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The Net Zero Teesside Project Case Team
National Infrastructure Planning
The Planning Inspectorate

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

For the attention of: The Net Zero Teesside Project Case Team

NSIP Reference Name / Code: EN010103 – The Net Zero Teesside Project
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This letter encloses Natural England's response to the 'Requests for further information and written comments' from the Examining Authority on the above dated 02 November 2022, which were received by Natural England on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Please find Natural England's responses to the Examining Authority's 'Requests for further information and written comments' below:

1. In its response at D11 [REP11-031], the EA outlines several outstanding questions regarding the water quality modelling outlined in [REP9-016]. In light of these questions:

a) Is NE still satisfied that nutrient neutrality would be achieved as stated in [REP11-036]?

Natural England is satisfied that nutrient neutrality would be achieved based on the approach presented in the Nutrient Nitrogen Briefing Paper [REP9-016].

b) Does NE want to otherwise update its Representation?

With regards to the EA's outstanding questions, Natural England does not wish to update its Representation. However, we have discussed and agreed with the Applicants an amendment to the draft Requirement regarding the 'Effluent Nutrient Neutrality Safeguarding Scheme', which is discussed further in our response to question 3.

c) Are the potential impacts of nitrogen in water on the Teesmouth and Cleveland Coast SPA/Ramsar normally assessed in terms of loading, concentration or both? Please explain why?

Natural England's guidance on Nutrient Neutrality, as provided to Competent Authorities on 16 March 2022, states that any additional loading of total nitrogen from new residential developments should be mitigated. Load is equal to the concentration multiplied by the volume. Therefore, both are used in an assessment of the impacts on a designated site. However, Natural England normally assesses the impacts of nitrogen on designated sites in terms of loading.

The guidance and tools provided by Natural England were not designed to assess the impacts from new industrial, point source discharges. The Applicants have therefore presented a novel approach

to assessing the impacts of the proposal on the Teesmouth and Cleveland Coast SPA/Ramsar. They have presented modelling and assessed based on the resulting concentration of nitrogen in various parts of the SPA/Ramsar and have calculated the net additional load of nutrient nitrogen at Seal Sands, which is shown to be negative. Natural England considers this a valid way of assessing the impact of the development on the parts of the SPA/Ramsar that are vulnerable to elevated nitrogen levels.

2. In its response of D11 [REP11-036], NE states that it is content that nutrient neutrality would be achieved if either 'Option A' is implemented, or a different design that would result in an equivalent or lower amount of nitrogen reaching Seal Sands.

a) Have alternative designs been discussed between NE and the Applicants? If so, please outline what these are.

Natural England has not discussed alternative designs with the Applicants to achieve the same or better outcome as 'Option A'.

b) If not, what confidence does NE have that alternative designs are deliverable?

The Applicants have presented a deliverable design that would achieve nutrient neutrality. Natural England sees no reason why another design could not achieve the same or a better outcome but would assess the evidence to support it as and when it is presented.

3. At ISH6, the ExA requested further details of the 'Effluent Nutrient Neutrality Safeguarding Scheme', which the Applicants have proposed to secure via a requirement of the DCO. Details of the proposed Requirement and an outline of the scheme are provided in [REP11-017]:

a) Is NE satisfied that the Requirement as written ensures that adverse effects on the integrity of the European Site would not be caused, either if the final design is Option A or an alternative?

Natural England has agreed with the Applicants the following amendment to the wording of point 3(a) of the draft Requirement: "a) not cause a net increase in total nitrogen loads ~~concentrations~~ in water within the Tees Estuary at the Seal Sands mud flats;". The rationale for this amendment is that it would make clear a more direct assessment of the conclusions of the Nutrient Nitrogen Briefing Paper. In particular, the conclusion that the "net additional load of nutrient nitrogen at Seal Sands from the Proposed Development is therefore less than 0.94 kgN/hr minus 2.2 kgN/hr, i.e. a net removal of potentially 1.2 kgN/hr from the Tees Estuary".

Once the above amendment is incorporated, Natural England is satisfied that the Requirement ensures adverse effects on the Teesmouth and Cleveland Coast Special Protection Area and Ramsar site will be avoided. The Applicants have demonstrated that 'Option A' would deliver a nutrient neutral outcome. If an alternative was presented, it would need to be supported by robust evidence to demonstrate that it delivered the same outcome, in terms of nutrient neutrality, as 'Option A'.

b) Is NE satisfied that the 'net increase in total nitrogen concentrations' is easily definable? Should this be defined as part of the Requirement?

Natural England directs your authority to the answer to the previous question.

Once the aforementioned amendment has been incorporated into the Requirement, Natural England is satisfied that the terminology is easily definable and further details can be provided in 'Effluent Nutrient Neutrality Safeguarding Scheme'.

The nitrogen concentration and flow rate will be monitored in the proposed development's discharge, as required by the Environmental Permit. The concentration along with the flow rate can

be used to calculate the resulting additional loading (or the contrary) of total nitrogen at Seal Sands, as demonstrated by the modelling presented in the Nutrient Nitrogen Briefing Paper. This would enable an assessment of the conclusion stated in Nutrient Nitrogen Briefing Paper, that the “net additional load of nutrient nitrogen at Seal Sands from the Proposed Development is therefore less than 0.94 kgN/hr minus 2.2 kgN/hr, i.e. a net removal of potentially 1.2 kgN/hr from the Tees Estuary”.

We expect the details of the Scheme to clarify the content and frequency of reporting, and for these reports to be submitted to Natural England to confirm the assumptions made in the Nutrient Nitrogen Briefing Paper.

c) Is NE satisfied that the Requirement is enforceable? If not, what amendments should be made?

Natural England considers that the Requirement is enforceable. The discharge from the site will be monitored to comply with the requirements of its Environmental Permit. This monitoring provides a mechanism to ensure that the composition of discharge has been accurately estimated in the Applicant’s modelling.

d) Should the Scheme include provision for regular review linked to monitoring and future changes in water quality?

Yes, including a provision to this effect would be necessary to enable the Scheme to be verifiable and enforceable. Regular monitoring will be required and should be reviewed at a frequency that is stated in the Scheme.

e) Does NE have any other comments that it would like to submit to the ExA regarding the proposed Scheme and Requirement?

Natural England does not have any further comments to provide to the Examining Authority regarding the proposed Scheme and Requirement.

4. We understand that the Applicants have volunteered to undertake nitrogen monitoring at Seal Sands [REP11-017] and that this proposal was discussed with NE on the 14 October 2022.

a) Does NE have any comment that it would like to submit to the ExA on the voluntary monitoring scheme?

Natural England welcomes the commitment by the Applicants to undertake a voluntary monitoring scheme of nitrogen at and around Seal Sands. We look forward to working with the Applicants and the Environment Agency to develop this scheme.

Yours sincerely,

Nick Lightfoot
Senior Adviser – Northumbria Area Team
Natural England