

The Lake Lothing (Lowestoft) Third Crossing Order 201[*]



Lake Lothing
**THIRD
CROSSING**

Document SCC/LLTC/EX/10: Response to the Examining Authority's First Written Questions

Planning Act 2008

Infrastructure Planning

The Infrastructure Planning (Examination Procedure) Rules 2010

PINS Reference Number: TR010023

Author: Suffolk County Council

Document Reference: SCC/LLTC/EX/10

Date: January 2019

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Foreword

This Response to the Examining Authority's Written Questions document relates to an application ("the Application") submitted by Suffolk County Council ("the Applicant") to the Secretary of State (through the Planning Inspectorate) for a development consent order ("DCO") under the Planning Act 2008.

If made by the Secretary of State, the DCO would grant development consent for the Applicant to construct, operate and maintain a new bascule bridge highway crossing, which would link the areas north and south of Lake Lothing in Lowestoft, and which is referred to in the Application as the Lake Lothing Third Crossing (or "the Scheme").

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Abbreviations

ABP	Associated British Ports
CftS	Case for the Scheme
CoCP	Code of Construction Practice
CPA 1965	Compulsory Purchase Act 1965
cSAC	Candidate Special Area of Conservation
DCLG	Department for Communities and Local Government (now referred to as the Ministry of Housing, Communities and Local Government)
DCO	Development Consent Order
dDCO	Draft Development Consent Order
DfT	Department for Transport
DGM	Design Guidance Manual
DML	Deemed Marine Licence
DMRB	Design Manual for Roads and Bridges
DR	Design Report
EA	Environment Agency
EIA	Environmental Impact Assessment
ES	Environmental Statement
FRA	Flood Risk Assessment
GI	Ground Investigation
HGV	Heavy Goods Vehicle
HPA 2016	Housing and Planning Act 2016
HRA	Habitat Regulations Assessment
IAQM	Institute of Air Quality Management

LCA 1961	Land Compensation Act 1961
LoD	Limits of Development
LLTC	Lake Lothing Third Crossing
LPA	Local Planning Authority
MMO	Marine Management Organisation
NMU	Non-motorised user
NNNPS	National Networks National Policy Statement
NRA	Navigational Risk Assessment
NRMM	Non Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
OAR	Options Appraisal Report
OBC	Outline Business Case
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
PNPS	Ports National Policy Statement
SCC	Suffolk County Council
SHA	Statutory Harbour Authority
SoCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
SRN	Strategic Road Network
SuDS	Sustainable Drainage System
TA	Transport Assessment
The Act	Planning Act 2008
WDC	Waveney District Council

WFD

Water Framework Directive

WSI

Written Scheme of Investigation

1 General and cross-topic questions

ExQ	Question to	Question	Response
1.1	The Applicant	In terms of general approach, the Limits of Development (LoD) set out within the Environmental Statement (ES) and those set out within the draft Development Consent Order (dDCO) [APP-005] relate to different elements of the Proposed Development. Neither of the above express a maximum or minimum set of dimensions for each of the main elements. It is unclear whether the assessments in the ES have taken the LoD set out in the dDCO into account, and whether the LoD specified in the ES are secured in the dDCO. Can the Applicant to make expressly clear the relationship between the LoD in the ES and the LoD in the dDCO?	<p>As set out in paragraph 5.2.9 of the Environmental Statement (ES) (Document Reference 6.1, PINS Document Reference APP-136), the assessments reported in the ES are based on the reference design of the Scheme (as presented in the Application documentation) and the 'limits of deviation' set out in Table 5-2 have informed the design parameters for the assessments reported in the ES ('the ES parameters of assessment').</p> <p>The draft DCO (Document Reference 3.1; APP-005) includes, in article 5, 'limits of deviation' ('LoDs') which relate to the numbered works in DCO Schedule 1 and which are fixed:</p> <ul style="list-style-type: none"> laterally/horizontally by reference to the limits shown on the Works Plans (Document Reference 2.4; APP-022 – APP-024); and vertically (upwards/downwards) by reference to the heights and levels shown on the Engineering Section Drawings (Document Reference 2.9; APP-038 – APP-051). <p>The ES parameters of assessment set out in Table 5-2 of the ES are reproduced in Appendix A to this document (SCC/LLTC/EX/10). Appendix A is in tabular form and, in respect of the elements of the scheme listed in ES Table 5-2, explains the relationship between the parameters of assessment specified in Table 5-2 of the</p>

ExQ	Question to	Question	Response
			<p>ES and the 'limits of deviation' provided for in the draft DCO.</p> <p>The Works Plans and Engineering Section Drawings are referenced in DCO Schedule 14 (Documents to be certified) as documents through which key elements and details of the Scheme to be delivered are secured.</p> <p>Schedule 14 also includes reference to the General Arrangement Drawings (Document Reference 2.2; APP-013 – APP-15 –Sheet 1 of which has been updated for Deadline 3: see SCC/LLTC/EX/20), the Design Guidance Manual (Deadline 3 updated version Document Reference SCC/LLTC/EX/17) and the Interim Code of Construction Practice (ES Appendix 5A; Deadline 3 updated version Document Reference SCC/LLTC/EX/28). Compliance with the terms of each of these documents to be certified is secured by DCO requirements (per DCO Schedule 2). These documents are based on the reference design which forms the basis for the assessments presented in the ES; collectively, they secure delivery of the scheme which has been assessed for the purposes of the ES.</p> <p>DCO Schedule 2 (Requirements) also provides additional controls through requirements for compliance with the terms of the Deemed Marine Licence (in DCO Schedule 12) and protective provisions (in DCO Schedule 13).</p> <p>The LoDs provided for in article 5 of the dDCO create the</p>

ExQ	Question to	Question	Response
			'envelope' within which the authorised development may lawfully be delivered. Those LoDs are within the parameters of the assessments carried out in respect of the reference design of the scheme and reported in the ES.
1.2	The Applicant	<p>Many of the plans, including the Works Plans [APP-022 to APP-024] and the General Arrangement Plans [APP-013 to APP-015], state that the design and location of elements of the Proposed Development are shown for illustrative purposes only and will be subject to detailed design development in accordance with the terms of the dDCO.</p> <p>i. Can the Applicant explain how the Reference Design used for the purposes of the assessments reported in the ES relates to the design of the Proposed Development set out in the plans presented?</p> <p>ii. In relation to the above, can the Applicant explain the relationship between the Engineering Section Drawings [APP-038 to APP-051] and the Works Plans [APP-022 to APP-024] (which it is indicated should be read in conjunction with the former)?</p> <p>iii. How have the design parameters set out in the Engineering Sections Drawings [APP-038 to APP-051] been taken into account in the assessments</p>	<p>i. The reference design used for the purposes of the assessments reported in the ES (Document Reference 6.1, PINS Document Reference APP-136) relates to the design of the proposed development set out in the application plans in that the latter is the scheme that has been assessed within the parameters of assessment (termed 'limits of deviation' as discussed in the response to ExQ1.1.1 above) applied to the assessments reported in the ES. The assessments reported in the ES cover the reference design set out in the application plans including the limits of deviation provided for in the draft DCO.</p> <p>ii. There is a relationship between the Engineering Section Drawings (Document Reference 2.9, PINS Document Reference APP-038 to APP-051) and the Works Plans (Document Reference 2.4, PINS Document Reference APP-022 to APP-024) in that both provide reference points for the limits of deviation set out in article 5 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11). As explained in response to ExQ1.1 above, the</p>

ExQ	Question to	Question	Response
		within the ES?	<p>lateral / horizontal limits of deviation provided for in article 5 are identified by reference to the Works Plans; and the vertical limits of deviation provided for in article 5 relate to the levels shown on the Engineering Section Drawings. The effect of this is that when read with each other and with the limits of deviation in article 5, the Works Plans and the Engineering Section Drawings define the 3-D envelope within which the authorised development may lawfully be delivered.</p> <p>iii. The limits of deviation are not currently 'set out in' the Engineering Section Drawings. Rather, as is explained in (ii) above, the heights and levels shown in the Engineering Section Drawings serve as reference points which are to be read in conjunction with the limits of deviation provided for in article 5 of the dDCO. In terms of the relationship between the parameters of assessment applied and reported in the ES, and the limits of deviation applied to the Works Plans and Engineering Section Drawings, the position is that when the detailed design of the Scheme is developed, it will be required to come within the limits of deviation set out in article 5 to the DCO, because those limits of deviation come within the parameters of assessment applied and reported in the ES.</p>

ExQ	Question to	Question	Response
1.3	The Applicant	The Proposed Development incorporates three construction compounds, the land take for these being identified on the Land Plans Sheet 4 [APP-020]. However, these have not been allocated a specific works number in the dDCO and are not otherwise identified on the Works Plans [APP-022 to APP-024]. Can the Applicant now define the location and extent of the compounds for the specific purposes of the dDCO?	<p>As the Statement of Reasons (Document Reference 4.1, PINS Document Reference APP-007) explains (at Appendix A), the plots comprising the large areas shaded green on the Works Plans (Document Reference 2.4, PINS Document Reference APP-022 to APP-024), which are proposed to be subject to a power of temporary possession, are proposed to be used as construction compounds.</p> <p>The construction compounds have not been identified as 'numbered works' in Schedule 1 (Authorised Development) to the dDCO (revised version, Document Reference SCC/LLTC/EX/11). The reason for this is that whilst the construction compounds are required to facilitate delivery of the authorised development, they will not form part of the permanent works comprising the authorised development. In accordance with general drafting conventions (widely accepted in made DCOs), permanent works are identified individually by reference to 'Works Nos', whilst ancillary works, including works required to deliver the permanent works - e.g. the setting up and deployment of construction compounds - are featured in the 'catch-all' provisions at the end of Schedule 1 to the DCO. Such works would therefore not be shown on the Works Plans.</p>
1.4	The Applicant	The ES makes reference to the potential need for cofferdams and temporary piers in relation to both north and south quays. Can the Applicant confirm the necessity for such temporary infrastructure?	The ES (Document Reference 6.1, PINS Document Reference APP-136) has assessed the impacts of a reasonable assumption as to the construction methodology, including the installation of cofferdams and piers.

ExQ	Question to	Question	Response
			<p>Not undertaking such activities would lead to lesser effects on the marine environment (as there would be less potential direct impact to ecology and sediment and no potential sources of pollution), so it is considered that the inclusion of these measures is based on reasonable assumptions as to the potential construction methodology.</p> <p>The final detailed construction methodology was not available at the time of assessment and will not be confirmed during Examination of the Scheme. There are controls on the detail of the marine methodology contained within the dDCO (revised version, Document Reference SCC/LLTC/EX/11) through the requirement of compliance with the CoCP (updated version, Document Reference SCC/LLTC/EX/28), and the operation of the DML and the Environment Agency's Protective Provisions.</p>
1.5	The Applicant	<p>A high-level construction phasing programme is presented with development commencing in the Quarter 4 of 2019 and opening of the bridge in Quarter 1 of 2022. However very limited detail is presented of the development activities and phasing within this period (Plate 5-2, Section 5.6 of the ES [APP-136]).</p> <p>Within the key phases (mobilisation, bridge construction, piles, pile caps, piers, bridge</p>	<p>The level of information provided within the ES (Document Reference 6.1, PINS Document Reference APP-136) has been sufficient to carry out a robust environmental assessment of the construction phase of the Scheme and the development of appropriate mitigation measures.</p> <p>To assist the Examination, set out below is a list of further explanation and/or cross references as to where more information is provided within the ES for the</p>

ExQ	Question to	Question	Response
		deck, southern approach, northern approach, demobilisation and scheme opening) can the Applicant provide details of the main activities within each of the identified phases?	<p>headings contained within Plate 5-2:</p> <p>Mobilisation – This is the mobilisation of the Contractor and site establishment. This will include activities such as those set out in paragraph 5.6.4 which refers to “site clearance to facilitate construction and the establishment of construction compounds”.</p> <p>Bridge construction – This includes the work to facilitate the construction of the piles, piers and the bridge deck. This will include the installation of the temporary cofferdams and piers which will be removed at the end of the bridge construction phase.</p> <p>Piles – Piling to support the pile caps. See paragraphs 5.6.25 to 5.6.28 of the ES.</p> <p>Pile caps – The installation of the pile caps which is a platform upon which the pier will sit.</p> <p>Piers – The installation of the piers upon the pile cap.</p> <p>Bridge deck – installation of the bridge deck including the closure of the navigation channel for the likely three-week period (see paragraph 5.6.19 of the ES).</p> <p>Southern approach – Construction of the non-bridge related elements of the scheme on the south side of Lake Lothing as per Table 5-3 of the ES.</p> <p>Northern approach – Construction of the non-bridge related elements of the scheme on the northern side of Lake Lothing as per Table 5-3 of the ES.</p> <p>Demobilisation – See 5.6.7 where it is stated that compound areas will be restored to previous conditions (in accordance with the dDCO (revised version, Document Reference SCC/LLTC/EX/11)).</p> <p>Scheme opening – Opening of the Scheme to traffic.</p>

ExQ	Question to	Question	Response
1.6	The Applicant	<p>i. Can the Applicant make clear to what extent the ongoing maintenance of the Proposed Development has been assessed in the ES?</p> <p>ii. Can the Applicant also identify within the dDCO the parameters of maintenance activities anticipated for the structure?</p>	<p>i. Paragraphs 5.7.2 and 5.7.3 of the ES (Document Reference 6.1, PINS Document Reference APP-136) identify the maintenance measures that are likely to be required during the lifetime of the Scheme. Paragraphs 6.3.33 and 14.1.3 provide justification for scoping the use of materials out of the assessment and within the assessments Tables 15-3 and 15-4 identify how the use of land take (including for maintenance purposes) has been incorporated within the assessment of effects on private assets.</p> <p>ii. As noted above, the extent of maintenance activities are fully contemplated in the ES. The structure maintenance activities of hose replacement, cylinder and pump refitting and cylinder and pump replacement will all be able to take place within the parameters of the powers and controls provided for in the DCO:</p> <ul style="list-style-type: none"> The acquisition of land, rights and restrictive covenants pursuant to articles 22, 25 and 26 and Schedules 6 and 8 of the dDCO, of plots 2-14, 2-17, 2-18, 2-21, 2-23, 2-26, 2-27, 2-28, 2-29, 2-30, 2-32, 2-33, 32-34, 3-03, 3-04, 3-05, 3-06, 3-07, 3-08, 3-11, 3-12, 3-13, 03-28, 3-29, 3-32, 3-33, 3-34, 3-35, 3-36, 3-37, 3-38, 3-39, 3-45, 3-47, 3-50, 3-55, 5-03, 5-10, 5-27 and 5-31 will enable the Applicant to carry out the maintenance activities and set out the long term parameters within which they will be able

ExQ	Question to	Question	Response
			<p>to be carried out.</p> <ul style="list-style-type: none"> For the first 5 year period after the opening of the authorised development, the Applicant may use temporary possession powers for the purposes of the authorised development (article 33 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11)). Any effect on navigation (which as noted from the ES, is the only potential aspect of maintenance where an effect has the potential to take place) arising in either of the scenarios described above would be able to be controlled by the harbour authority pursuant to paragraphs 53 and 54 of their Protective Provisions in the dDCO. <p>With reference to the definition of 'maintain' in article 2 of the dDCO, which includes 'inspection, repair, adjustment, alteration, removal and reconstruction', the Application notes the following:</p> <ul style="list-style-type: none"> An inspection cannot be considered to create significant environmental effects. Repair, adjustment or alteration is by definition a lesser extent of work than actually installing a part of the authorised development. As installation is already assessed in the ES, these lesser activities can be considered to fall within that

ExQ	Question to	Question	Response
			<p>assessed envelope. Furthermore, as noted above in response to (i) and throughout the ES, maintenance has been considered where relevant in each topic chapter. As summarised in paragraph 5.7.3 of the ES: "all other routine maintenance operations, including landscape maintenance, can be undertaken without a bridge closure or the need for excessively noisy plant or equipment".</p> <ul style="list-style-type: none"> • Removal is essentially the reverse of constructing a part of the authorised development, and so would have the same effect as already assessed in the ES. • Reconstruction involves repeating work already undertaken to construct the authorised development, and as such, the effects of such works come within the scope of the effects which have been assessed.
1.7	The Applicant	<p>Diversion of utilities infrastructure will be required in order to facilitate the Proposed Development.</p> <ol style="list-style-type: none"> Can the Applicant confirm that all connections to utilities are located within the Order limits? Have the impacts of such diversions and replacement connecting infrastructure been considered in all the relevant ES assessments? 	<ol style="list-style-type: none"> Yes. By way of example, plots 3-29 and 3-32 are included within the Order limits for, amongst other reasons, the purposes of facilitating statutory undertaker diversions (see Schedule 6 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11)). Yes – this is specifically noted in paragraph 5.6.22 of the ES (Document Reference 6.1, PINS Document

ExQ	Question to	Question	Response
			<p>Reference APP-136), which highlights that the process of finalising these diversions will be undertaken pursuant to the protective provisions contained within the dDCO. In terms of the practical works that would be undertaken for such diversions (i.e. ground breaking), it is noted that the ES has considered the effects of ground breaking on noise sensitive receptors (see Table 13-14) and potential dust generation within the air quality construction phase assessment (as part of consideration of earthworks activities, see ES chapter 8 and ES Appendix 8A (Document Reference 6.3, PINS Document Reference APP-167). Furthermore, the presence of services in the southern roundabout (Paragraph 5.6.18 of the ES) has informed the assumptions and assessment for the construction phase. Finally, the Applicant also notes the dDCO protective provisions, which ensure that the needs of affected statutory undertakers are protected.</p>
1.8	The Applicant	Both terrestrial maritime sediment waste are identified for disposal in the ES which are identified as 'small'. Can the Applicant provide further information of the types of waste anticipated during the construction phase?	<p>The types of terrestrial waste that are anticipated during the construction phase are listed in Paragraphs 14.4.6 and 14.4.7 of the ES (Document Reference 6.1, PINS Document Reference APP-136). Analysis of the sediment that will require disposal is contained within Appendix 12B of the Environmental Statement (revised version, Document Reference SCC/LLTC/EX/32). Paragraph 14.5.12 goes on to quantify that a total of 76,000m³ of unsuitable terrestrial material and a further 10,440m³ of sediment would require disposal. Further</p>

ExQ	Question to	Question	Response
			precision on the nature and quantity of wastes generated during construction is not available at this time, but the assessment has considered as a worst-case scenario the disposal of terrestrial arisings to landfill. Existing landfill capacity in the locality is such that this is not a significant effect as concluded in chapter 14 of the ES.
1.9	The Applicant	<p>A Mitigation Route Map [APP-135] has been provided which sets out the proposed controls and mitigation measures which the Applicant considers are necessary. Whilst a range of information is supplied to support such an approach it is deficient in key respects. Mitigation measures proposed need to be cross-referenced to specific provisions/ Requirements within the dDCO and Deemed Maritime Licence (DML).</p> <p>Can the Applicant please provide a summary table for all factors that identifies the receptor, impact, likely effects prior to mitigation, the specific mitigation measure, any residual effects following implementation of the mitigation, and any proposed monitoring that may be necessary?</p>	<p>The Applicant has provided an updated Mitigation Route Map as part of its Deadline 3 submissions (Document Reference SCC/LLTC/EX/21) to provide more detailed mitigation measure cross-referencing.</p> <p>In response to the second paragraph of this question, the Applicant has produced a summary table as requested (Document Reference SCC/LLTC/EX/47).</p>

