



The Planning Act 2008

Sizewell C (SZC)

Planning Inspectorate Reference: *EN010012*

Deadline 5 – *23 July 2021*

Written summary of oral case

ISH 7 Biodiversity and Ecology, 15 and 16 July 2021

Issue Specific Hearing 7 Pt1 and Pt2 Biodiversity and Ecology

Agenda Item	East Suffolk Council
<p>1. Introductions</p>	<p>Speakers on behalf of East Suffolk Council (ESC)</p> <p>Andrew Tait QC James Meyer, Ecologist, ESC</p>
<p>2. Terrestrial ecology:</p> <p>a. Duties under ss.28G and 28I of the Wildlife and Countryside Act 1981 and the effects of s.28P</p> <p>b. The Sizewell Marshes SSSI</p> <p style="padding-left: 40px;">I. the SSSI crossing,</p> <p style="padding-left: 40px;">II. fen meadow replacement, mitigation, monitoring and fallback</p> <p style="padding-left: 40px;">III. wet woodland and other flora and fauna by reason of which it is of special interest</p> <p style="padding-left: 40px;">IV. Water level monitoring</p> <p>c. Minsmere – the marsh harrier, including the proposed HRA</p>	<p>a. Duties under ss.28G and 28I of the Wildlife and Countryside Act 1981 and the effects of s.28P ESC defers to Natural England on this matter, as the statutory nature conservation organisation.</p>

