

Application by Chrysaor Production (UK) Limited for an Order Granting Development Consent for the Viking Carbon Capture and Storage Pipeline Project

The Examining Authority's written questions and requests for information ([ExQ1](#))

Issued on Wednesday 3 April 2024. Responses to be submitted at Deadline 1, on Friday 26 April 2024.

Please find below answers to the Examining Authority's written questions from the Environment Agency (EA) [ref no. 20047142].

Ref No.	Question	EA response
Q1.5	Compulsory Acquisition	
Statutory Undertakers		
1.5.22	<p>Louth canal</p> <p>The ExA viewed this site of the crossing of the canal during the USI [EV1-001]. It is shown at page 36 of ES Chapter 1 [APP-045] and designated by the black dot. The proposed method of crossing is detailed in paragraphs 3.12.201 to 3.12.211 [APP-045]. How satisfied are the parties mentioned as to the practicality and safety of the construction method proposed?</p>	<p>3.12.202 states that <i>'Typically crossings of main rivers / ditches, canals are installed by trenchless methods...'</i></p> <p>Further to this, 3.12.182 confirms that Horizontal Directional Drilling (HDD) is 'anticipated' at the River Ludd / Louth Canal crossing.</p> <p>We are satisfied with this proposed trenchless approach to Main River crossings and will be happy to provide further comment and guidance as per 3.12.201 which states that <i>'Any works within Main Rivers.....will be conducted in accordance with a method approved by the Environment Agency'</i>.</p>
Q1.7	Draft Development Consent Order	
Requirements		
1.7.27	<p>Requirement 5</p> <p>Are there other bodies, such as NE, EA and HE and/or local groups that should be</p>	<p>The EA requests that it is added as a specific consultee to the discharge of this requirement so that it can advise on matters within its remit (this request</p>

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	<p>consulted, along with those already identified? If so, please amend as necessary, if not please explain. Please clarify how long the parties would be given to review and comment on the documents?</p>	<p>was also included in paragraph 3.9 of the EA's relevant representation [RR-034]).</p>
Schedules		
1.7.38	<p>Schedule 9 Protective Provisions The Applicant has provided Protective Provisions in Schedule 9 of the dDCO [AS-008]. If these provisions are not acceptable, please provide either your preferred wording for the Protective Provisions or mark-up revisions to the Applicant's proposed Protective Provisions. Set out your reasons for any changes, including what the consequences would be without your changes being incorporated.</p>	<p>The EA is not yet in a position to be able to provide the mark-up revisions requested as it is currently reviewing its standard Protective Provisions which all applicants are expected to enter into before the EA will agree to disapplication. The EA expects to complete this exercise by the end of May and will then update the applicant and the Examining Authority on its position regarding the acceptability of the form of Protective Provisions put forward by the applicant.</p>
1.7.40	<p>Schedule 9 format In their representation [RR-034], the EA submit that the draft Protective Provisions included in Schedule 9, Part 7 are not in a format they agree with and until the wording of Protective Provisions is in a format acceptable then they will not agree to the disapplication of the Environmental Permitting (England and Wales) Regulations 2016 for flood risk activities. Provide an update concerning any further discussions.</p>	<p>Please see answer to 1.7.38 above.</p>

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Q1.8	Ecology and Biodiversity	
Ecology		
1.8.4	<p>Fish ES Chapter 6 [APP-048, Paragraph 6.5.92] states that no field surveys for fish have been carried out. Does the EA have any concerns in this regard?</p>	As all Main River crossings within the DCO boundary will be undertaken using trenchless methods, the EA does not have any concerns that no field surveys for fish have been carried out.
1.8.6	<p>Invasive Non-Native Species (INNS) The Applicant has identified that invasive non-native species are present in the Order Limits [APP-048]. Mitigation measure B1 suggests a management plan will be prepared to ensure such species do not spread.</p> <p>1) Is it considered, given the species identified, that any specific measures need to be taken and/or committed to now? 2) Should the project adopt a more proactive policy of seeking to remove such species where encountered along the pipeline-laying route? 3) Would micro-siting around such INNS be an appropriate technique with assured biosecurity?</p>	The EA defers to the views of Natural England on this matter.
Q1.10	Flood Risk, Hydrology and Water Resources	
Flood Risk		
1.10.6	Receptors	We have noted in our previous comments that some sections of the proposed development are close to higher vulnerability (i.e. 'more vulnerable' as