ExQ	Question to	Question	Response
1.10	The Applicant	<p>Construction mitigation measures, incorporated in an interim Construction Code of Practice (CoCP) [APP-163] and applied through adherence to good practice are intended to secure appropriate construction-related mitigation. This is to be secured substantially through the interim CoCP but will also be finalised through a Requirement attached to the dDCO [APP-005]. However uncertainties remain; pollution prevention measures in respect of road drainage are caveated by a statement suggesting such measures may not be relevant if not relevant to a given construction methodology. In the context of such uncertainty, can the Applicant explain in detail how the measures set out in the interim CoCP and associated management plans will be secured through the dDCO?</p>	<p>Construction mitigation measures are secured through the operation of requirement 4 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11).</p> <p>This provides that no part of the authorised development may commence until a code of construction practice for that part of the authorised development has been submitted to the county planning authority by the undertaker following consultation with the Environment Agency and Waveney District Council and the submitted code of construction practice has been approved by the county planning authority.</p> <p>It also provides that any code of construction practice produced must be in accordance with the interim code of construction practice (revised version, Document Reference SCC/LLTC/EX/28).</p> <p>In this way, as the construction methodology is finalised, the relevant measures will be taken forward into the full CoCP that is approved by the county planning authority.</p> <p>The wording 'unless not relevant to the Contractor's construction methodology' deals with the fact that the ES (Document Reference 6.1, PINS Document Reference APP-136) has dealt with a worst case assessment, and that the final methodology may not require techniques that have the potential to cause adverse impacts. For example, that oil storage may not need to take place on site, meaning that part of the 9th bullet point of paragraph 8.1.2 would not need to be taken forward into</p>

ExQ	Question to	Question	Response
			<p>a CoCP. Furthermore, it may be the case that the relevant part of the authorised development that is to be constructed and is subject to the relevant CoCP for that part may not require such measures</p> <p>In any event, taking requirement 4 and the wording of the interim CoCP together, construction mitigation measures in the interim CoCP are fully secured.</p>

2 Environment

ExQ	Questions to	Question	Response
<i>Air Quality and Emissions (Chapter 8)</i>			
2.1	The Applicant	What further assistance/advice will be put in place for local residents affected by the Proposed Development in respect of air quality in the context of wider management during and after the construction phase of the project	<p>As set out at paragraph 8.7.5 of the ES (Document Reference 6.1, PINS Document Reference APP-136) the residual dust impact will be, at worst, slight adverse to the highest risk receptors. There are therefore no significant effects predicted upon local air quality during the construction phase, following application of the measures recommended by IAQM guidance for a high-risk site set out in the interim Code of Construction Practice (CoCP) (revised version, Document Reference SCC/LLTC/EX/28).</p> <p>The mitigation and monitoring measures in the interim CoCP are a robust starting point for the agreement of the final mitigation measures which will be confirmed through the agreement of the final CoCP with the county planning authority.</p> <p>The Applicant also notes that, as per the interim CoCP (paragraph 2.9.2), the Contractor will be required to develop a stakeholder community and engagement plan - this would provide mechanisms for resident liaison.</p> <p>Finally, the Applicant notes that there are no significant effects predicted upon local air quality in the operational phase so no further advice/assistance will be required.</p>
2.2	The Applicant	Will there be further modelling of air quality	The Applicant does not propose to undertake any

ExQ	Questions to	Question	Response
		levels at the key road junctions proposed to address concerns of Waveney District Council?	<p>further air quality modelling as it is considered that the modelling presented in the ES (Document Reference 6.1, PINS Document Reference APP-136) is sufficiently robust.</p> <p>The Applicant's response to WDC's concerns on this issue is set out in item EN20 of its Response to Relevant Representations (Document Reference SCC/LLTC/EX/2, PINS Document Reference AS-013). WDC have seen this information and in the SoCG submitted prior to the Preliminary Meeting (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007) agreed that the Applicant's operational phase modelling was sufficient in respect of its concerns.</p> <p>It is of note that no exceedances of the nitrogen dioxide or particulate matter annual mean objectives as defined by the Air Quality Standards have been modelled upon opening of the Scheme.</p>
Townscape and visual impact (Chapter 10)			
2.3	The Applicant	In addition to those measures already proposed, what further actions are necessary to mitigate the loss of landscaping within the areas of Compulsory Acquisition identified in respect of the Northumbria Water Trinity House site (plots 3-43, 3-46, 3-47, 3-48, 4-08, 5-01, 5-02, 5-03, 5-04 and 5-32) that have been previously required through conditions attached to approved planning permissions?	The ES has concluded in Table 11-6 that effects following mitigation on terrestrial invertebrates will be slight adverse in both the construction and operational phases. In accordance with the significance criteria identified in 11.3.11 and 11.3.12 of the ES (Document Reference 6.1, PINS Document Reference APP-136), this does not constitute a significant effect and further mitigation measures are not considered to be necessary.

ExQ	Questions to	Question	Response
			<p>The area of landscaping/biodiversity land permanently lost to the Scheme is constituted in plots 03-48 and 5-04, which are proposed to be compulsorily acquired to construct the southern approach to the new bridge. This is accounted for in the assessment noted above.</p> <p>Plots 03-47 and 05-03 are plots subject to compulsory acquisition of rights only for the purposes of the protection of the southern approach and to facilitate the diversion of statutory undertakers' apparatus.</p> <p>Such apparatus would be placed below ground, so would not affect the landscaping/biodiversity land permanently. The protection sought by the Applicant through the imposition of restrictive covenants would be to ensure that no built development could take place on the plot which would impact upon the safety of the Scheme, so would therefore also not affect the landscaping/biodiversity on the land.</p> <p>During the construction phase the Applicant will be able to utilise its temporary possession powers under article 32 of the DCO to facilitate construction of the Scheme in this area. Under article 32(4), in returning the land to NWL after this construction is complete, the Applicant must 'restore the land to the reasonable satisfaction of the owners of the land'. As part of this, NWL will be able to ensure that the land is restored in an appropriate fashion.</p>

ExQ	Questions to	Question	Response
			<p>The Applicant also notes that there is a specific commitment in the interim CoCP (revised version SCC/LLTC/EX/28) (paragraph 4.3.9) that affected land must be restored to be suitable for use by the five-banded weevil wasp, which is a species present on site.</p> <p>In light of all of this, no further actions are required. Finally, the Applicant notes that SCC and WDC (the latter as LPA) have not raised any concerns as to the effect of the Scheme on conditions 10 and 11 of Northumbria Water Limited's planning permission DC12/1391FUL (see SoCG submitted prior to the Preliminary Meeting (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007).</p>
2.4	The Applicant	<p>The Rochdale Envelope approach is acknowledged, as is the preparation of a Design Guidance Manual (DGM) [APP-133]. However the parameters of the design approach remain broad. The application Design Report [APP-123] states that the final version will be provided prior to the closing of the Examination. The Design Report goes on to state that a version will be submitted to meet Deadline 3 in the examination programme. In this context:</p> <ul style="list-style-type: none"> i. Can the Applicant confirm that the version of the DGM to be submitted for Deadline 3 will be the final version? ii. What provisions are being set out to ensure the finessing of the form, profile 	<p>(i) Further to the initial submission of the Design Guidance Manual (DGM) (Document Reference 7.6, PINS reference APP-133), the version submitted for Deadline 3 (Document Reference SCC/LLTC/EX/17) contains responses to the Relevant Representations as required. The DGM will continue to be developed through the Examination period.</p> <p>(ii) (iv) and (v) The DGM informs how the refinement of the design will remain in line with the Vision and design narrative for the Scheme but does not suggest structural decisions regarding variations in specific materials as such. Flexibility is retained for the Contractor to ensure the</p>

ExQ	Questions to	Question	Response
		<p>and proportion of the bridge and control tower design? Applicant's Design Report [APP-123 section 9.1] and DGM [APP-133 – chapter 3:3.5].</p> <p>iii. With specific regard to the control tower and its associated substation, can the Applicant explain the discrepancy between Work No 6 in the dDCO [APP-005] and General Arrangement Plan Sheet 2 [APP-015], each of which identify a different location for the substation?</p> <p>iv. What provisions are in place to ensure the choice of detailing for all bridge technical fixtures DMG [App-133 chapter 2: 2.4]?</p> <p>v. What provisions are being made to ensure the optimal choice of materials used in the construction of the bridge and all associated structures and infrastructure Applicant's Design Report [APP-123] and DGM [APP-133]?</p>	<p>most appropriate materials are proposed for the structural components of the Scheme. It explores components of the Scheme such as the bridge deck and control tower, and other structural items. Through the hierarchy of guidance (requirements, parameters, and concepts), and the continuation of the LPA workshops to review the design, a considered solution will be reached for the Scheme, and progress on this will be reported through future updates to the DGM. The Local Planning Authorities acknowledge that the DGM is an appropriate mechanism for ensuring design quality and a collaborative approach (see SoCG submitted prior to the Preliminary Meeting (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007).</p> <p>(iii) The Applicant does not consider that there is a discrepancy. The boundary for Work No.6 on the Works Plans (Document Reference 2.4, PINS Document Reference APP-024), covers the location of a substation shown on the General Arrangement Plans (Document Reference 2.2, PINS Document Reference APP-013 to APP-015).</p>
Traffic and transport (Chapter 19)			
2.5	The Applicant	Are there any further specific measures that can be presented that would address concerns over access to specific sites such as the Lings Motor Group [RR-012] and the Wickes site [RR-011]?	<p>Lings Motor Group Access</p> <p>The Applicant is continuing collaborative discussions with Lings Motor Group and its agent, regarding the effect of the Scheme on its land that includes access</p>

ExQ	Questions to	Question	Response
			<p>arrangements to the site.</p> <p>As part of this process, the Applicant had considered an alteration to the proposed alignment and width of Waveney Drive between the scheme roundabout and the A12 Tom Crisp Way/Waveney Drive.</p> <p>However, the results of the junction modelling demonstrated there would be a reduction in capacity leading to queues at the southern scheme junction and the junction with A12 Tom Crisp Way if this was taken forward.</p> <p>As such discussions are focussing on the design of the access point to the site and circulation of vehicles within the site. Consequently, the Applicant now proposes to bring forward a request for a non-material change to the access point.</p> <p>Wickes Site The Applicant would highlight that no proposals are being made that would materially affect or change the access to Wickes or any other part of the landowner's interest.</p>
2.6	The Applicant	Will there be a re-running of traffic modelling in relation to the identified junctions (Waveney District Council and Suffolk County Council) to address highway safety concerns [RR-020]?	<p>Additional modelling has been carried out by the Applicant in response to the detailed queries raised by SCC following their review of the junction capacity analysis provided by the applicant as reported in the Transport Assessment (Document Reference 7.2, PINS Document Reference APP-093).</p>

ExQ	Questions to	Question	Response
			<p>The results of the latest junction modelling are included in an updated version of the Transport Assessment (Document Reference SCC/LLTC/EX/23). This will be issued at Deadline 3.</p>
2.7	The Applicant	<p>i. What further mitigation measures are proposed in respect of Waveney Drive to address concerns over pedestrian/ cycle safety and enhanced connectivity?</p> <p>ii. Will pedestrian crossings be supported by signalling infrastructure to support above?</p>	<p>The Applicant recognises the importance of crossings to mitigate impacts on severance on Waveney Drive.</p> <p>i There are proposed new crossings on Waveney Drive and Riverside Road on the entry/exits to the new southern roundabout as shown on the General Arrangement Plans (Document Reference 2.2, PINS Document Reference APP-013 to APP-015) and the Design Guidance Manual (updated version, Document Reference SCC/LLTC/EX/17); both of which are referred to in requirement 3 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11). The Applicant considers these crossings provide suitable mitigation measures for severance and maintain connectivity across Waveney Drive.</p> <p>ii The Applicant continues to consider the suitability of signalised and non-signalised crossings in this location through the detailed design process. The Applicant notes that it has been agreed with SCC (the highway authority) in the SOCG (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007) (that “the type of control used at crossings should be determined at the detailed design stage taking account of the requirements set out in the Design Guidance</p>

ExQ	Questions to	Question	Response
			Manual”.
2.8	The Applicant	Is there any intention to introduce revisions through a Roads Traffic Order in relation to Durban Road (in relation to parking, parking restrictions and speed limits)?	As currently drafted, the dDCO (revised version, Document Reference SCC/LLTC/EX/11) includes traffic regulation measures to address the effects of the scheme on Durban Road. The relevant traffic regulation measures are provided for in article 52 of, and Schedule 11 to, the dDCO; and are illustrated on Sheets 2 and 3 of the Traffic Regulation Measures Plans (Prohibitions) (Document Reference 2.6, PINS Document Reference APP-030 and APP-031). The proposed traffic regulation measures address parking provision and waiting/loading restrictions – as set out in Part 2 (Prohibitions) and Part 3 (Revocations and Variations of Existing Traffic Regulation Orders) of Schedule 11 (Traffic Regulation Measures).
2.9	The Applicant	How will further parking restrictions on Canning Road and Riverside Road (overspill parking for the Riverside Business Park) be mitigated?	Following receipt of feedback received through relevant representations, the Applicant intends to propose revisions through a non-material change request to certain elements of the traffic regulation measures currently proposed in the dDCO (revised version, Document Reference SCC/LLTC/EX/11) (and related Traffic Regulation Measures Plans (Document Reference 2.6, PINS Document Reference APP-028 to APP-033)) to provide an appropriate balance to mitigate the parking restrictions on Canning Road and Riverside Road which were proposed in the Application as originally submitted.

ExQ	Questions to	Question	Response
2.10	The Applicant	What further measures can be put in place to address highway safety concerns in respect of the arrangements for the revised junction of the New Access Road and New Canning Road?	The Applicant does not consider that further measures are required. It is noted that Stage 1 of the Road Safety Audit (Document Reference 7.5, PINS Document Reference APP-131) did not raise any safety issues at this junction.
2.11	The Applicant	What measures will be implemented following consultation to ensure continued access to Waveney Gymnastics Club facilities, specifically in relation to Durban Road, over the course of the construction period?	<p>Requirement 12(3) of the dDCO (revised version, Document Reference SCC/LLTC/EX/11) provides that the closure of Durban Road to non-emergency vehicles (such as those accessing the gymnastics club) cannot take place until the parking and waiting prohibitions on Notley Road have been introduced; which will facilitate access to the gymnastics club from the opposite direction.</p> <p>As such, access to the Gymnastics Club will be able to be undertaken. Any other disturbance would be able to be communicated to the Gymnastics Club pursuant to the stakeholder community and engagement plan required pursuant to the interim CoCP (revised version, Document Reference SCC/LLTC/EX/28) (paragraph 2.9.2).</p>
Road drainage and the water environment (Chapter 17)			
2.12	Associated British Ports (ABP)	Could you please explain how the proposed bridge will impact on your ability to comply with your statutory duties as a statutory harbour authority (SHA), complying with the International Ship and Port Facility Security	Question not directed to the Applicant.

ExQ	Questions to	Question	Response
		Code and the obligations under the Port Marine Safety Code for the safety of navigation [RR-022]?	
2.13	ABP	How will the bisection of the inner harbour damage your ability to secure further business from the offshore wind sector [RR-022]?	Question not directed to the Applicant.
2.14	ABP	Are you satisfied that safety of navigation in the inner harbour can be maintained with two bridges in place operated by different bodies in two different places?	Question not directed to the Applicant.
2.15	ABP	i. Do you intend the emergency berth to be immediately to the east, on the north side, of the proposed bridge? ii. What length of quay will be required for this berth [RR-022]?	Question not directed to the Applicant.
2.16	ABP	Is a dedicated emergency berth provided in the outer harbour in respect of the A12/ A47 road bridge?	Question not directed to the Applicant.
2.17	ABP	If the proposed bridge is constructed will you still be able to use the berth immediately to the west on the north side where your transit shed is located?	Question not directed to the Applicant.
2.18	ABP	How many commercial ships have passed through the site of the proposed bridge in the previous twelve months?	Question not directed to the Applicant.
2.19	ABP	Will you as the SHA allow two-way working through the proposed new bridge for recreational vessels?	Question not directed to the Applicant.

ExQ	Questions to	Question	Response
2.20	ABP	Approximately how much material is removed at each of your biannual dredging programmes?	Question not directed to the Applicant.
2.21	ABP	How much notice do you usually receive of a commercial vessel requiring a bridge lift on (a) the inward passage and (b) departure?	Question not directed to the Applicant.
2.22	ABP	Do you consider that the raised north shore approach section of the bridge will have any adverse impact on the operation and use of the adjacent transit shed?	Question not directed to the Applicant.
2.23	The Applicant	Please explain in detail why you require the proposed bridge site to be closed to navigation for a continuous period of three weeks during the construction.	<p>The requirement to close the navigation channel for the duration of the installation of the main bascule bridge span derives from safety considerations, as the Applicant does not consider it safe to allow vessels to navigate beneath the structure while it is being moved into position and in a temporary form.</p> <p>The duration of 3 weeks is derived from a worst-case assessment of the potential time that could be required to complete the installation and initial commissioning of the main span and includes allowances for potential weather delays.</p>
2.24	The Applicant	A Preliminary Navigation Risk Assessment is provided with the application [APP-208]. When will the final Navigation Risk Assessment be published?	<p>The final Navigation Risk Assessment will not be able to be produced until the final construction methodology and design of the new bridge has been produced by the Contractor.</p> <p>Further to on-going discussions with ABP and the Navigation Working Group, the dDCO submitted at</p>

ExQ	Questions to	Question	Response
			<p>Deadline 3 (Document Reference SCC/LLTC/EX/11) includes a revised Requirement 11 which specifically provides for the Applicant to carry out an updated NRA following consultation with ABP and the navigation working group; and to construct and operate the new bridge in accordance with the recommendations of that updated navigation risk assessment and to keep it under review.</p> <p>Submission of a Preliminary NRA as part of an application has precedent in both the Silvertown and Thames Tideway DCO projects.</p>
2.25	The Applicant	How will the Undertaker ensure that it will always be able to communicate with ABP's control room?	<p>Whilst ultimately the Applicant will be responsible for the Control Tower, it is envisaged that an agreement will be reached with ABP such that they would be responsible for the operation of the control tower and the new bridge; and as such would therefore ensure effective communication with the control tower for the existing bridge.</p> <p>In any event, the scheme control tower would be set up so that it will have direct communications with A47 operations and the Port Control by way of a dedicated IT link. The scheme control tower will also be equipped with Marine VHF communications equipment which could be used to communicate with the Port Control in the event of an IT connection failure.</p>
2.26	The Applicant	Do you intend that your bridge opening regime will be the same as that operated by ABP at the A12/ A47 bridge?	The opening regime will be determined by the Scheme of Operation, a draft of which is included in this Deadline 3 submission (Document Reference SCC/LLTC/EX/41).