<p>Compensatory Measures for the marsh harrier qualifying feature of the Minsmere-Walberswick SPA/Ramsar, and discussion of the proposed CM at Upper Abbey Farm (including proposed wetland habitat as detailed in REP2-119 and proposed management and monitoring measures), together with the Westleton compensatory habitat.</p> <p>d. HRA</p> <p>i. To understand the differences between Interested Parties (IPs) and the Applicant on the Applicant’s conclusion of no adverse effects on integrity (as presented in the Shadow HRA Report and addendums) for the following matters: Disturbance/displacement effects on breeding and non-breeding waterbirds using functionally-linked</p>	<p>b. The Sizewell Marshes SSSI</p> <p>i. SSSI Crossing and habitat fragmentation – ESC’s full position on the SSSI crossing is set out in the LIR [REP1-045] and in our more recent submission in summary form [REP3-060]. Noting the necessary balancing of landscape and ecological considerations, ESC considers that the proposed SSSI crossing shown in the “change five design” is an acceptable compromise. However, there are a number of important design considerations which have not yet been addressed to the satisfaction of the Council, including the final height of the bridge, the adaptive operational provisions and lighting.</p> <p>There remains the potential for the SSSI crossing to result in significant fragmentation impacts on species such polartaxic invertebrates, water vole, otters and bats (the latter three particularly through increased noise and lighting impacts).</p> <p>It is acknowledged that the Applicant has submitted additional lighting modelling at Deadline 3 [REP3-057] and comments on this are provided in our Deadline 5 submission. However, having reviewed this latest information, ESC remains concerned that construction lighting requirements will result in the SSSI Crossing embankments and bridge entrances receiving light spill from the roadway which will mean that an adequate dark corridor in this area cannot be maintained.</p> <p>It is understood that further changes to both the construction phase design of the crossing and its design in the operational phase are being proposed, however these have not yet been submitted to the examination and therefore have not been considered by ESC. It is also unclear how any operational design changes are secured in the draft DCO [REP2-015] as they are not currently referred to in draft Requirement 12C.</p> <p>ESC considers the embankments will provide a potentially important landscaping function within the Suffolk Coast and Heaths AONB, forming part of the balancing exercise undertaken supporting</p>
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<p>land to Minsmere-Walberswick SPA/Ramsar due to noise and visual disturbance</p> <p>II. To understand the differences between IPs and the Applicant on the effects of recreational pressure on European sites and to discuss the monitoring, mitigation and management proposed to conclude no adverse effects on integrity</p> <p>III. Progress on written agreement to maintain access for the RSPB to the southern side of Minsmere Reserve</p> <p>IV. - 'collision risk' -concerns raised by NE re lack of collision risk assessment for new pylons</p> <p>V. Position update on air quality effects due to NOx and acid deposition'</p>	<p>ESC's views as to the acceptability of the SSSI crossing. It has always been understood that there has been a need to balance the optimum crossing structure for wildlife migration and that which could deliver the least landscape and visual impact. The current proposal satisfies the need to achieve acceptable landscape and visual impact whilst also allowing an acceptable degree of wildlife migration potential, subject to the further detailed adjustments that are sought.</p> <p>i. SSSI loss – Loss of SSSI should only be considered acceptable where it has been clearly demonstrated that all relevant planning tests have been met and that the mitigation hierarchy has been followed. ESC considers that the amount of SSSI lost to the Crossing structure could be further reduced through the use of an open span bridge as opposed to the proposed bridge and embankment crossing. However, we acknowledge that the landscape mitigation benefits are greater with the proposed structure compared to a full open span bridge.</p> <p>Concerns remain over the final hydrological impacts of the sheet piling and cut-off wall required for the main platform and SSSI Crossing, however ESC defer to Natural England and the Environment Agency for detailed comments on this matter.</p> <p>ESC: Paras 8.31 – 8.38, 8.39, 8.41 and 8.42 LIR [REP1-045]; SoCG TEO5, TEO6, TEO7, TEO8, TEO9, TEO10, TEO11, TEO12 TEO13, TEO38 to TEO41, TEO60 and TEO61 [REP2-076]; Comments on Deadline 1 Submissions [REP2-173].</p> <p>ii. and iii. SSSI compensation proposals – ESC echo the points made by Natural England and Suffolk Wildlife Trust on the difficulties in recreating fen meadow, in particular M22, habitat which is a very difficult habitat to re-create. The triggering of the compensation fund has not yet been finalised and is subject to ongoing discussion with the Applicant. ESC considers that it would be appropriate to extend the application of the Natural Environment Fund beyond East Suffolk district boundaries in respect of fen meadow contingency sites. However, this Fund is best focussed within the Eastern region so as to keep any compensation habitat as close as possible to</p>
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<ul style="list-style-type: none"> e. Protected species f. Other designated sites g. Ancient woodland, veteran trees and the route of the Two-Village Bypass h. The Sizewell Link Road – mitigation for loss of watercourses, mammal and invertebrate surveys i. Duties under ss. 40 and 41 Natural Environment and Rural Communities Act 2006 j. The position in relation to Letters of no impediment and any Environment Agency comfort letters 	<p>the initially lost habitat. ESC is expecting further surveys to be submitted to the Examining Authority and we will await these before commenting further.</p> <p>ESC acknowledge the work that the Applicant has undertaken to identify suitable sites for the delivery of habitat creation to compensate for the loss of SSSI habitats. However, despite the additional information submitted at Deadline 3, full detailed surveys (including of groundwater) required to demonstrate that the proposed fen meadow/wet woodland compensation sites are likely to be successful have not yet been submitted into the examination and therefore there is currently insufficient certainty over the likely success of this compensatory habitats.