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Dear Ms Harvey

NATURAL ENGLAND'S RELEVANT REPRESENTATIONS IN RESPECT OF A12 CHELMSFORD TO A120 WIDENING SCHEME

TR010060: A12 Chelmsford to A120 Widening Scheme

User Code: 20032607

Thank you for your consultation on the above dated 20 September 2022, which was received by Natural England on the 21 September 2022.

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.

Relevant Representation

PART I: Summary of Natural England's advice.
PART II: Natural England's detailed advice

PART I

1. General information

- 1.1. Natural England's advice in these relevant representations is based on information submitted by National Highways in support of its application for a Development Consent Order ('DCO') in relation to the A12 Chelmsford to A120 Widening Scheme.
- 1.2. Natural England has provided the applicant with advice on their Habitat Regulations Assessment (HRA) and agreed with the conclusion of no Likely Significant Effect on Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA) and Ramsar; Essex Estuaries Special Area of Conservation (SAC); and Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar;

Abberton Reservoir SPA and Ramsar; Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar; Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar; Outer Thames Estuary SPA; Stour and Orwell Estuaries SPA and Ramsar; and Alde-Ore Estuary SPA and Ramsar.

- 1.3. These relevant representations contain a summary of what Natural England considers the main nature conservation issues¹ to be in relation to the DCO application and indicate the principal submissions that it wishes to make at this point. Natural England may develop these points further as appropriate during the examination process. It may have further or additional points to make, particularly if further information about the project becomes available.
- 1.4. Part I of these representations provides an overview of the issues and a summary of Natural England's advice. Section 2 identifies the natural features relevant to this application. Section 3 summarises Natural England's overall view of the application and the main issues which it considers need to be addressed by the Secretary of State.
- 1.5. Part II of these representations sets out all the significant issues which Natural England advises should be addressed by National Highways and the Examining Authority as part of the examination process in order to ensure that the project can properly be consented. These are primarily issues on which further information would be required in order to allow the Examining Authority properly to undertake its task or where further work is required to determine the effects of the project to provide a sufficient degree of confidence as to their efficacy.
- 1.6. Natural England will continue discussions with National Highways to seek to resolve any concerns and agree outstanding matters in a statement of common ground. Failing satisfactory agreement, Natural England advises that the matters set out in section 3.2 will require consideration by the Examining Authority as part of the examination process.
- 1.7. The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.

2. The natural features potentially affected by this application

- 2.1. As identified in the report entitled *6.1 Environmental Statement Chapter 9 Biodiversity* the designated sites relevant to this application are:
 - 2.1.1 Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA) and Ramsar;
 - 2.1.2 Essex Estuaries Special Area of Conservation (SAC);
 - 2.1.3 Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar;
 - 2.1.4 Abberton Reservoir SPA and Ramsar;
 - 2.1.5 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar;
 - 2.1.6 Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar;
 - 2.1.7 Outer Thames Estuary SPA;
 - 2.1.8 Stour and Orwell Estuaries SPA and Ramsar;
 - 2.1.9 Alde-Ore Estuary SPA and Ramsar
 - 2.1.10 Marks Tey Brickpit Site of Special Scientific Interest (SSSI)
 - 2.1.11 Tiptree Heath SSSI
 - 2.1.12 River Ter SSSI
 - 2.1.13 Whetmead Local Nature Reserve (LNR)

¹ PINS NSIP Advice Note 11 Annex C sets out Natural England's role in infrastructure planning.

https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/10/PINS-Advice-Note-11_AnnexC_20150928.pdf