ExQ	Questions to	Question	Response
			<p>An earlier version has been subject to consultation with the Navigation Working Group as explained in Appendix B to this document. A final form of this scheme will be submitted by the end of Examination to become a certified document under the dDCO. Article 40 of the dDCO has been updated at Deadline 3 to take account of this proposed approach (Document Reference SCC/LLTC/EX/11).</p> <p>The scheme broadly matches that currently in application at the A47 bridge, with the exception of revisions to the restricted opening times to apply to peak hours.</p>
2.27	The Applicant	i. Is Highways England (HE) the owner of the A12/ A47 road bridge? ii. Is HE responsible for the maintenance of the bridge?	i. Yes as set out in the SoCG with Highways England (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007). ii. Yes, as set out in the SoCG with Highways England (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007).
2.28	The Applicant	Will your control room be manned 24 hours a day?	Yes, it is envisaged that the control room will be staffed 24hrs a day, 365 days per year.
2.29	The Applicant	How and who will measure the height of yacht masts before allowing them through without the bridge being raised?	The preliminary NRA (Document Reference 7.6, PINS Document Reference APP-208) identified real time air draft indicators as a means of mitigating some of the navigational risk for the Scheme and Section 7 of that document at paragraph 7.33 states that <i>"the bridge should be identified with suitable marks and lights, as</i>

ExQ	Questions to	Question	Response
			<p><i>agreed with the SHA and (if necessary) the General Lighthouse Authority (GLA), Trinity House Lighthouse Service”.</i></p> <p>Such marks and lights would include real time air draft indicators.</p> <p>Consequently, the draft Scheme of Operation (Document Reference SCC/LLTC/EX/41) directs that vessels should have regard to the real time air draft displays.</p> <p>A real-time clearance display will therefore be incorporated into the navigational markers on the bridge. This will be driven by a water level monitor located within the bridge passage and display the clearance available, with appropriate safety margin (a matter under discussion with the SHA), to approaching craft. This display would also be visible to the Lake Lothing Third Crossing (LLTC) Bridge Operator (as defined in the Scheme of Operation).</p> <p>While the determination of the air draft of individual craft will be for the vessels Master to confirm, the vessel Master must receive permission from the LLTC Bridge Operator to pass under the Scheme (as set out in the draft Scheme of Operation and as such the ultimate decision is made by the LLTC Bridge Operator.</p>

ExQ	Questions to	Question	Response
2.30	The Applicant	Will you allow two-way working for recreational vessels through your bridge?	Yes, two-way navigation through the bridge passage would be allowed subject to the direction of the Harbour Master, pursuant to the draft Scheme of Operation (Document Reference SCC/LLTC/EX/41).
2.31	The Applicant	What impact are the fenders either side of the Proposed Development designed to absorb?	<p>The fenders in the reference design are designed to be able to absorb the impact energy of vessels up to 7200T displacement under a number of different potential contact scenarios, as set out in the Fender Design Report (Document Reference 7.5; Appendix 1, PINS Document Reference APP-132B).</p> <p>The selection of design vessels for the purpose of testing this design was undertaken in consultation with the Statutory Harbour Authority (SHA).</p> <p>The precise nature of the fendering will be determined during detailed design.</p>
2.32	The Applicant	Have you reached agreement with ABP as regards maintenance dredging costs?	In principle, the Applicant has agreed that any additional maintenance dredging cost, be it associated with additional dredge volume or requirements for alternative dredging methods, will be reimbursed to ABP. The mechanism for assessment and payment of these is under discussion.
2.33	The Applicant	i. In your capital dredging programme how much material do you expect to remove?	i. 10,440m ³ (see paragraph 14.5.12 of the ES (Document Reference 6.1, PINS Document Reference APP-136))

ExQ	Questions to	Question	Response
		ii. What method(s) will you use to achieve this?	ii. The precise method of capital dredging is yet to be determined, albeit the Applicant envisages that either cutter suction, backhoe or grab dredging or a combination of these techniques would be used. As noted in Table 11-5, and paragraphs 15.5.29, 17.5.6, and 17.5.8 of the ES, the baseline environment in Lake Lothing is such that capital dredging would not by itself cause an adverse environmental effect. As such, the flexibility in choice of method does not impact on the ES. In any event, sufficient controls on dredging exist pursuant to the DML and interim CoCP (revised version, Document Reference SCC/LLTC/EX/28).
2.34	The Applicant	Why with the current technology available (CCTV etc) is a control room needed at the site of the proposed new bridge instead of centralising the control of both bridges in one location?	The potential for a combined control facility was explored early in the scheme development. Initial discussions with the SHA (ABP) over it becoming the operator of the bridge indicated that they did not feel remote operation would be safe, particularly in respect of pedestrians using the bridge and felt that a direct presence of personnel would be required to ensure safe operation. This concern was amplified by the current use of the existing bridge control as the main Port Control - it was felt that the increased demand placed on operational personnel by adding control of the new bridge should the facilities be combined would be too great.
2.35	The Applicant	What will be the width of channel available to shipping when (a) the cofferdams for the outermost piers are being constructed and (b)	As stated in paragraph 2.5.1 of the interim CoCP (revised version, Document Reference SCC/LLTC/EX/28) (compliance with which is secured

ExQ	Questions to	Question	Response
		when the cofferdams have been constructed?	<p>through requirement 4 of the dDCO), the Contractor must maintain the navigation channel at all times, except when possession of the entire channel or a restriction on navigation is required to facilitate construction (such as narrowing the vessel size that can pass through the area). Such occasions must be consulted upon with the harbour authority pursuant to article 20 of the DCO.</p> <p>As noted in paragraph 3.8.1 of the ES (Document Reference 6.1, PINS Document Reference APP-136), the existing width of the navigation channel within Lake Lothing is 32 metres. As noted in table 5.2 of the ES, the two steel piled cofferdams would project as far as the navigation channel upon operation, leaving a 32m distance for navigation - i.e. the existing channel.</p> <p>As such, it has both been assumed, and it is controlled through the CoCP, that construction and use of the cofferdams will not affect the existing navigation channel.</p>
2.36	The Applicant	<p>ABP as the SHA require an emergency berth in the inner harbour.</p> <ul style="list-style-type: none"> i. What consideration has been given to the provision of an emergency berth in the harbour to the east of the proposed crossing in response to concerns raised by ABP? ii. What is you're the Applicant's preferred solution in the event of 	<ul style="list-style-type: none"> i. An assessment of the potential requirement for an emergency berth in the inner harbour between the scheme bridge and the A47 bridge has been undertaken by the Applicant. This assessment has followed the principles and methodology used in the preparation of the Scheme pNRA (Document Reference 6.7, PINS Document Reference APP-208). The conclusion of this work was that alternative methods of risk mitigation could be employed that would reduce the residual risk from an event of this

ExQ	Questions to	Question	Response
		your proposed bridge not fully opening for some reason?	<p>nature to an acceptable level without the need for provision of a dedicated emergency berth.</p> <p>ii. The Applicant is proposing that sequential operational mitigation be implemented, using an operational flow chart identifying the combination of factors that contribute to the risk and the process that is to be followed for each combination. This process is illustrated in an appendix to the draft Scheme of Operation (Document Reference SCC/LLTC/EX/41).</p> <p>The Applicant believes this method of mitigation will provide sufficient assurance of navigational safety without disproportionate cost to the Scheme and without impacting on the overall aims of the project.</p>
2.37	The Applicant	Have you yet obtained permission from the Marine Management Organisation to dispose of your dredged material in TH005?	<p>The DML provides that the Applicant <u>must</u> dispose of dredged material in TH005, however, as noted in paragraph 14.5.16 of the ES (Document Reference 6.1, PINS Document Reference APP-136) and through the operation of the DML, such disposal will only be able to be undertaken following the Applicant undertaking sampling of the sediment, and the MMO confirming that the dredged materials may be disposed of at sea (i.e. at that site).</p> <p>On the basis of the results of the sediment sampling set out in Appendix 12B to the ES (Document Reference SCC/LLTC/EX/32), the Applicant is confident that this sampling will not preclude disposal at sea; but this will not be able to be confirmed until closer to the time of the</p>

ExQ	Questions to	Question	Response
			<p>construction of the Scheme.</p> <p>Furthermore, the SoCG with the MMO (Document reference SCC/LLTC/EX/5 (Appendix 6), PINS Document Reference AS-007) notes agreement that disposal at sea is an acceptable option, subject to the sediment analysis (secured in the DML) confirming the dredged materials are suitable for disposal at TH005.</p>
2.38	The Applicant	<p>i. What mitigation measures is the Applicant able to put in place to mitigate the closure of the western harbour to recreational and cruising craft over the summer closure period?</p> <p>ii. Do such measures include modifications to the programme to minimise the closure period, reducing the current three week closure period?</p> <p>iii. Has consideration been given to temporary berthing facilities below the proposed bridge location for the duration of the closure period?</p>	<p>i)The Applicant, for the purpose of identifying a worst-case assessment for the ES assessed a three week closure in the summer. It is not necessarily the case it will be in the summer, or it that it will be for three weeks. The Applicant is now working with the appointed Contractor to determine the best method to mitigate the effect of this potential impact, having regard to the likely construction methodology, including availability of plant and where the closure would be required to deliver the most efficient construction programme. Discussions have been held with the Navigation Working Group to obtain their thoughts on potential options and are reported in the report on the most recent meeting appended at Appendix B to this response.</p> <p>ii. The potential to adjust programme to either reduce the closure period or move the closure period to outside recreational peak season will be explored by the Applicant and the appointed Contractor, however it is too early in the development of the construction sequencing to confirm the ability to achieve this.</p>

ExQ	Questions to	Question	Response
			iii. The Applicant explored the potential to provide some temporary berthing facilities with the NWG at its most recent meeting. Those discussions have however indicated that provision of temporary moorings within the Port is challenging, but the Applicant will keep the matter under review as further detail becomes available on the likely timing and duration of the closure.
Nature conservation (Chapter 11) (including Habitats Regulations Assessment)			
2.39	Question deleted by the Examining Authority		
2.40	The Applicant	<p>In respect of ES Chapter 17 Road Drainage and the Water Environment [APP- 136]:</p> <p>i. In respect of European designations for nature conservation sites, para 17.4.3 of the ES states that there are no water related designations within the aspect study area but that the Outer Thames Estuary Special Protection Area (SPA) (classified for non-breeding red-throated divers) and Southern North Sea candidate Special Area of Conservation (cSAC) (designated for harbour porpoise) are located approximately 1.3km downstream, within the 2km Water Framework Directive (WFD) Protected Areas Search Area. No subsequent reference is made to these sites within this ES chapter. Can the Applicant explain the extent to which</p>	<p>i) The assessment of effects upon these designated sites has been scoped out of the assessment within Chapter 17 because they do not have any hydrological qualifying features.</p> <p>However, they are within the scope of the WFD Assessment; please see WFD Scoping Template Section 4 WFD protected Areas (Document Reference 6.3, PINS Document Reference APP-199).</p> <p>Here it states: <i>Outer Thames Estuary SPA (non-breeding red-throated divers qualifying feature) and proposed Southern North Sea SAC (harbour porpoise qualifying features) approximately 1.3km downstream. A Habitat Regulations Assessment Screening Study has been undertaken which concludes that there are no significant direct or indirect effects on the qualifying features of these designated sites. No further assessment is required.</i></p>

ExQ	Questions to	Question	Response
		<p>impacts on nature conservation sites, including the European sites within the WFD protected search area, have been assessed?</p> <p>ii. What evidence is there to support the conclusion that Leathes Ham (a local nature reserve) is not hydraulically connected to Lake Lothing, and therefore excluded from further consideration of effects?</p> <p>iii. What evidence is there to support the conclusion that Oulton Broad is not hydraulically connected to Lake Lothing as a consequence of the presence of Mutford Bridge, an 'artificial barrier', and is therefore excluded from further consideration of effects?</p>	<p>The EA has confirmed to the Applicant by email on the 14 December 2018 that it is satisfied with the WFD Assessment following further information submitted to it in response to its Relevant Representation. This confirmation will be included within the updated SoCG with the EA at Deadline 4.</p> <p>Furthermore, the Updated Habitats Regulations Assessment Report Revision 2 (Document Reference SCC/LLTC/EX/43) concludes that there are no significant effects upon the Outer Thames Estuary Special Protection Areas (SPA) or the Southern North Sea cSAC (Candidate Special Area of Conservation).</p> <p>ii) Natural England on their designated sites website state that Leathes Ham is a small freshwater lake¹. The ES (Document Reference 6.1, PINS Document Reference APP-136) states in Paragraph 17.4.8 that "it is assumed that Leathes Ham and Lake Lothing are not hydraulically linked as Leathes Ham is reported to be a freshwater body, and is located up-gradient of the Scheme."</p>

1
<https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1008995&SiteName=leathes%20&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=> (accessed 21.12.18)

ExQ	Questions to	Question	Response
			<p>As Leathes Ham is over 500m up gradient from the Scheme and as the assessment has concluded a no greater than slight adverse effect upon Lake Lothing there would not be significant effects upon Leathes Ham as a consequence of the Scheme.</p> <p>iii) The default position for Mutford Lock is the closed position, thus preventing up-tide flows into the Broads. It is only opened when there is a boat requiring passage during lock operating hours and at that point the amount of hydrological connectivity would be restricted to the volume of water within the lock itself.</p>
2.41	The Environment Agency	<p>In respect of ES Chapter 17 Road Drainage and the Water Environment [APP-136]:</p> <ul style="list-style-type: none"> i. Does the Environment Agency agree with this assertion made by the Applicant in relation to Leathes Ham and Oulton Broad? ii. The Environment Agency has expressed concerns over the completeness of evidence in respect of sediment transportation. Please can you provide further details about the nature of these concerns, including identifying the data that you consider is required? (The 	Question not directed to the Applicant.

ExQ	Questions to	Question	Response
		Sediment Transport Assessment [APP-201] is indicated as being updated for Examination Deadline 3).	
2.42	Question Deleted by the Examining Authority		
2.43	The Applicant	<p>Section 5 Mitigation and monitoring In light of risks associated with hard standing removal associated with the Proposed Development can the Applicant confirm:</p> <ul style="list-style-type: none"> i. the area of the Proposed Development that is currently hard standing and the degree to which this currently prevents potential infiltration of pollutants to groundwater; and ii. the area of this that will be affected during the construction phase and the likely level of the risk that the construction works would breach the impermeable surface and potentially compromise the groundwater quality? 	<p>i) The area of hardstanding that is presently in place has not been quantified within the groundwater assessment, as this is not material to the assessment. Should any contamination be identified during the construction phase of the Scheme, mitigation, as identified in 12.6.1 and 12.6.2 and secured through the interim CoCP (Document Reference SCC/LLTC/EX/28) (paragraph 5.2.2, and 5.2.6 – 5.2.8) and dDCO (revised version, Document Reference SCC/LLTC/EX/11) will be undertaken to address this risk to groundwater.</p> <p>ii) Whilst it is certain that the construction works will breach the 'impermeable' surface (and it should be noted that the existing surface is not strictly impermeable as there will be an element of permeability) no significant areas of contamination have been identified and no significant soil leachate exceedances have been identified. It is therefore concluded that, where the 'impermeable' cover is removed and infiltration increases, generation of a contaminated leachate is unlikely to occur that could compromise groundwater quality. Section 6.3 of the Interpretative Environmental Ground Investigation Report (revised version, Document SCC/LLTC/EX/32) presents the controlled waters risk assessment and in Paragraph 6.3.22 this concludes that "soil, soil leachate</p>

ExQ	Questions to	Question	Response
			and groundwater samples identify that concentrations are not significant”.
2.44	The Applicant	Appendix 12c of the ES [APP-193] concludes that the proposed piling design sufficiently mitigates risk of ground water contamination, although describes the information currently presented as ‘conceptual’. In light of this uncertainty, can the Applicant explain how the proposed mitigation of potential impacts on the receptors identified in the risk assessment would be secured to ensure that no significant adverse effects would arise?	Controls on the effects of piling (including methodology) are set out in section 5 of the Interim Code of Construction Practice (Document Reference SCC/LLTC/EX/28). Any risk in relation to contaminated land is controlled through the contaminated land Requirement contained within the dDCO (revised version, Document Reference SCC/LLTC/EX/11).
2.45	The Environment Agency and the Marine Management Organisation	Impacts on groundwater quality are anticipated to be of minor magnitude, resulting in an effect of slight adverse significance, based on the findings of the Piling Risk Assessment [APP-193] and as set out in ES Chapter 12 [APP-136]. Can the Environment Agency and the Marine Management Organisation confirm that they agree with the outcome of this assessment?	Question not directed to the Applicant.
2.46	The Applicant	In order that the risks to ground water contamination as a result of accidental spillage are mitigated can the Applicant confirm: i. how the surface water drainage system specifications and detailed	i. Requirement 6 requires written details of a surface water drainage system to be approved by the County Planning Authority, following consultation with the LPA. The surface water drainage strategy includes provision for pollution control and Requirement 6 also requires that the drainage system must be in accordance with

ExQ	Questions to	Question	Response
		<p>design will be secured through the DCO;</p> <p>ii. how the drainage system will be monitored; and</p> <p>iii. how any adverse effects from pollutants would be removed from groundwater should any pollution enter groundwater through surface water infiltration?</p>	<p>the drainage strategy.</p> <p>ii. The ES (Document Reference, PINS Document Reference APP-136) has not suggested that monitoring is required as the risk is considered low, and so it is not included in the drainage strategy. If it was determined that such monitoring was required, the County Planning Authority can require it as part of the detailed drainage strategy pursuant to Requirement 6.</p> <p>iii. Given the measures within the response to i) and ii) it has been concluded that there is no likely risk to groundwater through surface water infiltration. Although the ES has assessed no likely risk in the construction phase, adequate mitigation measures will be able to be put in place pursuant to the measures set out in the interim CoCP (Document Reference SCC/LLTC/EX/28) (section 8) and further to the EA's protective provisions in the dDCO (Document Reference SCC/LLTC/EX/11).</p>
2.47	The Applicant	In order that water quality monitoring is effective prior to, during and after construction, can the Applicant confirm how this monitoring of water quality would be secured through the dDCO [APP-005]?	The Interim CoCP (Document Reference SCC/LLTC/EX/28) (paragraph 8.1.8) (secured through the operation of requirement 4) provides for a programme of adaptive water quality monitoring; and that the monitoring parameters, frequency and location will be agreed with the Environment Agency prior to construction works commencing pursuant to their protective provisions.

ExQ	Questions to	Question	Response
			As such, the commitment to water quality monitoring is fully secured through the dDCO.
2.48	The Applicant	<p>In relation to the Habitats Regulations Assessment (HRA) [APP-206/ AS-003]:</p> <ul style="list-style-type: none"> i. Are the limits of development set out in ES Figure 5.1 (Order Limits of the Scheme [APP-140]) those applied as the limits for the purposes of HRA? ii. Para 3.3.2 of the HRA Report identifies the potential impacts that were considered in relation to all the European sites included in the assessment. Can the Applicant confirm that these parameters are agreed with Natural England? 	<ul style="list-style-type: none"> i. Please see 1.1.8 and Figure 1 of the updated HRA revision 2 report. Revision 1 of the HRA in 4.1.1 had previously provided a reference to the ES where the Scheme and the Order limits are shown. ii. Natural England has previously agreed to the parameters for the assessment of potential impacts, and the Applicant is seeking confirmation that that remains the case in the light of recent CJEU case law. This matter will be considered further with Natural England in the updated statement of common ground to be submitted at Deadline 4. In the meantime, the Applicant can advise that Natural England in its S42 response stated “Natural England agrees with the screening conclusion of no Likely Significant Effect (LSE) on designated sites subject to mitigation measures put in place. These measures should be described in the application documents and embedded in the final project design.” This agreement was made to a previous consultation version of the HRA that included the same parameters that are presented in Para 3.3.2 of the application HRA report, with the exception of Air Quality, which was additionally included following subsequent air quality assessment which identified a requirement for the deposition of nitrogen from road traffic emissions

ExQ	Questions to	Question	Response
			to be considered.
2.49	Natural England	Para 3.3.2 identifies the potential impacts that were considered in relation to all the European sites included in the assessment [APP-206/AS-003]. Can Natural England confirm these are in accordance with their expectations of appropriate parameters to be set?	Question not directed to the Applicant.
2.50	Marine Management Organisation	Para 3.3.2 identifies the potential impacts that were considered in relation to all the European sites included in the assessment [APP-206/AS-003]. Can the Marine Management Organisation confirm these are in accordance with their expectations of appropriate parameters to be set?	Question not directed to the Applicant.
2.51	The Applicant	Can the Applicant identify the source of the data relied upon for the assessment sourced from statutory and non-statutory bodies in section 1.3 of the HRA Report [APP-206], including cross-references as appropriate to survey information contained within the application documents?	Please see Paragraph 1.3.1 of the HRA R2 and its associated footnote
2.52	The Applicant	i. Can the Applicant explain how they intend to address the concerns of the Environment Agency set out in their responses on the Sediment Transport Assessment (STA) [APP-	The Applicant has discussed with and provided clarifications to the Environment Agency regarding their comments upon the Sediment Transport Assessment (Document Reference 6.3, PINS Document Reference APP-201) and Water Framework Directive Assessment