</p> <p>The value of the proposed fen meadow contingency fund (as per the draft Deed of Obligation [REP3-024]) remains undefined and ESC has concerns over the adequacy of the habitat creation thresholds currently proposed to trigger the start of the contingency fund process (as set out in paragraph 8.34 of the LIR [REP1-045]). Discussions are ongoing with the Applicant and Natural England on this matter.</p> <p>With regard to wet woodland compensation, as set out in the Wet Woodland Strategy [REP1-020], ESC have provided comments on this at Deadline 2 [REP2-173]. In addition to those comments, whilst we understand the rationale for site selection (being related to the fen meadow compensation sites), with the exception of the compensation area in the northern part of the Sizewell Estate, the geographic separation of the other compensation sites from SSSI areas means it appears unlikely that rare invertebrates (which are part of the reason for the SSSI designation) will readily colonise the new sites.</p>
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	<p>c. Minsmere As set out in the LIR, ESC primarily defer comment on HRA matters to Natural England (NE) as the statutory nature conservation organisation.</p>
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	<p>d. HRA</p> <p>d. ii. ESC defers to Natural England on HRA matters. However, on the matter of disturbance and displacement pending completion of the works, ESC are not yet persuaded that the magnitude of impacts have been sufficiently assessed in the HRA. The Suffolk Coast RAMS matter was addressed in the LIR at paragraph 8.1.61 [REP1-054], however agreement has now been reached based on the provision in the Deed of Obligation which provides for a Recreational Disturbance Avoidance Mitigation Contribution.</p> <p>ESC considers that the magnitude of this impact needs to be fully assessed in the Habitats Regulations Assessment (HRA) and appropriate levels of mitigation secured. This includes that proposed by the Applicant through the Monitoring and Mitigation Plan for Minsmere-Walberswick European Sites and Sandlings (North), the Monitoring and Mitigation Plan for the Sandlings (Central) and Alde, Ore and Butley Estuaries European Sites, physical measures on the wider Sizewell Estate and the contribution to the Suffolk Coast Recreational Disturbance Avoidance and Mitigation Strategy (RAMS).</p> <p>With regard to the Suffolk Coast RAMS, ESC does consider that it is relevant to this proposal, contrary to the assertion made in the Shadow HRA ([APP-145] paragraph 7.7.94). The RAMS deals with in-combination effects arising from all new residential development within the identified Zone of Impact through the provision of strategic mitigation measures. In acknowledgement of the temporary nature of the residential element of this project, ESC has prepared a bespoke calculation for the RAMS financial contribution, this is set out in Annex I of the LIR [REP1-054]. ESC welcomes the Applicant's commitment to providing this contribution.</p> <p>(Paras 8.26 – 8.30 LIR [REP1-045] and SoCG HRA2, HRA4, HRA5, HRA6 and HRA8 to HRA17 [REP2-076]).</p> <p>d. v. Position updates on air quality effects due to NOx and acid deposition.</p>
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	<p>Habitats and air quality – Within the LIR ([REP1-045] para. 19.24), ESC has raised concerns regarding the assessment of the impacts of emissions from combustion plant during routine operation and commissioning on designated habitat sites. The conclusions in the ES that impacts would be insignificant do not appear to be supported by the air quality model results. ESC supports Natural England’s comments on air quality in relation to potential impacts on designated sites and discussions on this matter remain ongoing.</p>
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	<p>e. Protected species</p> <p>Bats (MDS and SLR) – ESC maintains significant concerns over the impact of the proposed development on roosting, foraging and commuting bats, particularly at the Main Development Site (MDS) and the Sizewell Link Road (SLR).</p> <p><u>Loss of roosting habitat (LIR paras 8.52 to 8.56 [REP1-045])</u> – The approach to determining the impact of bat roost loss is based on consideration of the roost resource available in the area vs that which will be lost to construction (as set out in the submitted Updated Bat Impact Assessment [AS-208] paragraphs 8.3.4 to 8.3.16 (these paragraphs describe the approach for barbastelle, however it is understood it is the same for other bat IEFs). However, no data on the wider roost resource availability on the Sizewell Estate and in the surrounding area has been provided and therefore it is not possible to determine whether the impact of the resource to be lost is as presented in the ES.</p> <p>An updated survey of the potential bat tree roosts within the MDS has been submitted by the Applicant at Deadline 3 [REP3-035]. This reduces the number of trees considered to have potential bat roost features within the development red line boundary as a result of further survey efforts this year. However, ESC does not consider that this additional information addresses the primary concern about how the roost resource approach has been applied to assessing the impact of the loss of potential roost trees. Further detailed comments on this point and the latest survey report (including concern over trees surveyed in 2020 but not in 2021) have been included in our Deadline 5 submission. In particular, the Deadline 3 surveys do not include some trees surveyed in 2020 and has incomplete site coverage elsewhere, e.g. at the SSSI crossing.</p> <p><u>Loss of foraging habitats (LIR paras 8.57 to 8.59 [REP1-045])</u> – ESC considers that the seasonal importance of the habitats at Goose Hill has been underassessed, particularly for barbastelle and</p>
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Natterer's bats in the breeding season. The ES conclusion that the impact of the loss of this habitat will be Minor Adverse, Not Significant on all bat IEFs is not considered to be adequately justified. It is noted that in its Deadline 3 submission [REP3-044] the Applicant has committed to providing additional mitigation for foraging bats as part of an Estate-wide Management Plan (EWMP), however no further details on this have been provided and therefore ESC is not able to make any further comment on the acceptability of this at this time.