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	<p>Is the EA satisfied that all potential downstream water environment receptors have been considered in the assessment?</p>	<p>classified in Annex 3 of the National Planning Policy Framework) residential properties. We are satisfied with the assessment included within Chapter 11 of the Environmental Statement; however the applicant should have considered these in the flood risk assessment (FRA), and provide assurance that the development will not increase flood risk to these properties.</p>
1.10.7	<p>Climate Change Allowances Are the EA content that appropriate climate change allowances have been applied in the FRA [APP-101]?</p>	<p>We have noted that the proposed lifetime of the development is 25 years, but the FRA assesses a lifetime of 75 years. We support this approach as it is in line with flood risk policy. Environment Agency mapping and modelling to 2115 has been used. We do however require comments and updates on:</p> <ol style="list-style-type: none"> 1) The use of average breach and overtopping depths throughout the ES and FRA, as opposed to maximum breach depths. We have discussed this with the applicant and understand the difficulty in using maximum depth as it includes low spots (such as ditches) which give misleading maximum values. The applicant should therefore use some appropriately selected maximum depths at relevant sites within the FRA. 2) The use of 50% confidence values within sensitivity testing, rather than 97.5% values - we would expect sensitivity testing to be based on the 97.5% confidence values, and we therefore require some explanation as to why

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		<p>this approach has been taken, and assurance that mitigation measures proposed for the site will be suitable.</p>
1.10.12	<p>Hold the line Paragraph 5.13.15 of the FRA [APP-101] states that the current 'Hold the Line' policy may lead to the raising of flood embankments to maintain the standard of protection. To the Applicant - Can the Applicant confirm whether the assessment undertaken relies on embankment raising as a mitigation measure, or whether the effects of the 'hold the line' policy are considered within the future baseline scenario against which to assess the effects of flood risk. To the Environment Agency - Can the EA explain to what extent raising the flood embankments can be relied upon as mitigation to maintain the necessary standard of protection?</p>	<p>A Shoreline Management Plan (SMP) policy of 'Hold the Line' applies in the short-medium term along this tidal frontage. A policy of Hold the Line / Managed Re-alignment applies for the 2055 – 2105 period. The detail of how this policy would be applied in the future has not been set in detail at this point, however beyond 2055 it will likely include some areas where flood defences would be raised, and some areas, where the consequences of flooding are assessed to be lower, being re-aligned or not raised any further.</p> <p>However, SMP policies are aspirational and there can be no guarantee that this is going to happen. Future decisions on investment in flood defence raising will be based on relevant policy at the time, as well as funding availability. All flood defence schemes now and in the future, need to be supported by suitable business cases in order to justify investment of public funding.</p> <p>If flood defences are raised in line with the SMP aspiration, then this will continue to provide protection to the proposed scheme. There will remain relatively high residual risks to the development in</p>

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		the event of breach or overtopping flood events.
1.10.13	<p>Sustainable urban drainage (SuDs) Can the Applicant provide evidence to demonstrate that the SuDS measures described in the Drainage Strategy [APP-099] are adequate and can be delivered within the Order Limits of the Proposed Development? A supporting plan/ figure would be helpful to illustrate the potential locations of such measures.</p> <p>Is the EA satisfied that the SuDS measures proposed are adequate to manage and attenuate surface water from the Proposed Development?</p>	The EA's remit does not include surface water drainage matters and we would therefore recommend obtaining advice from the Lead Local Flood Authority (Lincolnshire County Council) on this matter.
Hydrology and Groundwater		
1.10.17	<p>Assessment methodology The Applicant [APP-051, Paragraph 9.4.3] has relied upon the Design Manual for Roads and Bridges (DMRB) LA109 to assess effects arising from this project. Can the EA confirm that this is an acceptable starting point and, if so, why?</p>	Insofar as the stages of assessment are concerned, this is an acceptable starting point; to begin with a desk study within the specified study area to identify features and existing information, with the baseline scenario supported by site walkover where required, followed by site investigation or monitoring data where appropriate. The EA questioned the significance criteria applied initially, but our concerns were addressed and accommodated, and we are now in agreement with the criteria outlined in Table 9-6.
1.10.18	<p>Sample size It is stated site surveys were carried out on 22 and 23 January 2023 [APP-051,</p>	The surveys were intended to identify or confirm the presence of features, to discount/include them in later considerations. The purpose of the survey was not to