ExQ	Questions to	Question	Response
		<p>201] and Water Framework Directive Assessment (WFDA) [APP-199]?</p> <p>ii. Can the Applicant supply an update on any progress made on the level of agreement between Environment Agency and the Applicant?</p>	<p>(Document Reference 6.3, PINS Document Reference APP-199). As a result of these discussions, the Applicant has agreed to submit an updated Sediment Transport Assessment as part of its Deadline 3 submissions (Document Reference SCC/LLTC/EX/36) which deals with the concerns raised by the EA on the document.</p> <p>It was agreed between the parties that based on the clarifications provided to the EA, an updated WFD Assessment did not need to be submitted to the Examination.</p> <p>On the basis of the progress made to date, the Applicant is confident that the SoCG to be submitted at Deadline 4 will be able to record the final position of both parties on these documents.</p>
2.53	The Applicant	Can the Applicant provide information on the methodology applied to the HRA in-combination study area and accurately identify the study area thereof?	The methodology and approach taken to identifying the in-combination study area is explained in paragraphs 1.3.1 to the new 1.3.4 of the HRA R2 (document reference SCC/LLTC/EX/42). As that text explains, in consultation with Natural England, and as agreed at the Screening Stage, there was no study area per se applied to the identification of projects to be assessed but rather those that were considered to have the potential to give rise to possible effects upon European Sites were included.
2.54	The Applicant	Can the Applicant provide a justification of the conclusion that in-combination effects will not result in significant effects on any European site that addresses the in-combination effects of	Please see section 6.11 of the HRA R2. As is noted in that text, the developments considered for potential in-combination effects either have been assessed to not cause an effect on European and international sites, or

ExQ	Questions to	Question	Response
		each development considered for all phases of the Proposed Development? This justification should refer to in-combination rather than cumulative effects.	where an assessment has not been carried, out are of such a distance that no in-combination effects are predicted to occur in any of the construction, operation or de-commissioning phases of the Scheme.
2.55	The Applicant	Can the Applicant explain the basis for the assumption (with appropriate cross-reference to supporting evidence) that there will be no significant effects to air quality as a result of construction machinery emissions?	<p>In comparison to road traffic emissions, the emissions from Non Road Mobile Machinery (NRMM) during the construction phase are not predicted to be significant because there will be far fewer construction plant items operating within the Order limits when this is compared to the change in traffic flow adjacent to sensitive receptors during the operational phase. This is similarly concluded in the Updated Habitats Regulations Assessment Report Revision 2 (Document Reference SCC/LTC/EX/43) which states in paragraph 4.14.2 that emissions with construction machinery/vehicles are not expected to have a significant effect on local air quality (and thus relevant ecological receptors).</p> <p>For example, Figure 19.4 of the ES (Document Reference 6.1, PINS document reference APP-136) identifies that there are 14,267 AADT modelled in the do something scenario upon Waveney Drive in 2022 and that this is an increase from 8,180 AADT in the do minimum scenario.</p> <p>The changes to traffic on Waveney Drive result in a modelled deterioration of +4.9µg/m³ of NO₂ on Waveney Drive (see Paragraph 8.5.23 of the ES) but this remains below the objective level. It is therefore concluded that construction machinery is unlikely to lead to greater emissions during the construction phase than</p>

ExQ	Questions to	Question	Response
			<p>over 6000 extra vehicles per day along Waveney Drive, especially because construction machinery will be located across the Order limits.</p> <p>Furthermore, the distance between any construction equipment and any designated site will ensure that there is no effect from construction machinery emissions.</p> <p>However, specialist construction phase air quality monitoring for dust and PM10 has already been stipulated in the interim CoCP (Document Reference SCC/LLTC/EX/28) (section 3.3) (secured through dDCO requirement 4) as per the IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites and this would monitor ambient concentrations of PM during construction and therefore the emissions from NRMM on site.</p>
2.56	The Applicant	<p>i. Can the Applicant explain why the Broadland Ramsar site has been screened out and not taken forward to the Appropriate Assessment stage despite indications that it too supports species identified for the Broads SAC, which has been taken forward to appropriate assessment?</p> <p>ii. If this omission is an error can the Applicant provide the corresponding information accordingly, including an integrity matrix?</p>	<p>This was an error, a new integrity matrix has been added to the HRA R2 at section 8.6.</p>

ExQ	Questions to	Question	Response
2.57	Natural England	Does Natural England agree the approach set out by the Applicant that given the non-availability of conservation objectives for the Broadland Ramsar site those identified for the Broadland SPA are appropriate?	Question not directed to the Applicant.
2.58	Natural England	Does Natural England agree with the conclusions set out in Section 9 of the HRA Report [APP-206/ AS-003] that the Proposed Development will not have an adverse effect, either alone or in combination, on the integrity of any European site?	Question not directed to the Applicant.
2.59	The Applicant	In relation to the Broadland Ramsar site can the Applicant provide an updated screening matrix to address the absence of the Ramsar Criterion 2 species and habitats from Matrix 6.6?	An updated matrix 6.6 has been added to the HRA R2.
2.60	The Applicant	Can the Applicant provide an updated screening matrix to address the apparent discrepancy in respect of Benacre to Easton Bavents SPA and the absence in the formal site information of a reference to Bittern as an over-wintering feature (Matrix 6.10)?	The updated conservation objectives sheet lists current (2014) reasons for citation which differ from the citation sheet which reiterates pSPA citation reasons (1996) The updated HRA R2 has been corrected to state that Bittern are Breeding rather than overwintering – references to overwintering have been deleted from the relevant Matrixes and text at paragraph 5.7.2 in the HRA R2.
2.61	The Applicant	Can the site conservation objectives for the Benacre to Easton Bavents SPA be confirmed?	Both sources quoted and citations have been added to paragraphs 5.7.4 and 5.7.5 of the HRA R2.
2.62	The Applicant	Can the vulnerabilities and the conservation objectives for the Benacre to	The conservation objectives in Paragraph 5.7.5 remain relevant because they are site specific and therefore

ExQ	Questions to	Question	Response
		Easton Bavents SPA set out in paragraphs 5.7.3 and 5.7.4 also be made consistent with the formal site information [APP-206/AS-003]?	more appropriate for the basis of the assessment. However, as requested please see new Paragraph 5.7.4 of the HRA R2 which has been revised to include more recent, but less site specific conservation objectives as referenced in the footnote to Paragraph 5.7.4.
2.63	The Applicant	Can the Applicant agree with Natural England in respect of the Alde-Ore Estuary SPA (Section 5.8 and Matrix 6.11) a consistent approach to formal site information?	This matter will be addressed with Natural England in the updated statement of common ground to be submitted at Deadline 4.
2.64	The Applicant	Can the Applicant explain to the ExA how they intend to progress consideration of the <i>Holohan CJEU judgement (C-461/17)</i> , issued on 7 November 2018?	<p>The Applicant is in discussion with Natural England to ascertain whether the HRA R2 has appropriately assessed all ecological resources relevant to the conservation objectives and integrity of the European sites, further to the Holohan development.</p> <p>This matter will be considered further with Natural England in the updated statement of common ground to be submitted at Deadline 4.</p>
2.65	The Applicant	<p>In respect of the Screening matrix Evidence Notes (ENs) for the Southern North Sea SCI/cSAC (Matrix 6.7) and the Outer Thames Estuary SPA (Matrix 6.8), can the Applicant:</p> <ul style="list-style-type: none"> i. Specify the maximum volume of sediment that would require disposal? ii. Explain how it would be determined if it was suitable? iii. Explain how any sediment would be disposed of in the event that it was not suitable for disposal in the specified 	<ul style="list-style-type: none"> i) See response to question 2.33 i) ii) Please see Appendix C of this document. iii) Should sediment not be suitable for re-use or recycling and be identified as unsuitable for offshore disposal, it will be disposed of on land. Please see Land Sediment Disposal Report (Appendix D of this document) for greater detail. <p>The final physical act of the disposal of sediment on land will be regulated by the Environment Agency subject to the requirements of the environmental permit held by the operator of any waste management facility</p>

ExQ	Questions to	Question	Response
		iv. offshore disposal area (TH005)? Explain who would approve the alternative disposal method?	where the sediment is managed or disposed of.
2.66	The Applicant	In respect of the Broads SAC, please can the Applicant provide an updated screening matrix to address: i. the absence of information in relation to the impact pathway from the application site to the SAC with specific reference to any effects on otters; and ii. further evidence to support the assertion that there will be no significant effects on Desmoulin's whorl snail, the Fen orchid and the Ramshorn snail within the SAC area.	In all cases where there is relevant and accepted documentary evidence to support the statements made this has been cited. Where direct evidence is not available, reliance has been placed on indirect evidence, with regard being paid to relevant published guidance and scientific studies, literature, and research elsewhere, and professional judgment from qualified ecologists has been used to assess the effects of the proposal, applying the precautionary principle and best scientific knowledge, and taking account of consultation responses from the relevant statutory consultees, to inform the conclusions in the HRA Natural England have not raised any comments with regard to the conclusions within the HRA and the Applicant will seek to confirm this in the SoCG to be submitted at D4.
2.67	The Applicant	In respect of the Broadland SPA can the Applicant provide an updated screening matrix containing evidence that addresses the following points: i. In relation to displacement, no evidence is provided in screening matrix ENss d, e, and f to support the statements made therein, other than a reference in EN d to the distance of the SPA from the application site; and	In all cases where there is relevant and accepted documentary evidence to support the statements made this has been cited. Where direct evidence is not available, reliance has been placed on indirect evidence, with regard being paid to relevant published guidance and scientific studies, literature, and research elsewhere, and professional judgment from qualified ecologists has been used to assess the effects of the proposal, applying the precautionary principle and best scientific knowledge, and taking account of consultation

ExQ	Questions to	Question	Response
		ii. in relation to pollution, no evidence is provided in screening matrix ENs j, k, and l to support the statements made therein, other than a reference in each note to the distance of the SPA from the application site.	<p>responses from the relevant statutory consultees, to inform the conclusions in the HRA.</p> <p>Natural England have not raised any comments with regard to the conclusions within the HRA and the Applicant will seek to confirm this in the SoCG to be submitted at D4.</p>
2.68	The Applicant	<p>In respect of the Broadland Ramsar site can the Applicant provide an updated screening matrix containing evidence that addresses the following points:</p> <p>i. No information is provided (and therefore corresponding ENs) in Screening Matrix 6.6 for Ramsar Criterion 2 habitats and species; instead the reader is referred to the information contained in the Broads SAC matrix (6.4);</p> <p>ii. In relation to displacement, no evidence is provided in screening matrix ENs d, e, and f to support the statements made therein, other than a reference in EN d to the distance of the SPA from the application site;</p> <p>iii. in relation to pollution, no evidence is provided in screening matrix ENs j, k, and l to support the statements made therein, other than a reference in each note to the distance of the SPA from the application</p>	<p>Item i has been addressed through the addition of new paragraphs to this matrix.</p> <p>Items ii, iii In all cases where there is relevant and accepted documentary evidence to support the statements made this has been cited. Where direct evidence is not available, reliance has been placed on indirect evidence, with regard being paid to relevant published guidance and scientific studies, literature, and research elsewhere, and professional judgment from qualified ecologists has been used to assess the effects of the proposal, applying the precautionary principle and best scientific knowledge, and taking account of consultation responses from the relevant statutory consultees, to inform the conclusions in the HRA</p> <p>Natural England have not raised any comments with regard to the conclusions within the HRA and the Applicant will seek to confirm this in the SoCG to be submitted at Deadline 4. [PM1]</p> <p>Item iv There is negligible risk of any effect on harbour</p>

ExQ	Questions to	Question	Response
		<p>iv. site; in relation to displacement, screening matrix EN d states that vibration and underwater noise generated by construction activities has the potential to disturb harbour porpoise. It is concluded that the works would not be likely to disturb the porpoise and give rise to their displacement on the basis that the works would be of temporary duration during construction only and the large size of the cSAC which is 1.3km from the application site at its closest point. No further information is provided to support this conclusion. It is then noted that in any event construction methods would follow JNCC's 'Statutory Nature Conservation Agency protocol for minimising the risk of harm to individual marine mammals occurring as a result of piling noise'. Please can the Applicant explain whether implementation of JNCC's protocol is considered necessary to avoid a significant effect on this species; and</p> <p>v. in relation to displacement, in screening matrix EN e it is stated that operation and decommissioning works would not require piling and consequently concluded that there would be no risk of vibration and underwater noise affecting</p>	<p>porpoise from the Scheme. The JNCCs 'Statutory Nature Conservation Agency protocol for minimising the risk of harm to individual marine mammals occurring as a result of piling noise' would be used as secured through the interim CoCP. This protocol is not required to avoid significant effects but is included as a best practice measure.</p> <p>Item v. In the absence of any detailed information on the decommissioning of the Scheme the assessment has assumed that the decommissioning phase is analogous to the construction phase and the assessment has therefore been undertaken on that basis.</p> <p>Item iv, v The Applicant believes this matter has been addressed appropriately and will seek to confirm this with Natural England in the statement of common ground submitted at Deadline 4. It is of note that the Broadland Ramsar is 1.3km from the Order limits and the ES (Document Reference 6.1/APP-136) has concluded in Table 13-16 that the greatest construction noise impact of 91dB is experienced at Receptor A, on the boundary of the Order limits and this can be mitigated by 10dB as stated in Paragraph 13.5.24 of the ES.</p>

ExQ	Questions to	Question	Response
		harbour porpoise. It is not stated whether consideration has been given to any other decommissioning activities that could cause noise and vibration.	
2.69	The Applicant	<p>In respect of the Outer Thames Estuary SPA can the Applicant provide an updated screening matrix containing evidence that addresses the following point:</p> <p>i. In relation to displacement screening matrix EN d, no evidence has been provided to substantiate the conclusion that red-throated diver would not be subject to disturbance from construction, operation or decommissioning works and would not be displaced from the site as a result of any of these activities.</p>	Please see Paragraph 6.8.4 of the HRA R2
2.70	The Applicant	<p>In respect of the Alde-Ore Estuary SPA can the Applicant provide an updated screening matrix on the following point?</p> <p>ii. In relation to displacement screening matrix EN j provides an explanation for the conclusion that there would not be any significant effects on Lesser black-backed gull but does not indicate from where the information is derived.</p>	Please see Paragraph 6.10.10 of the HRA R2
2.71	The Applicant	In respect of the updated HRA Report Integrity Matrices can the Applicant clarify	The Scheme does not have significant effects in HRA terms and there are the in-combination assessment has

ExQ	Questions to	Question	Response
		whether the conclusion that there would not be any significant in- combination effects on any European site took into account the effects of combining a number of effects from other developments, which alone were not significant?	considered the combined effects from all other projects included in the in combination assessment, and has not disregarded any of those effects on the basis that in isolation they might not be significant. The Applicant has examined the information reasonably available for each of these schemes, including the effects of those schemes which were not significant and considered this with respect to each phase of the Scheme. The Applicant has concluded that no significant in combination effects would occur.
2.72	The Applicant	In relation to potential in-combination effects on the three European sites taken forward to the appropriate assessment stage: in the absence of a quantification or definition of effects in accordance with any identified methodology can the Applicant provide greater elaboration of the conclusion in paragraph 6.11.7, specifically with regard to the methodology applied?	The Applicant has used PINS advice note 10 in preparation of this HRA and Natural England have raised no comment to date on the methodology that has been followed. Its conclusions have been made taking into account other developments in the context of the conservation objectives and integrity of the European sites and their ecological resources. Where information is limited, the assessment has been made in consultation with relevant statutory consultees and conclusions have been made based upon the information that is reasonably available.
2.73	The Applicant	Can the Applicant explain the extent to which there is agreement between relevant consultation bodies, including Natural England, the Environment Agency and the Marine Management Organisation, on the approach and findings of the updated version of the HRA Report [AS-003] submitted by the Applicant?	The Applicant notes that the overall approach to HRA was agreed with Natural England in the SOCG submitted prior to the Preliminary Meeting (Document Reference SCC/LLTC/EX/5, PINS Document Reference AS-007). Further to the Examining Authority's questions, and as noted above, an updated HRA will be submitted as part

ExQ	Questions to	Question	Response
			of the Applicant's Deadline 3 submissions (Document Reference SCC/LLTC/EX/42). The Applicant will work to secure agreement of all the aforementioned consultation bodies to the combined changes to the HRA for recording in the Statements of Common Ground Report to be submitted at Deadline 4.
2.74	Natural England	Can Natural England explain the extent to which there is agreement between the Applicant and themselves on the approach and findings of the updated version of the HRA Report [AS-003] submitted by the Applicant?	Question not directed to the Applicant.
2.75	The Environment Agency	Can the Environment Agency explain the extent to which there is agreement between the Applicant and themselves on the approach and findings of the updated version of the HRA Report [AS-003] submitted by the Applicant?	Question not directed to the Applicant.
2.76	The Marine Management Organisation	Can the Marine Management Organisation explain the extent to which there is agreement between the Applicant and themselves on the approach and findings of the updated version of the HRA Report [AS-003] submitted by the Applicant?	Question not directed to the Applicant.

3 Compulsory acquisition, Temporary Possession and other land or rights considerations

ExQ	Question to	Question	Response
3.1	Waveney District Council	What evidence is there of active development proposals on the identified plots that would be compromised by the acquisition of land to facilitate the bridge proposals?	This question is not directed to the Applicant.
3.2	The Applicant	In relation to the Statuslist Ltd land (Plots 3-16, 3-40, 3-41, 3-59, 4-01, 4-02, 4-03, 4-04 and 4-05) what evidence is the Applicant able to offer that alternative routes for the new south shore access road have been considered and on what basis they were rejected?	The Applicant's Response to Relevant Representations (Document Reference SCC/LLTC/EX/2, PINS Document Reference AS-013) sets out at section 6.2, Table 6-1, issue number LD4, an explanation of the alternative routes that have been considered for the new access road on the south shore, together with an account of the basis on which those alternatives were rejected and the current layout was progressed. As this explanation also makes clear, discussions regarding the new access road proposals have continued between the Applicant and Statuslist. As a result, a revised alignment has been discussed between Statuslist and the Applicant, in respect of which the Applicant intends, at Deadline 4, to request a proposed non-material change.
3.3	The Applicant	In relation to the land in which Overseas Interests Inc; Waveney Fork Trucks Limited; Lift Truck Rentals Limited; Nexen Lift Trucks Limited; Oakes Recruitment Limited; Team Oakes Limited and Hitech Grand Prix are interested (Plots 3-29, 3-30), what measures	Paragraph 2.6.1 of the interim CoCP (revised version Document Reference SCC/LLTC/EX/28) sets out that the Contractor must allow access from the public highway to Nexen Trucks during the construction of the Scheme save for in exceptional circumstances and with advance notice. Pursuant to requirement 4 of the dDCO, which requires the

ExQ	Question to	Question	Response
		have been put in place to ensure continued access to the sites by all delivery vehicles during the course of construction?	authorised development to be carried out in compliance with a CoCP that is developed in accordance with the interim CoCP; access to the Nexen sites is therefore secured.
3.4	ABP	i. What evidence is there that the acquisition of land within the port estate will act to the serious detriment of the port undertaking? ii. What proportion of the existing birth space to be acquired is in current active or proposed use? iii. What specific detriment do you identify to the existing port operations to the east of the proposed crossing location? iv. In what ways will the bisecting of the inner harbour damage your ability to secure further business from the off-shore wind sector? v. What specific evidence do you have that the effects identified above will result in the deflection of future business to competitor ports? vi. What other mitigation measures have you proposed in respect of the above matters?	This question is not directed to the Applicant.