2.1.14 Brockwell Meadows LNR

- 2.2. The following European protected species may be affected by the proposed project:
- 2.2.1 Bats
 - 2.2.2 Great Crested Newts (GCN);
 - 2.2.3 Otter
 - 2.2.5 Dormouse
- 2.3. The following nationally protected species may be affected by the proposed project:
- 2.3.1 Badger
 - 2.3.2 Water Vole
 - 2.3.3 Birds – breeding, wintering and schedule 1 species (including barn owl)
 - 2.3.4 Reptiles
- 2.4. The following valuable and sensitive habitats and species could be affected:
- 2.4.1. 37 local wildlife sites (LWSs) within 1km of the proposed scheme
 - 2.4.2. UK Priority Habitats including arable field margins, lowland mixed deciduous woodland, eutrophic standing waters, wet woodland, hedgerows, open mosaic habitats on formerly developed land, ponds, reedbed, rivers, wood-pasture and parkland.
 - 2.4.3. Ancient woodland and veteran trees
 - 2.4.4. Species of Principle Importance including brown hare, hedgehog, common toad, polecat
 - 2.4.5. Terrestrial invertebrates
 - 2.4.6. Freshwater fish, macro-invertebrates and macrophytes
 - 2.4.7. Notable plant species.
- 2.5. Approximately 460.2 ha of agricultural land, including 332.5 ha of Best and Most Versatile (BMV) land would be permanently sealed by the proposed scheme or otherwise lost to agricultural production. An additional 85ha of agricultural land, including at least 63ha of BMV land is anticipated to be temporarily acquired for the proposed scheme.
- 2.6. Biodiversity Net Gain: the applicant has carried out a calculation using the Biodiversity Metric 3.0 which demonstrates that greater than 10% biodiversity net gain will be achieved across each of the terrestrial habitat, hedgerow and river categories.
- 2.7. The main issues raised by this application are discussed in the next section.

PART II

3. Detailed advice

- 3.1. Natural England has no objection to the project for the following reasons:
- 3.1.1. There are no internationally designated sites located within the vicinity of the project that are likely to be significantly adversely affected by hydrological effects or by disturbance of species. We agree with the conclusions of the report, entitled *6.8 Habitats Regulations Assessment: No significant effects report*, that no likely significant effects on any European sites are anticipated for the proposed scheme, when considered alone and in combination with other plans or projects.
 - 3.1.2. Natural England is satisfied that the project is unlikely to have a significant impact on the nearby nationally designated sites River Ter SSSI, Marks Tey Brickpit SSSI and Tiptree Heath SSSI based on the information provided.

3.1.3. There are no nationally protected landscapes that would be affected.

3.2. Natural England's other comments based on the information submitted are as follows:

Soils and Agricultural Land Quality

3.2.1. Under the Town and Country Planning (Development Management Procedure) (England) Order 2015 (DMPO) Natural England is a statutory consultee on development that would lead to the loss of over 20ha of 'best and most versatile' (BMV) agricultural land (land graded as 1, 2 and 3a in the Agricultural Land Classification (ALC) system, where this is not in accordance with an approved plan.

3.2.2. Land Use/ Land Take and Likely BMV impacts

Table 10.6 in the Environmental Statement (ES) Ch 10, indicates that the proposed scheme extends to some 835.2 ha of which 544.5 (65.2%) is identified as agricultural land. Table 10.13 in ES Ch 10 indicates that of the agricultural land, 460.2 ha (approx. 85%) will be subject to permanent development and 84.5 ha (approx. 15%) will be subject to temporary development and returned to agricultural use. 86% (395.5ha) of the agricultural area is estimated to be best and most versatile (BMV) agricultural land.

Of the area identified as agricultural land, permanent development leads to a loss of 332.5ha of the best and most versatile (BMV) agricultural land, made up of 69ha of Grade 2 and 263.5 ha of Subgrade 3a; and temporary development affects some 63 ha of BMV, made up of 8ha of Grade 2 and 55 ha of Subgrade 3a. The ES Ch 10 correctly recognises that this gives rise to a very large adverse impact. (Table 10.4). For areas temporarily impacted, a firm commitment to restore BMV agricultural land back to its original grade is missing, and this needs to be addressed.

It is not clear what is considered to be permanent development; the applicant should clarify if it includes soft afteruses, for example, areas of restored borrow pits and field scale ecological mitigation? If so, the design principles should also allow this land to maintain or return to its original physical characteristics (ie to retain its ALC grade) as far as practicable to minimise the loss of BMV capability of this land in the longer term, and in the case of borrow pits follow normal minerals reclamation protocols (such as those set out in [Minerals Planning Practice guidance](#)), which recognise the need to reinstate land back to its original quality even if the initial planned afteruse is non-agricultural.