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	Paragraph 9.5.5]. No other surveys are reported. Is this a sufficient sample size from which to assess effects and draw conclusions and, if so, why?	assess effects, so it is considered appropriate.
1.10.24	<p>Chalk streams and mitigation</p> <p>The Applicant proposes using clay plugs and flume pipes to ensure water management within watercourses [APP-053, Paragraphs 11.7.23 and 11.7.24]. Are these suitable measures for chalk streams and, if not, what would be the suitable alternatives?</p>	The proposal includes the temporary removal of the bed substrate and includes scour protection to mitigate the risk of erosion at the flume outflows, and the bed substrate and in-stream vegetation will be replaced upon completion of the works. As there will be no permanent impact, and the works will not prevent us from achieving our objectives in respect of chalk stream restoration, the EA is satisfied that these measures are suitable.
1.10.27	<p>Cumulative construction impacts</p> <p>Table 11-23 [APP-053] sets out the construction impacts on watercourses. It is noted there are multiple instances of 'minor adverse' effects across the Proposed Development.</p> <p>1) It occurs to the ExA that the cumulative number of minor adverse effects may lead to major adverse effect on watercourses across the whole project. Does the Applicant have any response to this probability?</p> <p>2) If there is potential, as suggested in ES Chapter 12 [APP-054], for multiple construction crews to be working on a project at the same time, has the same</p>	<p>1) During construction any project has the potential to adversely impact the water environment via deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals spilt on site. These impacts can be mitigated by adhering to pollution prevention guidelines and industry best practice to prevent degradation of the water bodies.</p> <p>2) Yes</p> <p>3) Although the EA is not aware of whether there will be instances where works, which could negatively impact a single watercourse from separate locations will take place, we are satisfied that the implementation of measures secured via the CEMP should address this, in conjunction with the non-</p>

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	<p>assumption been applied in respect of the water environment?</p> <p>3) If the answer to 2 is yes, are there instances where a single watercourse could be affected at the same time in separate locations, does combining the predicted minor adverse effects into a major adverse effect?</p>	<p>intrusive techniques mentioned for use in construction the pipeline.</p>
Control of pollution and contaminants		
1.10.29	<p>Standard mitigation</p> <p>The Applicant has referred to normal construction practices being used within the Proposed Development and this routine, industry standard mitigation would suffice [APP-053, Paragraph 11.6.2]. Are the EA content that:</p> <p>1) this is indeed sufficient mitigation;</p> <p>2) whether the controls proposed are comprehensive and can the EA confirm if it has any confidence that the measures will be effectively implemented; and</p> <p>3) there are no other mitigation measures (including area-specific mitigations) that are required in this instance.</p>	<p>1) The EA is content that the proposed industry standard mitigation practices to be used during the proposed development will be sufficient to meet with our Pollution Prevention Guidelines.</p> <p>2) Due to the scale of the development, we are confident that the measures will be effectively implemented as using these practices will reduce the likelihood of an incident. If the applicant does cause a pollution, it will be their responsibility for the cost of any clean up and they could face prosecution if there is serious pollution or impact on the beds and banks of a watercourse and on the quality and quantity of the water. Some activities, with the potential for affecting watercourses or groundwater, may require additional consent under the Water Resources Act 1991.</p> <p>3) There are no other mitigation measures required that are not covered by the Pollution Prevention Guidelines and/or best practice standards.</p>
Q1.17	Waste and Minerals	

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Waste		
1.17.1	<p>JA Young Plastics</p> <p>The Applicant proposes business-specific mitigation in respect of the operations for JA Young Plastics [APP-060, Table 18-4].</p> <p>1) To the EA and Local Authorities: are the mitigations proposed appropriate and robust, or are further measures required?</p> <p>2) To the Applicant: these mitigations are not readily apparent within the register under the CEMP [APP-068]. Where is this mitigation secured?</p> <p>3) To JA Young Plastics: provide any comments regarding the impacts upon your specific business operations as a result of the Proposed Development and whether or not the Applicant's mitigation would alleviate the concerns you have.</p>	<p>1) The EA is satisfied with the proposed mitigation, which is included in H4 of the draft CEMP commitments (Table 3 of APP-068).</p>