ExQ	Question to	Question	Response
3.5	The Applicant	What measures are being put in place to ensure the safeguarding and continuity of access to Cadent Gas Ltd's apparatus on its land immediately adjacent to the DCO boundary during the course of the construction period [RR-014]?	The Applicant has been in negotiations with Cadent about putting in place appropriate measures to safeguard its apparatus. The text of a set of Protective Provisions for Cadent's benefit is virtually agreed and is included in the dDCO submitted at Deadline 3. The Applicant and Cadent are discussing further amendments to the dDCO with a view to providing more specific protection for Cadent's benefit.
3.6	The Applicant	The Applicant is requested to complete the Compulsory Acquisition Objections Schedule provided at Annex A to this document, or to reconcile its content with an updated version of the Negotiation Tracker [APP-010] provided with the application.	<p>This has been provided as part of the Applicant's Deadline 3 submissions in the form of a 'clean' version (Document Reference SCC/LLTC/EX/15) and a tracked changes version (Document Reference SCC/LLTC/EX/16).</p> <p>Both versions reconcile the required content of Annex A to ExQ1 with an updated version of the Negotiations Tracker submitted with the Application (Document Reference 4.4, PINS Document Reference APP-010). Both versions include updated information showing how negotiations have been progressed since the time of the submission of the Application.</p>
3.7	The Applicant	The Funding Statement identifies an overall short fall of 8m in funding. Can the Applicant now identify the 'other sources' of funding referred to in the statement that can address the shortfall?	Paragraphs 3.2.8 and 3.2.9 of the Funding Statement (Document Reference 4.2, PINS Document Reference APP-088) state that should the additional £8m in funding be required, the County Council would make this available. This statement is supported by Appendix C to the Funding Statement, which comprises the Suffolk County Council Cabinet Report dated June 2018 ("the Cabinet Report").

ExQ	Question to	Question	Response
			As explained in paragraphs 8 and 9 of the Cabinet Report, whilst a local capital contribution to the funding of the Scheme is expected to be necessary, the sum and sources of that contribution are not expected to be confirmed until the scheme is taken forward to the final business case stage. In the meantime, the Applicant continues to consider potential sources of funding, examples of which are set out in paragraphs 8, 20 and 26 of the Cabinet Report.
3.8	The Applicant	In this regard, can the Cabinet of Suffolk County Council (through the Applicant) confirm that the additional funding of 8m would be available if required?	As explained in paragraph 20 of the Cabinet Report (as referenced in the response to ExQ1.3.8 above) it is anticipated that the Applicant would be required to guarantee the local funding contribution at the time of submission of the full business case to the Department for Transport. As paragraph 3.2.7 of the Funding Statement (Document Reference 4.2, PINS Document Reference APP-088) explains however, if the additional funding cannot be drawn down from other local sources, the Applicant would seek to borrow the monies or draw on its capital reserves in order to deliver the Scheme.
3.9	The Applicant	In the event of 'other sources' not being available, is the Applicant able to identify sources of borrowing alternatively available to address the shortfall?	If Suffolk County Council were unable to secure funding from other sources, it is likely that the funding shortfall would be secured through the Public Works Loan Board (PWLb). However this would be determined nearer the time (if required) and would be based on the best available lending options for Suffolk County Council at that time.
3.10	Applicant	Has the Cabinet of Suffolk County Council made any further decisions in respect of	The Applicant is currently in discussion with partners, including the New Anglia Local Enterprise Partnership

ExQ	Question to	Question	Response
		securing shortfall funding prior to the anticipated final decision date of autumn 2019?	(LEP); however the Cabinet of Suffolk County Council has not made any further decisions relating to a potential funding shortfall since the time of the June 2018 Cabinet Report. As the Cabinet Report explains (at paragraphs 9, 27 and 57), following the completion of the detailed design of the Scheme including any changes as a result of the examination and final DCO, and the exercise of value engineering analysis, the Applicant will be in a better position to identify the extent of any shortfall funding if needed.

4 Draft Development Consent Order

ExQ	Question to	Question	Response
4.1	ABP	<ul style="list-style-type: none"> i. With regard to your Relevant Representation [RR-022], in particular, paragraphs 3.1 (a) (b) (c) (d) could you please explain in greater detail how the proposed bridge will have a seriously detrimental effect on your day to day port operations? ii. As the SHA are you satisfied that the provisions of the dDCO will give you proper control of the harbour especially in an emergency in the vicinity of the proposed bridge? 	Question not directed to Applicant.
4.2	The Applicant	Referring to Article 20(2)(b) of the dDCO in what circumstances can you envisage the whole of Lake Lothing requiring to be closed to navigation?	<p>The flexibility sought by article 20(2)(b) of the draft DCO (dDCO) (revised version Document Reference SCC/LLTC/EX/11) is intended to account for the fact that the extent of closure required to facilitate the construction, inspection or maintenance of the new bridge is not known at this time and will be dependent on the detailed construction methodology and maintenance regime.</p> <p>Following discussions with ABP, however the Applicant is of the view that the relevant area will be within the order limits and has therefore updated article 20(2)(b) of the draft DCO to that effect (see Deadline 3 submission Document Reference SCC/LLTC/EX/11.)</p>

ExQ	Question to	Question	Response
4.3	The Applicant	With regard to Article 4 of the dDCO, can the Applicant more precisely quantify how much land 'adjacent' to the DCO boundary (and thus will be affected by the provision) will be affected?	<p>The Applicant notes that the word used in the article is 'adjoining' rather than 'adjacent'.</p> <p>In this context adjoining has the meaning given in the Oxford Dictionary, i.e. 'next to or joined with'. As such, the land affected by this Article will be that which shares a boundary with the Order limits.</p> <p>The precise extent of the land adjoining but outside the DCO boundary ('the Order limits') would depend on the purpose for and the manner in which such land was affected and also on the nature of the land in question and the DCO power to which it was subject.</p> <p>For instance, the dDCO (revised version, Document Reference SCC/LLTC/EX/11) contains a provision enabling the carrying out of protective works to buildings, and it is conceivable that the exercise of this power might be necessary, on a proportionate basis, to prevent, monitor or rectify damage caused by the authorised development to land or property lying beyond but adjoining the Order limits. Similarly, the dDCO includes a power to survey and investigate land outside</p>

ExQ	Question to	Question	Response
			<p>the Order limits, where this is reasonably necessary.</p> <p>Of course, it is not anticipated that any land outside but adjoining the Order limits would be required for the purposes of constructing, operating or maintaining the authorised development, since the power to carry out those activities is subject to the limits of deviation in article 5, which provides that the undertaker must construct the authorised development within the Order limits.</p>
4.4	The Applicant	With regard to Article 43, can the Applicant confirm that the limitations to the extent of maintenance advised by 42(2) should also apply to maintenance authorised by Article 43?	Yes, the wording in article 42(2), which limits the extent of maintenance permitted by article 42, should also apply to maintenance authorised by article 43. The updated dDCO submitted at Deadline 3 has been amended accordingly (see Document References SCC/LLTC/EX/11 and SCC/LLTC/EX/12).
4.5	The Applicant	With regard to Article 14 , can the Applicant provide an explanation as to the legal nature of the term 'temporary passage' that would obviate the need to acquire an easement over identified land?	<p>The power conferred by article 14 (use of private roads for construction) is to be exercised only within the Order limits. As such, it complements the power of temporary possession for the purpose of construction provided by article 32 (temporary use of land for carrying out the authorised development) and confirms that the application of the power in article 32 extends to land which is laid out and used as a private street.</p> <p>It is in this context that the term 'temporary passage' (as used in the Explanatory Memorandum (but not in the dDCO)) is used. The term 'temporary passage' is relevant to the concept of the use of a street in its</p>

ExQ	Question to	Question	Response
			ordinary sense. As such usage would occur in the context of the exercise of a power of temporary possession, there is no need for the acquisition of an easement over the land in question, when it is being used in this way for the temporary purpose of construction.
4.6	The Applicant	With regard to Article 28 , can the Applicant explain how they have taken into account the implications of the Housing and Planning Act (specifically sections 203 to 205) in respect of the power to override easements and other rights?	Sections 203 to 205 of the Housing and Planning Act 2016 ('HPA 2016') relate to the power (in section 203) to override easements and other rights, and to the provision of compensation for such interference (section 204). The implications of this power are wide-ranging – for instance, the power applies in respect of all types of interests and rights, in cases where there is planning consent (the definition of which includes development consent under the Planning Act 2008 - per section 205) for the works causing the interference, and the land has been appropriated or acquired by, or could be acquired compulsorily, in connection with those consented works. Notwithstanding the above, the inclusion in the DCO (revised version, Document Reference SCC/LLTC/EX/11) of the power in article 28 is necessary because it is slightly wider in scope than the power in section 203 of the HPA 2016. By way of explanation, article 28 authorises interference with easements and other rights not only where necessary in connection with the 'carrying out of building or maintenance work' (as is the case where section 203 of the HPA 2016 applies) but also in connection with 'the exercise of <i>any</i> power authorised by the DCO' and in relation to 'the use of any land (including the temporary

ExQ	Question to	Question	Response
			<p>use of land)' (per article 28(2)). Of particular importance is the application of the power in article 28 to land within the Order limits which is subject only to the power of temporary possession, and not to the power of compulsory acquisition.</p> <p>The Applicant's considered view is that the power in article 28 (as currently drafted) is necessary and proportionate in order to enable the delivery of the authorised development whilst ensuring that provision is made for compensation to be paid to affected persons whose interests in or rights over land may be subject to interference arising therefrom.</p>
4.7	The Applicant	With regard to Article 31 , can the Applicant explain and justify the need to clarify that entering and taking possession for the temporary use of land is not caught by the counter notice procedures under Schedule 2A?	<p>Article 31 (Modification of Part 1 of the Compulsory Purchase Act 1965 ('CPA 1965')) applies Part 1 of the CPA 1965 to section 125 (application of compulsory acquisition provisions) of the Planning Act 2008. As such, article 31 sets out the drafting modifications necessary to enable compatibility between the CPA 1965 and relevant procedures in the Planning Act 2008.</p> <p>The drafting modifications include an interpretation clause (at article 31(5)(b)), which makes it clear that for the purposes of the application of Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the CPA 1965, "references to entering on and taking possession of land do not include doing so under ... articles 32 (temporary use of land for carrying out the authorised development) or 33 (temporary use of land for maintaining the authorised development)..."</p> <p>The purpose of this drafting is to make it clear that where temporary possession of land is taken, even</p>

ExQ	Question to	Question	Response
			<p>though this may constitute 'entering on and taking possession of land' in practical terms, such entry is an exercise of the powers in articles 32 or 33 and does not constitute the taking of entry and possession pursuant to the exercise of powers of acquisition (i.e. through the notice to treat and notice of entry procedures provided for by the CPA 1965). As such, it is unequivocally clear that the counter-notice procedures under Schedule 2A are not applicable where land is only to be used and possessed temporarily.</p> <p>The Applicant is aware that the counter-notice procedures under Schedule 2A are only applicable where notice to treat has been served but entry has <i>not</i> yet been taken; however, the Applicant still considers that the clarificatory drafting in the 'interpretation clause' proposed in article 29(5)(b) is desirable in order to avoid any uncertainty about the applicability of those procedures, particularly given the similarity in the language used, where both the severance procedures in the CPA 1965 and the temporary possession powers in the dDCO (revised version, Document Reference SCC/LLTC/EX/11) refer to 'taking entry and possession of land'.</p> <p>Finally, the Applicant notes that the drafting in question was proposed in the final draft of the Silvertown Tunnel DCO and was subsequently endorsed by the Secretary of State for Transport through its inclusion in the made</p>

ExQ	Question to	Question	Response
			Silvertown Tunnel Order 2018. As such, the Applicant considers there is appropriate precedent for the equivalent drafting proposed in the dDCO for the Lake Lothing Third Crossing.
4.8	The Applicant	<p>The Explanatory Memorandum [APP-006] refers to section 7 of the Land Compensation Act 1961 (LCA61). Section 7 has now been replaced by section 6B (Lower compensation if other land gains value) of the LCA61.</p> <p>Terms such as “<i>contiguous or adjacent</i>” are terms no longer used in the LCA61. In the light of this, can the Applicant confirm whether any modifications are required in respect of Article 38?</p>	<p>Section 7 of the Land Compensation Act 1961 ('LCA 1961') has been repealed and is replaced by section 6B (Lower compensation if other land gains value) of the LCA 1961.</p> <p>The effect of section 6B is equivalent to that of repealed section 7, in that it provides for any increase in the value of retained land (arising from the scheme) to be set off against the value of the compensation paid for land which is acquired compulsorily in connection with the scheme.</p> <p>Section 6B defines the land to which such set off applies as the "other land" – being land "<i>which is contiguous or adjacent to</i>" the land being acquired compulsorily. In light of the above, the Applicant does not consider that any modifications are required in respect of article 38 of the dDCO (revised version, Document Reference SCC/LLTC/EX/11).</p> <p>However, the Applicant will update the reference in the draft Explanatory Memorandum to section 7 of the LCA 1961, to explain that whilst the principle underlying</p>

ExQ	Question to	Question	Response
			<p>article 38 was established by section 7 of the LCA 1961, that provision has now been replaced by section 6B of the LCA 1961.</p>
4.9	The Applicant	With regard to Article 47, can the Applicant be more specific in identifying the power on which this Article is based, making specific reference to section 120 of the Planning Act 2008?	<p>Section 156(1) of the Planning Act 2008 ('the Act') states that if an order granting development consent is made in respect of any land, the order has effect for the benefit of the land and all persons for the time being interested in the land.</p> <p>However, section 156(2) of the Act states that subsection (1) is subject to "any contrary provision" made in the order.</p> <p>As explained in the Explanatory Memorandum (Document Reference 3.2 , PINS Document Reference APP-006), article 47 is such a contrary provision.</p> <p>The Applicant notes that provision for such an article was included in article 5 of the now-repealed Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 ('the Model Provisions'), indicating that the government expected that applicants for development consent under the Act would include such a provision within their draft Orders.</p> <p>The Applicant considers that the basis for article 47 (of the Applicant's draft development consent order) and the basis for article 5 in the Model Provisions is the power in subsection 120(5)(a) of the Act, which permits</p>

ExQ	Question to	Question	Response
			<p>an order granting development consent to "apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the order".</p> <p>It is in this context that the need for, and the power underlying, article 47 arises.</p>
4.10	The Applicant	With regard to Article 50, can the Applicant provide more justification as to why the consent of the Secretary of State is not required in respect of the transfer of the benefits of the Order?	<p>The Applicant considers it highly unlikely that circumstances would arise in which there was a need for the benefit of this article to be transferred to a third party. This is because the rights, powers and duties of the undertaker under the Highways Act 1980, the Town and Country Planning Act 1990 and the New Roads and Street Works Act 1991 relate specifically to the Applicant's role as the highway authority for the County of Suffolk. As such, the purpose of including article 50 in the draft development consent order is to ensure that the authorised development, once constructed, can be properly integrated into the existing highway network.</p> <p>Notwithstanding the context set out above, if a situation was to arise in which the transfer of the functions referenced in article 50 were to arise, it is the Applicant's understanding that the consent of the Secretary of State would be required. An exception, where this requirement would not apply (further to article 48(4)), is in the case of a transfer between the Applicant and the harbour authority or the harbour master. Such a transfer would not be appropriate in relation to article 50 however, as the functions to which article 50 relates</p>

ExQ	Question to	Question	Response
			would be incompatible with the nature and extent of the statutory powers of the harbour authority under Schedule 3 to the Transport Act 1981.
4.11	The Applicant	With regard to Article 52, can the Applicant explain which vehicles will be exempted in relation to traffic regulation measures?	In relation to article 52, the vehicles which would be exempted in relation to the traffic regulation measures provided for by article 52(1)(a) (speed limits) are vehicles used for naval, military or air force purposes (see regulation 3(4) of the Road Traffic Exemptions (Special Forces) (Variation and Amendment) Regulations 2011 ('the Regulations')), on occasions when such a vehicle is being driven by a person subject to the orders of a member of the armed forces or the Crown, on an occasion when the person driving the vehicle is a member of the special forces and the vehicle is being driven in response, or for practice in responding, to a national security emergency by a person who has been trained in driving vehicles at high speeds, or when the vehicle is being driven for the purpose of training a person in driving vehicles at high speeds (per Regulation 3(5) of the Regulations).

ExQ	Question to	Question	Response
4.12	The Applicant	With regard to Article 55, can the Applicant confirm that all statutory references are updated in relation to proceedings in respect of statutory nuisance (section 65 of the Control of Pollution Act 1974 has been repealed by the Deregulation Act 2015)?	The Applicant can confirm that the statutory references are up to date in this article.
4.13	The Applicant	Will the Applicant be submitting further Protective Provisions for the safeguarding of the railway during the course of construction in accordance with the expectations of Network Rail's 'standard Protective Provisions' [RR-021]?	The Applicant is in discussions with Network Rail on the Protective Provisions which are, with very minor modifications, in a standard form. The Applicant has put forward a proposal to address Network Rail's concerns and it is hoped this matter can be quickly resolved.

Appendix A. Question 1.1 Explanatory Table

The below draft table explains the relationship between:

- ES parameters of assessment; and
- DCO limits of deviation.

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
Pier cross sectional area	<p>Pier area of 180m² +50%.</p> <p>The FRA (Appendix 18A) concludes that there are no significant effects arising from the introduction of two piers of 180m² each in Lake Lothing or if their sizes were increased by 50%.</p>	<p>Work No.1D (part):</p> <p>Lateral LoDs are as stated in DCO article 5(4) – i.e. works must be carried out within the areas prescribed by article 5(5). The size and location of the areas identified in article 5(5) have been determined by reference to the relevant ES parameters of assessment.</p>	<p>The DCO LoDs are within the parameters of what has been assessed in the ES. The ES has assessed two piers on the basis of the cross-sectional area they would occupy within the waters of Lake Lothing. The cross-sectional areas of the piers are relevant to the assessment of the impacts of the piers on flooding and flood risk. (NB: the text in Table 5-2 of the ES contains a typographical error: the cross-reference to the area of the piers assessed for the purposes of the Flood Risk Assessment (FRA) (Appendix 18A to the ES) is 180m² rather than 140m²; this has been amended in column 2 to this table.).</p> <p>In this context, DCO lateral/horizontal LoDs apply: relevant lateral LoDs are as provided for by DCO articles 5(4) and 5(5) (see column 3 of this table) and the area of the piers (as assessed in the ES) fits within (and is significantly smaller than) the areas defined by article 5(5).</p> <p>The DCO would not permit the cross-sectional area of the piers to exceed the area that has been assessed in the ES: for example, the piers could not occupy the whole of the areas defined in article 5(5) as such development would exceed the relevant ES parameters of assessment and would not be in accordance with the FRA, which,</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
			<p>by virtue of its forming part of the ES, is a certified document (see the main response to ExQ 1.1 regarding the role of certified documents in setting the terms on which development consent is granted).</p> <p>The exact locations of the two piers within the two areas defined by article 5(5) is immaterial to the assessment in the ES, because the flood model would give the same results irrespective of the distance between each pier and its respective quay side, provided that the piers were located within the areas defined by article 5(5).</p> <p>Incidentally, for the purposes of assessment in the ES there is no distinction between piers and piles - all form part of the same structure for assessment purposes and it is the area of that structure which has informed the ES parameters of assessment. The Flood Risk Assessment (ES Appendix 18A; APP-203) assumes that the pier extends for the full height of the water column.</p>
Cofferdams (steel piled)	Two steel piled cofferdams have been assessed, although the Scheme may be built without the need for cofferdams. These	<p>Work No. 1D (part):</p> <p>Lateral LoDs are as stated in DCO article 5(4) (see above), such that the areas defined in article 5(5) are of relevance to the positioning of any cofferdams used.</p>	<p>The DCO LoDs (referenced in column 3 of this table) apply to the permanent works set out in the description in DCO Schedule 1 of Work No. 1D (see paragraphs (d)(i)-(vi)); those works do not include the cofferdams, on the basis that they would only be temporary and do not form part of</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
	could project into Lake Lothing to a maximum as far as the navigational channel upon operation i.e. leaving a 32m distance for navigation at all times.		<p>the structure that is Work No.1D.</p> <p>That said, as is demonstrated by ES Figure 5.6 [APP-140], the parameters within which the cofferdams have been assessed in the ES correspond to the DCO LoDs provided in article 5(5), in terms of the maximum cross-sectional areas which could be occupied by the cofferdams, and in article 5(4)(b), which requires the width of the navigable channel within Lake Lothing to be safeguarded by the preservation of a distance of no less than 32 metres between the areas defined in article 5(5).</p> <p>In addition, the Flood Risk Assessment [ES Appendix 18A; document references 6.3 and APP-203] and the Code of Construction Practice [ES Appendix 5A; document references 6.3 and APP-163; updated at Deadline 3 - document reference SCC/LLTC/EX/28] include constraints on the size and location of cofferdams.</p>
Northern roundabout Diameter Inscribed Circle	The northern roundabout has an ICD of 50m and a tolerance of ± 5 m	<p>Work No. 1A (part):</p> <p>Lateral LoDs are as shown on the Works Plans and as set out in article 5(3)(b) - i.e. Work No.1A must be constructed within the Order limits within which the centrelines of linear</p>	The ES parameters of assessment for the northern roundabout provide for a roundabout with an inscribed circle diameter (ICD) of 50m with a tolerance of ± 5 metres, such that the roundabout must be no larger than 55m in