Habitat fragmentation (LIR paras 8.60 to 8.62 and 8.126 [REP1-045]) – The Applicant's submission at Deadline 3 [REP3-044] provides additional commentary on strategic mitigation measures to be employed during construction to address habitat fragmentation impacts, particularly the provision of three 'dark corridors' through the Temporary Construction Area (TCA). In addition to our concerns over the likely success of these routes due to construction noise and lighting impacts (as set out below), the proposed corridors are not shown on the Construction Parameter Plans (most recently [REP2-008]) submitted for approval and it is therefore unclear how provision of these is secured in the DCO.

ESC also considers that insufficient assessment of the in-combination impacts of the MDS and SLR have been undertaken, given that the two parts of the development are contiguous and will impact on the same bat populations. It is noted from the Applicant's submissions at Deadline 3 that further information on this matter will be submitted to the examination at Deadline 5 [REP3-044]. ESC will provide comment on this at the appropriate future deadline.

Construction noise disturbance (LIR paras 8.63 to 8.67 [REP1-045]) – Whilst modelling of construction noise impacts on bats has been submitted to the examination, ESC does not consider that the assessment presented in the application has fully considered how construction noise will impact on retained and newly created habitat corridors which are to be put in place to address other identified impacts (e.g. habitat fragmentation). As currently presented, ESC considers that bat IEFs could experience impacts above the Minor Adverse, Not Significant level set out in the ES

