLA and ESL consider that the Applicant should

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			not attribute weight to it as mitigation because they only consider it to be an assessment of NRA validation.
	Para 115	Consideration of pilot boarding	The PLA and ESL note the Applicant's suggestion that ESL could utilise the area to the north/north east of the inner NE Spit Pilot 'diamond' more if they have concerns regarding boarding ground congestion. ESL already incorporates a significant amount of the sea room to the north east of the inner boarding position for their operation. ESL and the PLA would also suggest that this would push ESL towards operating in an area where the sea room is reduced to below the 2nm + 1nm that they require. The applicant's recommendation appears to be that ESL will handle more vessels, in particular larger vessels, in an area that is smaller than their basic requirement, which the PLA and ESL do not consider is a valid recommendation.
	Paras 117-123	Consideration of "other matters"	<p>The inshore route was used by the vessels listed in Table 2 (page 33) due to poor weather. All 7 of these voyages took place during periods of poor sea conditions at which time the Sunk Pilot Station was off-station. The use of inshore route provided sufficient shelter to enable boarding and landing operations to continue and therefore for the Ports to remain open to all traffic. For 5 of the voyages ESL was operating a restricted service so these vessels would not have been able to go round the outside and use the Tongue or dip down to a position to the north of the NE Spit diamond, as pilot boarding and landing could not take place there at the time.</p> <p>Between December 2017 and November 2018 the NE Spit (including Tongue, NE Goodwin etc) was off station on 17</p>

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			<p>separate calendar days, which equates to a total of 7 days, based on the total number of hours/24. During the same period the Sunk was off station on 35 separate days, which equates to 20 days based on the total number of hours/24. Even with the inclusion of the SEZ, with the extension in place ESL would lose the flexibility to operate outside of the identified 2 mile circle north of the NE Spit diamond, which they require to continue operations in poor weather, when other boarding and landing areas are no longer viable.</p>

**Winckworth Sherwood LLP**  
**Solicitors and Parliamentary Agents**  
 On behalf of the Port of London Authority and Estuary Services Limited  
 24 May 2019