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
Diameter (ICD)		<p>Work No.1A are shown.</p> <p>Vertical LoDs are as stated for Work No. 1A in the table within DCO article 5(6) – i.e. upwards by 1 metre and downwards by 1.5 metres.</p>	<p>diameter and no smaller than 45m in diameter (to accord with relevant standards in the Design Manual for Roads and Bridges (DMRB)).</p> <p>In terms of relevant DCO LoDs:</p> <ul style="list-style-type: none"> laterally/horizontally, the northern roundabout is required to be delivered within the LoDs set out in article 5(3)(b) (see column 3 of this table). The size of roundabout which has been assessed in the ES fits within these DCO lateral LoDs; vertically, the whole of Work No. 1A (of which the northern roundabout forms part) is subject to the LoDs set out in DCO article 5(6) (see column 3 of this table). The ES assessment was carried out on the basis of relevant topic-based assessment, i.e. landscape and visual impact; and, as such, the height of the roundabout was considered within its setting in relation to the height of the new bridge; in that context, any change in height within the DCO limits of deviation would be immaterial to the findings of the assessment in the ES. <p>Application of the lateral/horizontal DCO LoDs will</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
			be subject to the DCO requirement (in Schedule 2 to the DCO) for the authorised development to be delivered in general accordance with the General Arrangement Plans (see Sheet 1 thereof: Document Reference 2.2 / APP-014 (updated at Deadline 3 to SCC/LLTC/EX/20)).
Southern roundabout Diameter (ICD)	The southern roundabout has an ICD of 50m and a tolerance of ± 2 m	<p>Work No.2 (part):</p> <p>Lateral LoDs are as shown on the Works Plans and as set out in article 5(3)(b) - i.e. Work No.2 must be constructed within the Order limits within which the centrelines of linear Work No.2 are shown.</p> <p>Vertical LoDs are as set out in article 5(6) - i.e. upwards by a maximum of 0.5 metres and to any extent downwards.</p>	<p>The ES parameters of assessment for the southern roundabout provide for a roundabout with an inscribed circle diameter (ICD) of 50m with a tolerance of ± 2 metres, such that the roundabout must be no larger than 52m in diameter and no smaller than 48m in diameter (to accord with relevant DMRB standards).</p> <p>In terms of relevant DCO LoDs:</p> <ul style="list-style-type: none"> laterally/horizontally, the northern roundabout is required to be delivered within the LoDs set out in article 5(3)(b) (see column 3 of this table). The size of roundabout which has been assessed in the ES fits within these DCO lateral LoDs; vertically, the whole of Work No. 1A (of which the northern roundabout forms part) is subject to the LoDs set out in DCO article 5(6) (see column 3 of this table). The ES assessment was carried out on

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
			<p>the basis of relevant topic-based assessments, e.g. landscape and visual impact, and, as such, the height of the roundabout was considered within its setting in relation to the height of the new bridge; in that context, any change in height within the DCO limits of deviation would be immaterial to the findings of the assessment in the ES.</p> <p>Application of the lateral/horizontal DCO LoDs will be subject to the DCO requirement (in Schedule 2 to the DCO) for the authorised development to be delivered in general accordance with the General Arrangement Plans (see Sheet 2 thereof: Document Reference 2.2 / APP-015).</p>
Road Carriageway gradient along centre line of road	A maximum of 6% and a minimum of 0%.	<p>Work Nos. 1, 2, 3, 4 and 5</p> <p>Lateral LoDs are as shown on the Works Plans and as set out in article 5(3)(b) - i.e. linear works must be constructed within the Order limits within which their centrelines are shown.</p> <p>Vertical LoDs are as set out in article 5(6), including, where relevant, in the table in article 5(6) - i.e.</p> <ul style="list-style-type: none"> for Work No.1 the upwards LoD is 1 metre; for Work Nos. 2, 3, and 4 it is 	<p>The gradients referenced in Table 5-2 of the ES provide parameters within which the vertical design of the Scheme is to be developed. More specific prescription is provided in the DCO vertical LoDs (which are as set out in column 3 of this table).</p> <p>For the numbered works which are highway works (Work Nos 1-5, see column 3 of this table), the vertical DCO LoDs are referenced to the finished road level as shown on the Engineering Section Drawings - see for example Document</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
		<p>0.5 metres; and for Work No.5 it is 1.5 metres.</p> <ul style="list-style-type: none"> for the various elements of Work No.1 the downwards LoDs are set by the table in article 5(6) and range between 1.1 and 4 metres); for Work Nos. 2, 3, 4 and 5 the downwards LoD is to any extent downwards as may be necessary or convenient. 	<p>Reference 2.9 - Mainline Sheet 1 of 2 [APP-040]. Incidentally, in the interests of increased clarity, the Applicant proposes to update Mainline Sheet 2 of 2 [APP-041] to show more explicitly how the LoDs in DCO article 5 relate to the finished road levels shown on that drawing; it is anticipated that the revised drawing will be submitted at Deadline 4.</p> <p>In terms of the relationship between those specific DCO LoDs and the assessments reported in the ES, the latter were carried out through relevant topic-based assessments, e.g. noise and air quality, and visual impact; in this context a change in the height of the finished road level, within the range prescribed by the DCO upwards/downwards vertical LoDs, would be immaterial to the findings of the assessments. This is because, in terms of noise and air quality impacts, the variations in finished road level permitted by the DCO vertical LoDs would make no material difference to the effects of the impacts on the receptors.</p> <p>By way of further explanation, if, for example, an impact having effect at a distance of 100m from a receptor was to be raised up by 1.5 metres into the air, it would actually increase the distance between the source of the impact and the</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
			<p>receptor (by 1.1cm). In relation to the Scheme, such a variation would be inconsequential in terms of noise and air quality impacts and accordingly, the height of the scheme (within the limits of deviation) is immaterial to the findings of the assessments reported in the ES.</p> <p>In terms of visual impact, as explained above (in relation to the northern and southern roundabouts) the finished road levels of these numbered works (see column 3 of this table) were assessed in the context of the Scheme as a whole, including in relation to the height of the new bridge. As is explained in the ES (see para 6.3.17), "...the ZTV (zone of theoretical visibility) and the photomontages in Figures 10.6 to 10.20 are based upon the reference design (see paragraph 5.2.8) although the assessment in this chapter (Scoping and Introduction to Environmental Assessments) [would be] unaltered should the limits of deviation in Table 5-2 be required".</p> <p>Incidentally, the assessment of the XYZ coordinates used in the ZTV for the two counterweight blades of the new/Scheme bascule bridge (in both the open and closed positions) is</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
			<p>based upon the reference design of the Scheme (see ES paragraph 10.3.27), and similarly, (as is explained in paragraph 10.3.27) it is the case that if the detailed design were to extend to the full scope of the limits of deviation provided for in the DCO, the findings of this assessment would be unaltered.</p> <p>With regard to Work No.5, the Flood Risk Assessment (ES Appendix 18A, document reference APP-202) has identified that the Scheme will result in a decrease in flood level in this area of between 20mm and 100mm and therefore it is concluded that the introduction of a raised access road up to the vertical LoD would not be material to the findings of the assessments.</p>
Fender	A minimum of 16 approach fenders, 10 in the passage, but this could be upgraded to a complete barrier with	<p>Work No.1D (part):</p> <p>Lateral LoDs are as stated in DCO article 5(4) – i.e. fenders must be provided within the areas prescribed by article 5(5).</p> <p>Vertical LoDs are identified by reference to the</p>	<p>The scope of fender design assessed in the ES would need to be delivered in accordance with the DCO LoDs (as set out in column 3 of this table).</p> <p>The ES parameters of assessment are designed to accommodate a 'worst case' in terms of fender</p>

Element of Scheme (1)	ES parameters of assessment (2)	DCO limits of deviation ('LoDs') (3)	Commentary (4)
	no gaps in it along the profile	levels shown in the Engineering Section Drawings and are as stated in DCO article 5(6) – i.e. upwards by 1 metre and downwards by 2.5 metres, save in relation to the piles which are subject to the LoDs set out in article 5(7)(a) – i.e. downwards to any extent which is necessary or convenient.	<p>design, i.e. a design based on a complete barrier protecting the piers, as distinct from the row of detached plates shown in the photomontage in ES Figure 10.8.</p> <p>Relatedly, the Piling Risk Assessment is not specific to the location or number of the piles that are proposed but rather it has considered universally how piles would need to be installed as part of the Scheme and has assumed that they would be sunk within the broad area of where they are required. To that end, whether a greater number are drilled or whether they are moved from their location on the reference design to elsewhere is immaterial to the piling risk assessment in that, within the areas where piling is expected to be required, the geology is relatively uniform, such that there are no areas where a different piling approach would be needed or where piling would not be possible.</p>

Appendix B. Navigation Working Group Report (12 December 2018) and Scheme of Operations consulted upon



Lake Lothing Third Crossing

Navigation Working Group Workshop 3

On behalf of Suffolk County Council

January 2019

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1. Introduction

Suffolk County Council (SCC) is conducting an extensive and detailed stakeholder engagement on proposals for a new crossing over Lake Lothing in Lowestoft. As part of that process they have created a Navigation Working Group/'the group' to help ensure that the views of the maritime community are well represented in the process and that impacts can be minimised, and benefits maximised.

Meeting Place Communications were commissioned as an independent Chair of the NWG, scheduled to meet three times during the project development process. The group met in November 2017, May 2018 and December 2018 and will meet again on future occasions to review and inform key elements of the project.

This report follows on from those issued after the first and second meetings of the group and details the discussions which took place at the third meeting on 18 December 2018.

All members of the group were provided with a copy of this report before it was finalised as a true and accurate records of proceedings.

2. Project overview

SCC is proposing a new crossing over Lake Lothing in Lowestoft. The existing bridges over the lake at Mutford Lock and the A47 Bascule Bridge are inadequate to meet current and future traffic demand. Delays and congestion are a common occurrence for drivers, particularly during peak hours and pedestrians and cyclists often have long and difficult journeys as they travel across the town.

A new crossing will open up opportunities for regeneration and create a new link between north and south Lowestoft. This new crossing presents an opportunity to introduce a focal point for the town enhancing its identity. This will help regenerate the area and attract new investment in the local economy.

The Lake Lothing Third Crossing (LLTC) consists of a multi span single carriageway bridge from Waveney Drive to the south side, to Peto Way on the north side. The section of the bridge over the lake has been designed higher than the existing Bascule Bridge, which will reduce the need to open it. The crossing includes provision for pedestrians and cyclists.

The proposed design includes new roundabouts to the north and south of the lake to help connect the traffic smoothly into the existing road network as well as public spaces for people to enjoy. Changes to the road layout include a new access from Waveney Drive to Riverside Business Park and closure of Durban Road at its junction with Waveney Drive.

It is important that the proposals enable the Port of Lowestoft to continue to operate efficiently for the benefit of recreational users and success of businesses reliant on Lake Lothing.

SCC recognises that introducing new and substantial structures to a navigable waterway will have a number of impacts on the environment and on users of those waterways. SCC is committed to exploring those issues thoroughly and where impacts are identified, seeking to mitigate them as far reasonably practicable.

There are a number of constraints the project is working within including highway design standards and the requirements of statutory undertakers (including Network Rail and the Stautory Harbour Authority, ABP) and SCC is seeking to best mediate between the interests of users of the crossing and users of the water, while also minimising impacts on the environment and landowners.

3. Navigation Working Group

3.1 Purpose

The purpose of the NWG is to fully document questions and any concerns to ensure the views of the maritime community are properly represented in the project design process. The terms of reference were agreed at the first meeting and can be seen at Appendix A.

Details of those who attended, were invited to attend, or submitted written representations to the third meeting can be found in Appendix B.

3.2 Navigation Working Group meetings

The first meeting took place in November 2017, the second meeting took place in May 2018, and the third in December 2018. All meetings are conducted on a Chatham House rules basis and no comments are attributable to any one individual or organisation. Comments are accepted on a 'without prejudice' basis to representations that might be made to the Planning Inspectorate.

4. Workshop 3 – December 2018

4.1 Meeting format

On Tuesday 18 December 2018 the third meeting of the group took place at the Suffolk County Council and Waveney District Council offices at Riverside in Lowestoft.

In addition to members of the group, the following people were in attendance:

- Sereena Davey – Meeting Place Communications – Working Group Chairperson
- Michael Wilks – Consenting Manager – Suffolk County Council
- Katherine Potts – Consultation Officer – Suffolk County Council
- Stephen Horne - Principal Engineer (Maritime) – WSP
- Mike Hodgson – Chief Engineer - BAM Nuttall
- Scott Thompson – Project Manager - BAM Nuttall

After introductions, the Chairperson summarised the group's advisory role, the terms of reference and the process for reviewing and approving minutes of the meetings. The group then listened to a project update presentation from Michael Wilks and an introduction by BAM Nuttall to their role as the newly appointed engineering contractors for the project. Participants were encouraged to ask questions throughout this session.

The group then undertook a substantive and detailed exercise - led by the Chairperson - to examine the draft Scheme of Operation which had been circulated to participants in advance of the session. Recommendations for edits, amendments and additions were noted and the SCC team agreed to recirculate a marked-up draft capturing the comments made by NWG participants alongside the minutes of the meeting. SCC would then review and reflect on the suggestions before submitting an updated draft to the Examination, alongside meeting minutes for the Deadline of January 8 2019.

The next agenda item was a presentation by Stephen Horne on the development of the Navigation Risk Assessment (NRA), followed by a short Q&A.

Michael Wilks then gave the group a brief overview of the examination process and the questions which had been provided by the examiner to SCC (and other specific attendees of the NWG) the day before the third NWG workshop on Monday 17 December. The group had a brief discussion on one area of the questions to help inform SCC's response.

Finally, the session concluded with thanks to the attendees for once again giving their time and a brief summary of the methodology of how the NWG will continued to be informed and consulted during the next phase of the project.

4.2 Project and construction update presentation

Consenting Manager, Michael Wilks provided a project update to the group which reviewed the programme timetable and the examination process. Michael encouraged the group to review the recently released questions from the examiner and to respond before the deadline of 8 January.

Michael then introduced the team from BAM Nuttall explaining that as they had only recently been appointed, they were unlikely to be able to answer the group's specific questions at the meeting. He confirmed there would be future occasions when the group could discuss detailed construction matters with BAM Nuttall, but that it was helpful for the group to meet the contractors as early as possible in the process.

Mike and Scott from BAM then gave the group an overview of their company's experience on relevant schemes across the UK and explained that the project would be run from their Shipdham office in Norfolk, with many of the staff being locally based.

Michael then outlined a summary of the representations made to the Examination before reviewing the purpose of the Development Consent Order (DCO) in detail. He confirmed that the DCO would:

- Extinguish rights of navigation in some areas
- Provide for the creation of new byelaws
- Provide for the development of a 'Scheme of Operation' for the new bridge
- Provide for the updating of the NRA at certain times/in certain circumstances

The group were shown an image of the area where rights of navigation would be extinguished and a brief overview of how the 1993 byelaws would be amended to cover both maritime and terrestrial (i.e. behaviour of people on the bridge) matters.

The group then discussed the following:

- Usage of the Nexen quay – The owners have stated they have previously leased moorings here but the group concluded that they believe to have last been used well over a decade ago, and noted the lack of water here.
- Ownership of the lake bed around Nexen, Waveney District Council's and Lings' land.

4.3 Group discussion on Scheme of Operation

The DCO provides for the creation of a Scheme of Operation. A draft version written by SCC had been circulated to the group in advance of the meeting and participants were given hard copies and additional time to review the draft during the meeting prior to the detailed discussion. Michael also explained that the current draft DCO (as submitted to the examination) is being updated to reflect the process described below.

The new Scheme of Operation is proposed to be created under Article 40 of the DCO which also allows for variation of the Scheme of Operation, subject to:

- Review of the NRA
- Consultation with Statutory Harbour Authority
- Consultation with the NWG
- Approval from the Secretary of State

The proposed draft contained 11 individual items with an overarching notes section at the beginning. The draft was informed by the 2018 Small Craft and Yachts Notice which is applied by the Statutory Harbour Authority (SHA) to the existing A47 Bascule Bridge. The principal change is the more formal peak hour opening restrictions with exceptions for tidally restricted craft. The group were asked to consider if all the provisions were clear and if they conveyed all the necessary information.

The notes below detail the discussion and suggestions of the NWG on each of the items. A marked-up version of the Scheme of Operation reflecting the comments made during the meeting was circulated to and agreed as a true record of the discussion by the NWG before being included in this report. This version can be seen in Appendix C.

4.3.1 Opening notes section

The group discussed that while the Scheme of Operation was being drafted by SCC in consultation with the SHA and the NWG, ultimately it would be determined by the Secretary of State (SoS). It was therefore considered important that flexibility was built in to the final version to allow for locally determined decisions and actions to be taken without the need for reference back to the SoS. The NWG felt this particularly important as for some of the items, it was not possible to tell what the final arrangements would need to be until the LLTC had been in operation for a while, and therefore the

Scheme of Operation had to be adaptable to reflect the actual working conditions which may arise. It was agreed that if the Scheme of Operation were worded too tightly it would not allow for such mutually agreed flexibility at the local level.

The suggestion from the NWG as to how this could be built in to the Scheme of Operation, was that wording were included which ensured the SoS only had to arbitrate where there is disagreement between SCC and the SHA - this is reflected in the marked-up version shown at Appendix C.

It was also suggested that the Scheme of Operation should be kept under review with the maritime community and that the annual SHA port user groups might be an appropriate medium for raising any suggestions for changes, with Extraordinary meetings called if substantive changes to the Scheme were required between the annual meetings.

It was suggested that in order to clarify responsibility, a minor wording change from “bridge operator” to “LLTC Bridge Operator” should be applied throughout.

4.3.2 Commercial on-demand openings

The group had a lengthy discussion about appropriate notice periods required for on-demand openings (for commercial and recreational vessels) and concluded it would be better not to fix a specific time within the Scheme of Operation (original draft suggested 20 minutes), but to allow the SHA to determine the time required and publicise this as appropriate. The version shown in Appendix C reflects this recommendation.

4.3.3 Time restrictions

The NWG raised concern that the draft wording extended the windows of restriction for commercial vessels at the A47 Bascule bridge for those vessels needing to transit the entire lake, because currently the period in which movements are discouraged is only 45 minutes out of an hour (e.g. 08.15-09.00 and 17.00-17.45) (the NWG was unaware as to why this was the case). The 4-knot port speed restriction would mean that outbound vessels from western end of Lake Lothing would now not reach the Bascule Bridge until several minutes after the hour (i.e. 9am or 6pm).

4.3.4 Recreational vessels using commercial openings

See section 4.3.2.

4.3.5 Scheduled openings

It was explained by an NWG member that the scheduled openings derive from stakeholder engagement some years previously, reflecting the operations of businesses at that time, for example the move to a 24-hour schedule came with the development of the Shell Base. Nevertheless, the NWG agreed that the current opening times generally work. As covered in section 4.3.2, the group recommended the required notice period for a bridge lift be determined and publicised by the SHA directly rather than prescribed in the Scheme of Operation to allow for flexibility as usage patterns become apparent.