	<p>due to the proposed mitigation routes being unavailable due to noise levels above the acceptable thresholds. Dependent on the mitigation measures achievable, the actual night-time noise levels generated during the works and the duration of these, it is possible that some bat IEFs may experience an adverse impact of at least a Moderate Adverse, Significant level.</p> <p>It is also unclear how, in practical terms, unacceptable levels of noise will be defined, monitored and mitigated during construction. There appear to be potential conflicts between health and safety and further controls being implemented. At present there is nothing included in the application documentation that could easily be adapted to provide the basis for a Working Method Statement for an Ecological Clerk of Works (team).</p> <p><u>Construction lighting disturbance (LIR paras 8.68 to 8.69 [REP1-045])</u> – Additional lighting modelling has been provided by the Applicant at Deadline 3 in the form of a Technical Note on Indicative Lighting Modelling [REP3-057]. ESC has two main concerns over this additional information (detailed comments on the Technical Note are submitted in our Deadline 5 response).</p> <p>Firstly, whilst the Technical Note describes updated modelling and potential mitigation, this is not secured by the DCO as Requirement 9 (Construction Lighting) secures measures in the Lighting Management Plan [APP-182] which predates the Technical Note.</p> <p>Secondly, whilst the modelling in the Technical Note demonstrates that it is likely that an adequate dark corridor can potentially be maintained along Bridleway 19 (the western corridor), there will likely be light spill onto some of the boundary vegetation of the central corridor and onto the embankments and bridge entrances of the SSSI Crossing (eastern corridor). We therefore remain concerned that these corridors will not be as effective as required to maintain adequate connectivity for bats. The modelling also shows considerable light spill on to the southern</p>
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	<p>boundary of Ash Wood, potentially impacting on both its value for foraging and commuting bats, and bats roosts (particularly of barbastelle) which are present in the southern part of the wood.</p> <p><u>Residual adverse impacts (LIR paras 8.70 to 8.73 [REP1-045])</u> – The ES predicts a residual Moderate Adverse, Significant impact on barbastelle bats as a result of habitat fragmentation. No attempt has been made to identify additional mitigation or compensation measures which may help reduce these impacts, nor has any assessment been presented of what this impact actually means for the barbastelle population at the site. Given the importance of this population, ESC do not consider that this is an acceptable conclusion.</p> <p>The ES also concludes that the overall impacts on Natterer’s bat will be Minor adverse, Not Significant as the colony will adapt to the habitat fragmentation, although they will be more vulnerable because of it. It is unclear in this context whether vulnerability could result in a population-level effect as a result of additional impacts arising from the Sizewell Link Road, for example.</p> <p><u>Construction and Operational phase monitoring (LIR paras 8.141 to 8.148 [REP1-045])</u> – The bat monitoring measures set out in the ES and TEMMP (comments on the TEMMP were submitted at Deadline 2 [REP2-173]) are currently considered to be inadequate, with significant limitations in the techniques proposed. In particular, ESC is concerned that the monitoring of population level impacts on individual bat species (particularly barbastelle and Natterer’s bat) is not possible using the methodologies proposed. ESC understands that the Applicant is currently reviewing the strategy and we remain in discussion on this as part of the SoCG process.</p> <p>ESC: Bats - Paras 8.47 to 8.75 (MDS) and para 8.126 (SLR). LIR Appendices 2.3 and 2.4 LIR [REP1-045] and SoCG TEO2, TEO19 to TEO25, TEO33 to TEO36 and TEO53 [REP2-076].</p>
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	<p>Natterjack Toad (Main Development Site) – ESC considers that the proposed Water Management Zone (WMZ) north-east of Goose Hill has the potential to result in a significant adverse impact on natterjack toad terrestrial habitat (particularly hibernation habitat).</p> <p>It is understood from their Deadline 3 submission [REP3-044] that the Applicant is intending to submit further information on this matter at Deadline 5. ESC will provide further comments at the appropriate deadline following receipt and review of this information, (para 8.76 LIR [REP1-045] and SoCG TEO26 and TEO27 [REP2-076]).</p> <p>Other Protected Species (MDS):</p> <p>Otter – It must be ensured that pre-construction surveys are undertaken and that these are reflected in the CoCP. Detailed design of new Lovers Lane mammal culvert is required prior to the conclusion of the examination. Please also see our comments on SSSI Crossing fragmentation above.</p> <p>Water Vole – It must be ensured that pre-commencement surveys are undertaken to determine the final mitigation techniques required (trapping vs displacement) and that this requirement is reflected in the CoCP. Detailed design of new Lovers Lane mammal culvert is required prior to the conclusion of the examination. Please also see our comments on SSSI Crossing fragmentation above.</p> <p>Reptiles – Pre-construction surveys are required to inform population sizes and demonstrate that sufficient receptor habitat is available prior to translocation commencing. It is noted that the Applicant intends to submit an updated Reptile Mitigation Strategy and ESC will provide further comments on this at the appropriate deadline.</p> <p>Residual Impacts – ESC considers that, as currently presented and assessed by the Applicant, the proposed development will result in residual ecological impacts. Many of these residual impacts</p>
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	<p>may not be significant on their own (i.e. assessed as <i>Minor Adverse, Not Significant</i> in the ES), however, cumulatively they do represent a considerable erosion of the biodiversity of East Suffolk, (para 8.25 LIR [REP1-045] and SoCG TEO31 [REP2-076]).</p> <p>Whilst it may not be possible for the project to deliver specific mitigation measures to address all of these impacts, given the intrinsic link between landscape and ecology, ESC consider that the Natural Environment Fund could encompass an ecological element to compliment the landscape mitigation funding.</p>