The substantive discussion was how applying the same opening windows to both bridges would work in practice, given there was obviously a transit time between the two, and in some cases there may need to be a 'double opening' of one bridge (see below). SCC outlined this was the purpose of the insertion of the word 'approximately' but agreed this needed to be considered further.

The group also discussed the usage and effectiveness (or otherwise) of signage for road users about upcoming bridge opening times, and for vessels about both bridge openings and air draught clearance. Both matters have been raised at previous NWG meetings and will need to continue to be discussed as the scheme develops. SCC noted a highway signing strategy would also be developed for the Scheme.

The overriding conclusion was that this section - 'Scheduled openings' - was the one with most potential to require change once the LLTC is operational and traffic and vessel movement patterns are better understood. Therefore, subject to the amendment regarding the amount of notice required for an on-demand bridge lift (see section 4.3.2), this section was generally deemed fit for purpose as far as is possible at this stage, notwithstanding that SCC would consider if the drafting could be improved.

4.3.6 Waiting pontoon

No comments.

4.3.7 Navigation through the LLTC

A minor wording change from "leaves are fully raised" to "bridge fully open" was agreed.

4.3.8 Flotillas

Again, for the purposes of clarifying responsibility it was agreed to change "Lowestoft Harbour Control" to "Port Control" and "bridge operator" to "LLTC bridge operator".

4.3.9 Height clearance when closed

This paragraph was considered overly complicated.

Due to ongoing concerns about vessels users understanding their air draught, it was recommended that the Scheme of Operation did not state what clearance small vessels would have, but rather state what clearance the bridge would have at Highest Astronomical Tide, and further that reference could be made to an SHA publication providing further guidance on this.

There was a debate about whether vessels who may be able to drop masts and aerals to clear the LLTC should be *required*, or *requested*, to do so. The NWG agreed that whether they were able to do so safely should be taken into consideration and the role of the LLTC bridge operator and margin of safety advertised by the harbour authority should be accounted for. The wording as shown in Appendix C reflects those suggestions and provides for a degree of flexibility at the discretion of the SHA.

4.3.10 Double openings

The NWG had a substantive discussion about two-way movements and the possibility of one bridge having to open twice to accommodate all vessel movements. It was suggested that it might be preferable that the Bascule Bridge open twice as there would be less vehicular traffic on it and might have a quicker cycle time, but at this stage flexibility was important.

SCC confirmed that this Scheme of Operation can only direct the SHA in respect of the Scheme, as it was not proposing to alter the operating regime for the Bascule Bridge. The NWG recommended the removal of the words “in swift succession” to avoid any confusion as to what length of time this referred to.

4.3.11 Adverse weather conditions

The group raised some concerns about being able to determine what ‘adverse weather conditions’ are likely to cause issues without knowing the final design of the bridge. SCC explained the provision was to give the Harbour Master discretion where adverse conditions combined with a bridge lift could unacceptably compromise navigation conditions for certain vessels.

SCC confirmed that the design specification will be advised to the Bridge Operator and will inform the finalisation of the NRA.

4.3.12 Risk of vessels being trapped in Inner Harbour

A number of scenarios were discussed where a large commercial vessel could get trapped in the Inner Harbour and this needed to be considered in the NRA. One mitigation option would be an Emergency Berth, another would be to permit the simultaneous lift of both bridges. The NWG discussed the challenge of ensuring that the bridges lift as little as possible given their underlying purpose is to improve traffic flow.

The group asked Stephen Horne to advise on the likelihood of double lifts and while he was unable to provide figures because it would depend on how busy the port became, the nature of vessels transiting and other factors including meteorological conditions and berth occupancy, he expected it to be infrequently. The group speculated it might be once a month.

There was an inconclusive discussion about whether an emergency berth could, or should, be provided between the two bridges to assist with such situations.

4.3.13 Emergency response

The group recommended that the Scheme of Operation must include an additional item which covered the need for emergency openings and closings which would override any other schedule. An opening could be required for the passage of an emergency vessel on the water, or a closing required for an emergency vehicle to pass across the bridge. It was agreed that the type of emergency or vessel/vehicle would not be listed so as not to accidentally exclude any unforeseen scenarios. This additional item can be seen in the version as shown in Appendix C.

4.3.14 Other items

The Chairperson asked the group if there were any other themes or items they wished to see added to the Scheme of Operation and the group confirmed that everything required had been covered in the 12 discussed items.

4.4 Navigation Risk Assessment (NRA)

4.4.1 NRA update

Stephen Horne gave the group an update on the production of the NRA including the points in the process when the NWG and SHA have been, and will continue to be, consulted on the content.

He outlined how each risk is identified and graded against a matrix of likelihood and severity. Those in dark green are considered slight risks, light green are low risks, yellow are moderate risks, orange are high risks, and red are intolerable risks.

	Minor	Serious	Major	Severe	Catastrophic
Remote	1	2	3	4	5
Unlikely	2	4	6	8	10
Possible	3	6	9	12	15
Likely	4	8	12	16	20
Frequent	5	10	15	20	25

The likelihood of each risk has been considered over the lifetime of the project which is considered as 120 years in the case of the LLTC.

4.4.2 Questions and comments arising from update

The group discussed examples of pollution incidents whereby a Tier 1 event can be dealt with by the SHA, a Tier 2 can be dealt with by a contractor under the control of the SHA, and a Tier 3 is an event of such severity that national assistance is required.

The NWG confirmed that it understood the process and direction of the NRA, and while not raising any particular concern at this point, did want to record that the overriding concern of the maritime community remains the risks associated with the construction period, rather than the operating period.

BAM confirmed to the group that they will work closely with the SHA and provide as much notice of works as possible. It was also suggested that updates should be communicated through as many channels as possible including:

- Notice to Mariners
- LLTC website (as downloadable PDFs)
- Safety broadcasts from SHA on VHF14
- Communications from local groups to their memberships

There was also a request from the group that the NRA include non-water based threats such as suicide attempts or inappropriate behaviour around the bridge area.

4.5 Questions from Examination

Michael provided an overview to the group of the process of the questions from the Examination and some of the issues raised. The group were asked for their input to the SCC response on three specific questions regarding mitigation needed during the period when the new bridge structure is lifted into place and temporary restrictions are placed on navigation rights.

The questions for discussion were:

1. *What mitigation measures is the Applicant able to put in place to mitigate the closure of the western harbour to recreational and cruising craft over the summer closure period?*
2. *Do such measures include modifications to the programme to minimise the closure period, reducing the current three-week closure period?*
3. *Has consideration been given to temporary berthing facilities below the proposed bridge location for the duration of the closure period?*

Before the group debated the matters, Michael confirmed that the “three-week” closure period in the summer cited in the application had been based on a worst-case scenario for the Environmental Impact Assessment (EIA), but that BAM may not require that amount of time.

During the discussion, BAM were asked to confirm if they thought this was the likely period of closure and when this might occur. They outlined that it was too early to comment on either length or timing of the closure, but whenever it occurred several months’ notice would be provided. All acknowledged that the worst case would be a full three-week closure in the height of the summer season for recreational vessels, but all appreciated that the project is not advanced sufficiently for anyone to be able to provide any reliable predictions at this stage.

Comments and ideas by the NWG for mitigation included:

- Putting pontoons at the eastern end of the Inner Harbour ahead of the three-week closure period to enable vessels to use temporary arrangements (other members of the group were concerned about this suggestion due to: lack of connectivity to shore; need for a marine license; lack of water; and only available land being in third party ownership)
- Small boats ‘nipping’ through gaps during construction period would be inadvisable for safety reasons and setting a precedent for the post construction (operating) period

- Investigating possibility of temporary mooring at Royal Norfolk and Suffolk (group discussed that this may only be possible in winter and that the installation of flood barriers and cranes may interfere)

4.6 Additional items discussed

Before closing the meeting, the Chairperson asked the NWG if there were any other items the group wished to discuss.

The upcoming site visit by the Inspectors was raised and members of the group offered suggestions as to what locations should be included on the itinerary proposed by SCC. Detailed notes were taken by the SCC team who will incorporate the NWG suggestions into their recommendation for key viewing areas. It was noted however, that the Inspectors do not have to adhere the itinerary suggested by SCC.

5. Conclusions and next steps

The third meeting of the Navigation Working Group provided another opportunity for the maritime community to understand more about the proposals for a Third Crossing of Lake Lothing and for SCC to have a detailed dialogue with this stakeholder group.

The project team will consider all the detailed feedback provided at the meeting and in subsequent communications and integrate this into the next stage of the process where possible.

The NWG will now be formally constituted as part of the Development Consent Order with identified roles in both the construction and the operation of the scheme.

6. Appendices

Appendix A – Adopted Navigation Working Group Terms of Reference

Lake Lothing Third Crossing - Navigation Working Group

Terms of Reference

Purpose:

A working group to facilitate:

- The exchange of information on the navigational considerations associated with the proposed Lake Lothing Third Crossing
- The development of a Navigational Risk Assessment for the Lake Lothing Third Crossing

Membership

Membership is as listed in Appendix 1.

Membership will be kept under review by Suffolk County Council.

Membership has been compiled to capture the interests of:

- Statutory Harbour Authority, Associated British Ports
- Organisations representing recreational interests which are conducted within the area of the project
- Organisations representing boating communities which frequent the area affected by the project
- Organisations representing business interests around the area of the project

Member organisations are asked to coordinate views from within their membership and bring together, as far as possible, a representative view of the organisation.

Substitutes are permitted at meetings.

Chairperson

The Working Group will be chaired by Sereena Davey of Meeting Place Communications (MPC), an organisation paid for, but independent of, Suffolk County Council.

A meeting note will be produced by MPC after each Working Group and shared with the membership.

Confidentiality

For the Working Group to be effective, SCC will wish to share early thinking on various matters with the Working Group for feedback. SCC considers this information to be confidential.

Appendix B – Navigation Working Group membership

The following individuals and organisations were invited to attend the workshop on Tuesday 18 December. Those who were unable to attend were invited to submit feedback after the event.

Those marked with an asterix (*) either attended the event or submitted written feedback.

	Organisation	Member	Position
1	ABP	Richard Musgrove* Gary Horton*	Marine Manager Harbour Master
2	Boston Putford Offshore Services		
3	Broads Authority	Rob Rogers	Director of Operations
4	Eastern marine Services	Dave Howells	
5	Fendercare		
6	James Fisher Marine		
7	Lowestoft and District Canoe Club	Ric Pond	
8	Lowestoft Cruising Club	Paul Gray* and David Bennett*	
9	Lowestoft Harbour Maritime Businesses Group/Excelsior Trust	John Wylson	Chairman/Director
10	Lowestoft Haven Marina	Robert Beare	Marina Manager
11	Lowestoft Rowing Club	Paul Gurbutt	Chairman
12	Lowestoft Town Council	Dick Houghton and Peter Byatt	Councillors
13	Oulton Broad Parish Council	Ben Falat* (attended in both capacities)	
14	Royal Norfolk and Suffolk Yacht Club	Ruth Davis	
15	Royal Yachting Association	Ben Falat* (attended in both capacities)	

16	Trinity House		
17	Waveney and Oulton Broad Yacht Club		
18	Windcat workboats	Richard Clarke	General manager
19	RNLI	Henry Carter	Lifeboat Operations Manager
20	International Boat Building Training Course	Mike Tupper	
21	Sheader Marine	Paul Sheader* Gail Kingston*	

N.B. Since the first meeting, Lowestoft Marina have resigned from the group.

Appendix C – Scheme of Operation

1 Draft Scheme of Operation

1.1 Notes

- 1.1.1 This document is the Scheme of Operation referred to in article 40(1) of The Lake Lothing (Lowestoft) Third Crossing Order 2019 ("the Order").
- 1.1.2 As provided for by article 40 of the Order, the Scheme of Operation may be amended ~~with the consent of the Secretary of State following a proposal submitted by Suffolk County Council ("the Council") to the Secretary of State, provided that~~ after consultation with the Navigation Working Group, ~~and the harbour authority agrees to such changes. Where the harbour authority does not agree to such changes, those changes to the Scheme of Operation must be approved by the Secretary of State.~~
- 1.1.3 Article 40 of the Order requires the Council to operate the new bridge authorised by the Order ("the Lake Lothing Third Crossing") in accordance with the Scheme of Operation. The person appointed by the Council to operate the Lake Lothing Third Crossing ("LLTC") is referred to in this Scheme of Operation as the LLTC Bridge Operator.
- 1.1.4 The Scheme of Operation should be read alongside the provisions of the Order, and the Lowestoft Harbour Byelaws 1993 as amended by the Order, which make provision in relation to navigation, mooring and anchorage near and under the Lake Lothing Third Crossing New Bridge.
- 1.1.5 Words and phrases used in this Scheme of Operation, unless defined by it, have the same meaning as they have in the Order.

<u>1.</u> Commercial on-demand openings	The Lake Lothing Third Crossing will only be opened on demand for commercial shipping over 50 gross registered tonnage, requests for which are subject to the time restrictions in paragraph 2. A minimum of 20 minutes notice to the LLTC Bridge operator of the requirement for a commercial bridge lift should be given in accordance with the publicised requirements of the harbour authority, is required to facilitate a commercial bridge lift.
<u>2.</u> Time restrictions	<p>The Lake Lothing Third Crossing is not permitted to be lifted for any vessel during the hours of 08:00 to 09:00 and 17:00 to 18:00 on Mondays to Fridays, unless the Harbour Master determines that the vessel seeking an opening is 'tidally restricted' and notifies the <u>LLTC</u> Bridge Operator accordingly.</p> <p>For the purposes of this paragraph, a vessel is tidally restricted and thus may only be given an opening during peak hours if, due to its sailing draught or other navigational restriction, it is unable to proceed safely on that tide at a time outside of peak hours.</p>

Commented [MW1]: This marked-up version records the drafting suggestions and discussion points, as explained in further detail in the main report.

Commented [MW2]: NWG Suggestion: prefer arrangement whereby the SoS only has arbitrate where there is disagreement between SCC/ABP.

Commented [MW3]: NWG suggestion: Concern that 20 mins was too prescriptive and it made sense for ABP to simply advertise (separately) how much notice would be required.

Commented [MW4]: NWG comment here was that we are in effect prescribing extended windows of restriction at the A47 BB for those vessels needing to transit the entire lake (and need an LLTC bridge lift) (current discouragement is 08:15 to 09:00 and 17:00 to 17:45)

<u>3.</u> Recreational vessels using commercial openings	Small craft and yachts may use a Lake Lothing Third Crossing opening for commercial shipping provided that prior arrangement has been made with Lowestoft HarbourPort Control - VHF Channel 14, telephone 572286 or personal visit, subject to vessels proceeding in the same direction as the commercial vessel. Other vessels wishing to pass through the Lake Lothing Third Crossing from the opposite direction will have to wait for the next advertised small craft opening time, <u>as set out in paragraph 4.</u>																								
<u>4.</u> Scheduled openings	<p>In addition to paragraph 3, and subject to prior notification to the <u>LLTC</u> Bridge Operator <u>of at least twenty minutes in accordance with publicised requirements of the harbour authority</u>, small craft and yachts may be given a Lake Lothing Third Crossing opening at <u>approximately</u> the following times, having regard to concurrent demand at the A47 Bascule Bridge:</p> <table><tr><td>Monday to Friday</td><td>0 3 : : 0 0</td><td>0 5 : : 0 0</td><td>0 7: : : 0 0</td><td>0 9 : : 4 1</td><td>1 1 : : 5 5</td><td>1 4 : : 3 0</td><td>1 6 : : 0 0</td><td>- - : : 0 0</td><td>1 9 : : 0 0</td><td>2 1 : : 0 0</td><td>2 4 : : 0 0</td></tr><tr><td>Saturday, Sunday, Bank Holidays</td><td>0 3 : : 0 0</td><td>0 5 : : 0 0</td><td>0 7: : : 0 0</td><td>0 9 : : 4 1</td><td>1 1 : : 5 5</td><td>1 4 : : 3 0</td><td>1 6 : : 0 0</td><td>1 8 : : 0 0</td><td>1 9 : : 0 0</td><td>2 1 : : 0 0</td><td>2 4 : : 0 0</td></tr></table>	Monday to Friday	0 3 : : 0 0	0 5 : : 0 0	0 7: : : 0 0	0 9 : : 4 1	1 1 : : 5 5	1 4 : : 3 0	1 6 : : 0 0	- - : : 0 0	1 9 : : 0 0	2 1 : : 0 0	2 4 : : 0 0	Saturday, Sunday, Bank Holidays	0 3 : : 0 0	0 5 : : 0 0	0 7: : : 0 0	0 9 : : 4 1	1 1 : : 5 5	1 4 : : 3 0	1 6 : : 0 0	1 8 : : 0 0	1 9 : : 0 0	2 1 : : 0 0	2 4 : : 0 0
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<u>5.</u> Waiting Pontoon	Masters of vessels should be aware that a waiting pontoon for small craft and yachts is available to the east of the Lake Lothing Third Crossing for vessels awaiting a bridge lift. All vessels must maintain a listening watch on VHF14 and follow instructions from Port Control. Failure to maintain a close listening watch may mean missing the advertised lift. If late for a bridge lift inform the <u>LLTC</u> Bridge Operator, <u>as soon as possible.</u>																								
<u>6.</u> Navigation through the Lake Lothing Third Crossing	Navigation in the bridge channel is controlled by VHF advice with additional red and green "traffic lights" when the bridge is operated. Vessels must not proceed through the Lake Lothing Third Crossing until the <u>leaves are fully raised</u> <u>bridge is fully opened</u> AND the green traffic lights are exhibited.																								
<u>7.</u> Flotillas	Small craft and yachts in a flotilla situation should make every effort to co-ordinate their requirements with <u>Lowestoft HarbourPort</u> Control, 'close up' and ensure that the time taken to transit the bridge channel is reasonable, safe and kept to the minimum. Once the Lake Lothing Third Crossing has been lifted the red lights on the east and west side may both be switched to green, allowing inwards and outwards movements at the same time. Should a light remain red, a vessel must not proceed until instructed by the <u>LLTC</u> Bridge Operator, keeping clear of vessels using the main channel. <u>The LLTC</u> Bridge operators <u>s</u> will not wait for stragglers.																								

Commented [MW5]: Reasoning as per paragraph 1.

Commented [MW6]: NWG Discussion: There was much discussion about the interaction between the 2 bridges, such that an opening at 11.15 at the scheme bridge, inevitably means an opening in the order of 10 minutes after that at the BB, and potentially then LLTC opening 10 minutes after that, if there has been 2 way movts of vessels at the BB.

SCC to consider drafting further.

<p><u>8. Height clearance when closed</u></p>	<p>Small craft passing under the The Lake Lothing Third Crossing have has a clearance of 12 metres at Highest Astronomical Tide.</p> <p><u>Vessels able to safely drop masts and aerals and which can pass under the Lake Lothing Third Crossing, should do so, once they have received permission from the LLTC Bridge Operator.</u></p> <p><u>The Lake Lothing Third Crossing will not be opened for vessels that may safely pass beneath the bridge allowing a sufficient margin of safety, as advertised by the harbour authority.</u></p> <p>Vessels should have regard to the real time air draft displays advising of current clearance. Vessels able to drop masts and aerals and which can pass under the Lake Lothing Third Crossing, must do so, once they have received permission from Port Control. The Lake Lothing Third Crossing will not be opened for vessels that may safely pass beneath the bridge without an opening at the tidal level at the time of passage allowing a sufficient margin of safety, as determined by the Harbour Master, having regard to the Lake Lothing Third Crossing Navigation Risk Assessment, and notified to the Bridge Operator.</p>
<p><u>9. Double openings</u></p>	<p>Where a 'double opening' is required because vessels have require <u>passaged</u> in both directions under through either the Lake Lothing Third Crossing or the A47 Bascule Bridge, the Harbour Master has discretion to determine whether, based on navigational risk, the Lake Lothing Third Crossing should open twice in swift succession to accommodate the passage of these vessels. If the Harbour Master does determine that the Lake Lothing Third Crossing should open twice in swift succession, they will notify the <u>LLTC</u> Bridge Operator.</p>
<p><u>10. Adverse weather conditions</u></p>	<p>The Harbour Master may determine that the Lake Lothing Third Crossing should not be opened due to prevailing <u>adverse</u> meteorological conditions, where an opening in such conditions could cause unacceptable navigational risk.</p>
<p><u>11. Risk of vessels becoming trapped in the Inner Harbour</u></p>	<p>Where a commercial vessel requires a westward transit through the Inner Harbour and due to prevailing circumstances in the Port, meteorological or otherwise, the Harbour Master considers that there is a risk that the vessel may become trapped in the Inner Harbour (due to an anticipated failure of the Lake Lothing Third Crossing to open) with no available berth, the Harbour Master may require the <u>LLTC</u> Bridge Operator to open the Lake Lothing Third Crossing in advance of the commercial vessel passing through the A47 Bascule Bridge to ensure its transit through the Inner Harbour can be <u>completed</u>.</p>
<p><u>12. Emergency response</u></p>	

Commented [MW7]: Changes for clarity.

Commented [MW8]: NWG COMMENT: Needs to link back to navigational risk – SHA is not responsible for the design spec of the bridge and thus would not determine its operating parameters but it was recognised that there were instances that opening the bridge eg in certain cross winds or poor visibility could be problematic from a navigation point of view.

Commented [MW9]: NWG discussion: case for emergency berth/suitability of this measure unresolved.

Commented [MW10]: NWG – general provision for directing opening and closing of bridge in emergencies should be added – detailed drafting not discussed.

Appendix C. Offshore disposal method statement

Offshore Disposal Method Statement

Ensuring that sediment is suitable for offshore disposal

The following Statement outlines the process that the Contractor will follow to determine whether the sediment dredged from Lake Lothing can be disposed of offshore, whether that arises from a capital or maintenance dredge. In broad terms, this Statement sets out the following tasks: sample the sediment; test the sediment; obtain the results; and decide what the appropriate method of disposal is – and then follow said method.

The offshore disposal process is secured through the provision of a Deemed Marine Licence (DML) requiring agreement with Marine Management Organisation (MMO) of a sampling plan and confirmation from the MMO of suitability of material for disposal at sea. For context, if the Development Consent Order (DCO) for Lake Lothing Third Crossing is successful, a DML is granted as part of the resulting DCO.

The DML requires the applicant to complete the standard sampling and testing methodology applied to any other project. After this sampling and testing has been passed, then the material can be taken to, and disposed of, at sea (as per the following steps):

- 1 Agree sediment sampling plan with MMO;
- 2 Obtain samples in accordance with the agreed plan;
- 3 Have samples analysed at an MMO validated laboratory;
- 4 Supply analysis results to MMO on Sediment Analysis Data template; and
- 5 Obtain MMO consent for sea disposal (or otherwise).

The process is dependent on the MMO's decision with the key aspect being what the contractor would do if the answer to step 5 was "no". This is considered in a separate note on the consequences of disposal to land (Appendix D).

It should be noted that in respect of maintenance dredging only, it is the Applicant's anticipation that this would be undertaken by ABP as part of its dredging of the harbour in the course of its duties as the Statutory Harbour Authority and disposed of at sea in accordance with the conditions of its own marine licence.

Appendix D. Land Sediment Disposal Report



Lake Lothing
**THIRD
CROSSING**

Suffolk County Council

LAND SEDIMENT DISPOSAL REPORT





Suffolk County Council

LAND SEDIMENT DISPOSAL REPORT

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 62240712

DATE: JANUARY 2019

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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks				

Date January 2019

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Project number	62240712			
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Report number 1069948
WSP EGT
LL RP LE
0005

File reference	62240712-E22			
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1 LAND SEDIMENT DISPOSAL

1.1 INTRODUCTION

- 1.1.1. This Report considers how sediment arising from the construction of the Lake Lothing Third Crossing (the Scheme) could be extracted, managed and processed prior to disposal on land, rather than the offshore disposal route that has been identified within the Environmental Statement (ES) (APP-136). It has been prepared to specifically address written question number 2.65 (iii) particularly) from the Examining Authority, which is as follows:

In respect of the Screening matrix Evidence Notes (ENs) for the Southern North Sea SCI/cSAC (Matrix 6.7) and the Outer Thames Estuary SPA (Matrix 6.8), can the Applicant:

- i) Specify the maximum volume of sediment that would require disposal?*
- ii) Explain how it would be determined if it was suitable?*
- iii) Explain how any sediment would be disposed of in the event that it was not suitable for disposal in the specified offshore disposal area (TH005)?*
- iv) Explain who would approve the alternative disposal method?*

- 1.1.2. This report considers how sediment could be extracted, managed and processed prior to disposal on land before identifying mitigation that could be employed by the Contractor to mitigate likely significant effects arising from sediment management and processing.
- 1.1.3. This report should be read alongside the ES submitted as part of the Development Consent Order (DCO) application for the Scheme. Consideration of off-shore disposal of sediment has previously been undertaken in Chapter 12 of the ES and appendices 12B (APP-192) and 12C (APP-193). In addition to this, the effects on Road Drainage and the Water Environment are included within Chapter 17 of the Environmental Statement and the Updated Sediment Transport Assessment (SCC/LLTC/EX/36).

1.2 OFFSHORE DISPOSAL

- 1.2.1. The disposal of sediment at sea is regulated by the Marine Management Organisation (MMO) who use the Centre for Environment, Fisheries and Aquaculture Science (Cefas) action levels for determining the suitability of material for disposal at sea. Samples below action level 1 (see Table 1-1) are generally considered acceptable for disposal at sea. Samples above action level 2 are generally considered unacceptable for disposal at sea and samples which fall between the two action levels may require further assessment pursuant to the operation of the Deemed Marine Licence (DML).

Table 1-1 – Cefas Action Levels

Contaminant or compound	Action Level 1 (mg/kg dry weight (ppm))	Action Level 2 (mg/kg dry weight (ppm))
Arsenic	20	100
Mercury	0.3	3
Cadmium	0.4	5

Contaminant or compound	Action Level 1 (mg/kg dry weight (ppm))	Action Level 2 (mg/kg dry weight (ppm))
Chromium	40	400
Copper	40	400
Nickel	20	200
Lead	50	500
Zinc	130	800
Organotins (TBT, DBT, MBT)	0.1	1
PCBs – sum of ICES 7	0.01	None
PCBs – sum of 25 congeners	0.02	0.2
PAHs	0.1	None
DDT	*0.001	
Dieldrin	*0.005	

1.3 SCHEME SPECIFIC SEDIMENT SAMPLING

- 1.3.1. Sediment sampling was undertaken in Lake Lothing in April 2018 and a total of 12 grab samples and 32 vibrocore samples were analysed and compared to the action levels. This information was presented in Chapter 12 of the ES and appendix 12B (APP-192).
- 1.3.2. Of the 12 grab samples, 11 showed levels of trace metal contaminants for at least one determinant above the CEFAS Action Level 1 values, the most common contaminant being nickel. No samples had levels above the CEFAS Action Level 2 for any determinant.
- 1.3.3. Of the 32 vibrocore samples, 10 showed levels of trace metal contaminants for nickel, cadmium and arsenic above the CEFAS Action Level 1 values, the most common contaminant being nickel. No samples had levels above the CEFAS Action Level 2 for any determinant.
- 1.3.4. It was therefore concluded in the ES that the sediments are likely to be suitable for offshore disposal subject to approval by the MMO pursuant to the DML. The sediments are also considered unlikely to have an unacceptable impact from a contamination perspective if they are mobilised during and/or after construction.
- 1.3.5. As such it is considered that disposal on land will not be required and in the unlikely event that any disposal on land is required, then this will be for very small volumes, but this document assumes, on a worst-case basis, all sediment would require land-based disposal.

2 IDENTIFICATION OF IMPACTS

- 2.1.1. Consideration of how sediment could be extracted, managed and processed prior to disposal on land rather than the offshore disposal route that has been identified within the ES has been undertaken to check that all appropriate mitigation measures for such an eventuality are in place.

2.2 REMOVAL OF SEDIMENT

- 2.2.1. The volume of sediment that could be removed is based upon information from the bathymetry, and the worst-case scenario sized cofferdams (see Figure 5.6 (PINS document reference APP-140)).
- 2.2.2. We therefore estimate as a reasonable worst case, that there is 10,440m³ of sediment that could require disposal. Approximately 3,240m³ of this would arise from the cofferdams and the remainder (7,200m³) from the approach to the small craft pontoon.
- 2.2.3. There are two options for removing sediment from the cofferdam areas; before the sheet pile walls are installed or after. Should the Contractor wish to remove sediment before the sheet pile wall is installed, then this would be undertaken with floating plant. Post installation, the sediment could either be removed by suction or by long reach excavator positioned on the temporary pier.
- 2.2.4. Removal of sediment from the approach to the pontoon is most likely to be via grab or pumping because long reach excavators are unfeasible. Should onshore disposal be the adopted approach, pumping is probably the only feasible option because it would not be cost effective to employ a barge for grab removal only to then transfer the sediment onshore.
- 2.2.5. The construction of the pontoon, and hence the capital dredging in this area, is not on the critical path for the construction of the Scheme as there is no requirement for the pontoon to be in place until the Scheme is operational. However, the Contractor may wish to remove all sediment (cofferdam and pontoon approach) at the same time for mutual disposal. Alternatively, they may wish to programme the sediment removal at different stages in the construction.
- 2.2.6. In any event, the options presented in this section 2.2 all fall within the parameters of the ES, (APP-136) which have assumed the removal of sediment as part of its assessment, with relevant mitigation measures developed accordingly.

2.3 LAND TREATMENT OF SEDIMENT

- 2.3.1. Once onshore, the sediment material will be saturated and unsuitable for disposal at landfill without drying. Liquid wastes are banned from landfill and the Environment Agency's definition of a liquid waste is "*any waste that flows near instantaneously into a hollow in the surface of the waste*" and therefore the sediment will need to undergo dewatering/drying before it can meet that requirement. Contamination screening may also be required before disposal.
- 2.3.2. Drying of sediment can be undertaken in lagoons, holding tanks or by proprietary methods which can involve enclosure, aeration, filtration and warming to accelerate the drying process. The size of any vessel, lagoon or tank that is required will be dependent upon the rate at which sediment is removed.
- 2.3.3. To assess a worst-case, should all sediment require drying at the same time, then the previously quantified 10,400m³ of sediment would require an approximate 160m x 70m lagoon (although other configurations would be possible) at 1m deep (not allowing for working space around the lagoon for

access and movement of plant). There is room within the Order limits for such a lagoon, though it could occupy most of the land on the south quay to the north of the proposed New Access Road. A much smaller area would be required should the sediment be dried in stages i.e. cofferdam arisings following by pontoon arisings.

- 2.3.4. It has been assumed that drying and sediment removal will only take place on the south quay of Lake Lothing due to the more intensively used land to the north, and the greater area of the Order limits to the south.

2.4 ADDITIONAL CONSENTS

- 2.4.1. It is assumed that any liquid effluent from the drying process could be returned to Lake Lothing under a discharge permit issued by the Environment Agency (EA) which is likely to require monitoring of the liquid. This is considered unlikely to be a significant issued as it is liquid that has been removed from Lake Lothing in the first place.
- 2.4.2. It is likely that a permit or a permit exemption for the treatment of the sediment would be required from the EA.

2.5 EXPORT OF SEDIMENT

- 2.5.1. Once dried to a suitable condition to dispose of at landfill, which would entail a worst-case assessment, the material would be approximately 4,000m³ in volume and, assuming a density of 1.6 tonnes of material per cubic metre, would equate to 6,400 tonnes of material. It can reasonably be assumed, to provide a worst-case assessment, that an HGV can carry at least 8 tonnes of dried sediment, this would equate to 850 two-way movements to remove the material from site by road.

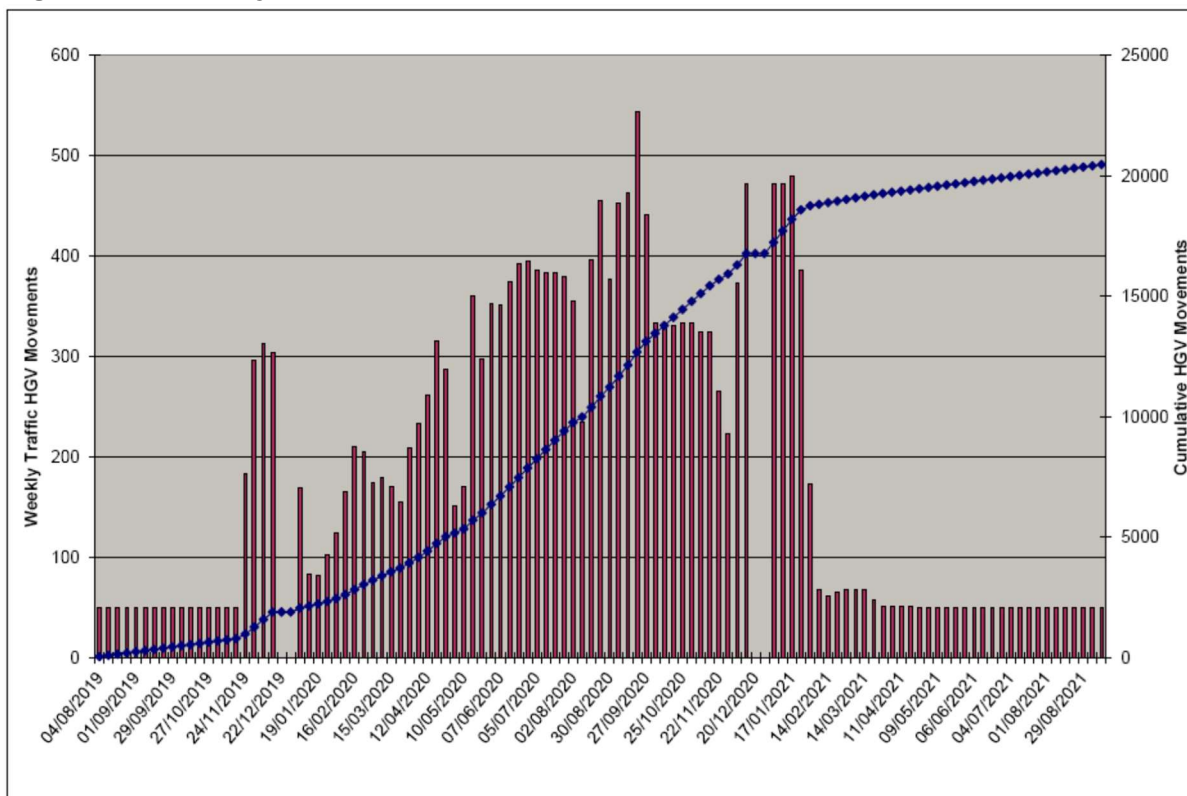
3 ASSESSMENT

- 3.1.1. Disposal of sediment on land has been considered in the context of the assessments within the ES below. Of the chapters within the ES, cultural heritage, townscape and visual impact, noise and vibration, socio economics including recreation and flooding have not considered sediment disposal and are therefore scoped out of this review.

3.2 TRAFFIC AND TRANSPORT

- 3.2.1. An assessment of construction related traffic movements was scoped out of the assessment within the ES due to construction traffic being much less than that within the opening year of the Scheme.
- 3.2.2. As stated within section 5.6 of the ES (Document Reference 6.1/APP-136) and in Figure 3-1 below (originally include in the ES as Plate 5-4), HGV movements peak at approximately 540 per week (or 108 per day assuming a five-day week). Assuming a 50/50 split of movements, there will be 54 HGV movements per weekday to both the north and south of Lake Lothing at the peak of construction. The total number of cumulative movements is shown on the right hand axis.

Figure 3-1 - Weekly HGV Movements



- 3.2.3. Furthermore, three construction compounds will be required for the construction of the scheme, two on the northern side (the northern compounds have been considered together because, as a worst-case scenario, access to both will be via Station Square) and one on the southern side. Deliveries will be split between the north and south of Lake Lothing. As stated in paragraph 6.2.6 of the ES, it is therefore highly unlikely that these 108 HGV movements will be along a single access road. As this is the identified peak in movements, it can be considered to be a worst case.

- 3.2.4. As the sediment within the cofferdams is likely to be extracted towards the start of the construction phase of the Scheme, it is not likely to coincide with the peak HGV movements shown in Figure 3-1 and hence it is reasonable to conclude that the contractor will be able to manage HGV movements to remain below a 100 HGV per day threshold.

3.3 AIR QUALITY

- 3.3.1. Similarly to the assessment for traffic and transport, as the criteria for assessing the air quality impact from construction traffic is a change of greater than 100 HGVs per day, it is very unlikely that the Contractor would not be able to manage the export of materials to remain below this threshold.
- 3.3.2. With regard to dust control, the risk of dust soiling and human health impacts during the construction phase of the Scheme have been identified, in Paragraph 8.5.13 of the ES, to be medium to high based on IAQM criteria without mitigation measures. This is a worst-case assessment as it has been based on dust occurring activities taking place adjacent to the Order limits of the Scheme. Drying of sediment is not in itself an activity that will necessarily generate significant dust, and so would be covered by the assessment already undertaken.
- 3.3.3. With regard to odour, whilst the open drying of sediment has the potential to cause odour, the enclosure of the sediment (as would be carried out pursuant to the good working practices required by paragraph 5.2.3 of the interim CoCP) would contain the odour and minimise the risk of odour nuisance. To aid clarity on this point, paragraph 5.2.3 of the interim CoCP has been amended at Deadline 3 to refer to dredging arisings.

3.4 NATURE CONSERVATION

- 3.4.1. With regard to benthic ecology, no species of note were recorded within the sediment (see APP-188 and Table 11-5 of the ES) and hence removal and drying of sediment will not result in any change to the slight adverse impact presented in the ecology chapter during the construction phase.

3.5 SOILS, GEOLOGY AND CONTAMINATION

- 3.5.1. The assessment of soils, geology and contamination has concluded in Paragraph 12.5.16 of the ES that sediments are unlikely to have an adverse impact from a contamination perspective due to the concentrations that have been identified and this conclusion is not amended through the removal of sediment from Lake Lothing to land.

3.6 MATERIALS

- 3.6.1. The ES, in Table 14-7 identified that there was sufficient inert, non-hazardous and hazardous landfill capacity in proximity to the Scheme and assuming that no material on site is suitable for re-use, a total of 76,000m³ of unsuitable terrestrial arisings would require off-site disposal and this worst-case scenario is concluded as being of slight significance.
- 3.6.2. Removing an additional 6,400 tonnes of dried sediment does not affect the conclusion drawn within the ES because the magnitude of the impact is unaltered.

3.7 PRIVATE ASSETS

- 3.7.1. With regard to land take, a lagoon, or enclosed vessel of sufficient size to store and dry all sediment could be accommodated within the Order limits for the duration of construction and therefore there is no change to the conclusion in respect of impacts on land usage.

3.8 WATER ENVIRONMENT

- 3.8.1. The drying of sediment will result in the need to discharge water, with discharge to Lake Lothing likely to be the favoured approach. As the discharge will be of water that has been removed from the Lake, it is assumed that it will be of a similar quality to that within the lake, although the EA will need to permit the discharge.

4 CONCLUSIONS

- 4.1.1. The assessment within the ES did not identify any significant effects arising from the disposal of sediment offshore nor were there any significant effects arising from the disposal of waste materials that arise during the construction phase on land.
- 4.1.2. Should it be necessary to dispose of sediment on land, this report has identified that the conclusions presented within the ES are still valid.



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