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	<p>f. Other designated sites</p> <p>Sizewell Levels and Associated Areas CWS – The ES identifies that the loss of part of the Sizewell Levels and Associated Areas CWS is a <i>Moderate Adverse, Significant</i> impact, however no specific compensation measures are proposed to address this. Whilst ESC acknowledges that habitat creation across the wider Sizewell Estate post-construction is proposed which will result in an increase in the amount of semi-natural habitats available in the area, this is not currently secured in the DCO through requirements or obligations across the whole estate. Therefore, there is a lack of certainty that this wider habitat creation can be adequately secured and delivered. We note the Applicant’s commitment at Deadline 3 [REP3-044] to submit an Estate-wide Management Plan (EWMP) and will be able to comment further once this is available, (Sizewell Levels CWS - Paras 8.43 and 8.44 LIR [REP1-045] and SoCG TEO14 and TEO16 [REP2-076]).</p> <p>In addition to securing the estate-wide habitat creation, in terms of mitigating the loss of the CWS, any habitat creation within the order limits will not be possible until the post-construction period. There will therefore be a considerable time lag between habitat loss and replacement habitats becoming available.</p> <p>Suffolk Shingle Beaches CWS – The ES identifies that the long-term presence of the station sea defences will result in a <i>Moderate Adverse, Significant</i> impact on the Suffolk Shingle Beaches CWS. Whilst a soft coastal defence feature (SCDF) is proposed, which the Applicant states can be revegetated to replace the CWS habitat lost during construction, we remain concerned about how achievable this is given the location of the coastal defence features; the amount of recharge which may be required and the nature of the SCDF material used which we now understand may be coarser than the substrate present in the CWS at the moment (and which may not allow existing vegetation communities to grow), (paras 8.45 and 8.46 LIR [REP1-045] and SoCG TEO17, TEO18 and TEO18a [REP2-076]).</p>
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	<p>Foxburrow Wood CWS – ESC remains concerned that the proximity of the proposed bypass cutting to the CWS will result in adverse impact on the wood through hydrological changes. Further assessment of this potential impact is required to demonstrate whether it is likely to result in a significant impact and whether additional mitigation measures are required, (para 8.115 LIR [REP1-045] and SoCG TEO44 and TEO49 [REP2-076]).</p> <p>Floodplain Grazing Marsh (on 2VB route) – The scheme will result in the permanent loss of 2.91Ha of floodplain grazing marsh, a UK Priority habitat. Whilst measures to improve the remaining habitat are proposed, there will still be a net loss of habitat area which is not directly addressed in the application. ESC does not consider that this is acceptable and further measures to address this are required (such as through the Natural Environment Fund), (para 8.119 LIR [REP1-045] and SoCG TEO46 and TEO49 [REP2-076]).</p> <p>See also: the Applicant’s comments on the LIR [REP3-044].</p>
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	<p>g. Ancient woodland, veteran trees and the route of the Two-Village Bypass</p> <p>ESC understand that other designated sites will be dealt with on another occasion, the only other point relating to Item (g) is Foxborough Wood where ESC are concerned about adverse hydrological impacts.</p> <p>Ancient woodland - please see our comments above in relation to Foxburrow Wood CWS.</p> <p>Veteran trees (2VB) – ESC does not consider that impacts have been adequately addressed and awaits further detail on potential compensation / mitigation from the Applicant. In particular, ESC considers that insufficient consideration has been given to the loss of veteran trees located alongside the track between Farnham Hall and Foxburrow Wood, and in the east-west hedge line between Mollett’s Farm and Friday Street Farm Shop. No indirect compensation for this loss is proposed as part of the development. ESC notes the Applicant’s commitment at Deadline 3 [REP3-044] that further assessment of the veteran trees on the route and revised mitigation proposals will be submitted to the examination. We will provide further comment on this matter as required at the appropriate deadline following receipt and review of the new information, (para. 8.117 LIR [REP1-045] and SoCG TEO47 and TEO49 [REP2-076]).</p>
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	<p>h. The Sizewell Link Road – mitigation for loss of watercourses, mammal and invertebrate surveys</p> <p>ESC’s concern here relates to the in-combination effects, with the MDS works, on bats. ESC appreciates the request by the Examining Authority for ESC and the Applicant to meet separately to discuss ESC’s concern on bats and are happy to do this. We have also set out our comments in writing (above under protected species).</p>
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	<p>i. Duties under ss. 40 and 41 Natural Environment and Rural Communities Act 2006 ESC is of course aware of these duties but has nothing to add.</p>
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	<p>j. The position in relation to Letters of no impediment and any Environment Agency comfort letters</p> <p>ESC defers to Natural England and the Environment Agency on this matter as it relates to their protected species licencing and environmental permitting regimes.</p>
<p>3. Marine ecology</p> <p>a. HRA, European and other designated sites</p> <ul style="list-style-type: none"> I. Marine Mammals II. Fish, including migratory fish III. Birds - Disturbance/displacement of the red-throated diver qualifying feature of the Outer Thames Estuary SPA due to vessel movements/traffic IV. Birds – collision risk <p>b. Cooling water system, acoustic fish deterrents</p>	<p>a. No comment – this is outside of the remit of ESC.</p> <p>b. No comment – this is outside of the remit of ESC.</p> <p>c. No comment – this is outside of the remit of ESC.</p> <p>d. No comment.</p> <p>e. No comment – this is outside of the remit of ESC.</p>

<ul style="list-style-type: none">c. The securing mechanisms to control impacts on marine water qualityd. Progress update on status of the Water Industry National Environment Programme (WINEP) study being undertaken by Essex and Suffolk Watere. Fisheries, fish stocks, equivalent adult values, sabellaria spinosa;	
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