Information about the amount and location of BMV agricultural land is based on a Agricultural Land Classification field survey commissioned by the applicants and reported in Appendix 10.2 of the ES. To further assess the robustness of this survey we would welcome additional clarification around the detail of the survey, including the applicants use of a lower sampling density than is usual best practice, use of a single climate reference point for grading rather than a wider spread, lack of moisture balance calculations to support the soil droughtiness assessment and further detail about the number and location of the representative soil pits.

3.2.3. Soils

NE welcomes the submission of maps showing the main soil types at the application stage as this allows soil information to be used as part of scheme design; however more detailed sampling is needed for it to form a comprehensive Soil Resources Survey in line with the [Defra Construction Code of Practice for the Sustainable Use of Soil on Construction Sites](#). This includes collecting supporting soil analytical data, for example to identify the location of low nutrient soils suitable for habitat creation and ecological enhancements at the scheme design stage. It should also be noted that soil mapping so far has only encompassed the agricultural soils; soil resource surveys in line with the

Defra Construction Code will need to be undertaken for all soils impacted by the development so that all can be handled in the appropriate way. This is to reflect the Government's commitment in its 25 Year Environment Plan for all soils to be sustainably managed.

The ES (chapter 10) does not appear to follow the methodology for Geology and Soils as set out in [LA109](#) methodology, in that in that agricultural land, agricultural soils and other soils have been considered as separate receptors rather than with soil as a single receptor. Our understanding is that this should be a single assessment for the soil as a receptor and would reflect the likely impact on the baseline soils criteria combined. This would assess sensitivity as 'very high' and the magnitude 'major' giving rise to a very large adverse impact. This points to the very significant adverse impacts of this proposed scheme on soil functions and soil health, only a small proportion of which can be mitigated.

3.2.4. **First Iteration of the Soil Handling Management Plan (Appendix M) August 2022**

Paras M.1.2 and M.1.5 The plan should apply to all soils affected by the scheme, not just those currently in agricultural use. This reflects the Government's commitment in its 25 Year Environment Plan for all soils to be sustainably managed. It is however recognised that some soils for engineering applications, such as for bulk fill will require different management to those selected for agricultural, landscaping or ecological end uses.

Para M.1.5 For agricultural soils, topsoils and subsoils should normally be restored to a combined depth of 1.2m and this should apply to agricultural areas being reinstated and in other areas such as borrow pits and field scale ecological mitigation areas where reinstatement to the physical characteristics of 'best and most versatile' quality may also be required. To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.

Para M.3.1 We welcome use of the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) to guide soil management during construction. Alongside this there should also be a commitment for 'best and most versatile' (BMV) agricultural temporality required for the development to be returned back to its original ALC grade. This includes areas such as field scale ecological mitigation areas and borrow pits where reinstatement to the physical characteristics of 'best and most versatile' quality may also be required.

Para M.5.1 The ALC survey provides information on soil resources and a considerable amount of data is already available. However more detailed sampling is needed for it to form a comprehensive Soil Resources Survey in line with the Defra Construction Code. This includes additional sampling of soils in non-agricultural uses and the collection of supporting soil analytical data in both agricultural and non-agricultural areas, for example to identify the location of soils suitable for habitat creation, ecological enhancements and landscaping. Ideally this data would already have been collected as part of the ALC assessment, which would have avoided additional survey effort and allowed the data to be available for the master-planning process.

Para M.5.22 Soil handling should normally be avoided during November to March inclusive, irrespective of soil moisture conditions, because it will generally not be possible to establish green cover over winter to help dry out soils and protect them from erosion. Soils should only be handled in a dry and friable condition. A field suitable method for assessing whether soils are in a dry and friable condition based on plastic

limits is set out in Part One (Explanatory Note 4 – Table 4.2) of the Institute of Quarrying's [Good Practice Guide for Handling Soils in Mineral Working](#), and this approach together with the associated rainfall protocols should be adopted.

Paras M.5.23 & M.5.24 Apart from the replacement of topsoil (using the modified loose tipping method of soil replacement), use of bulldozers should not be permitted for any soils being returned to best and most versatile quality due to the high risk of soil compaction due to repeated trafficking. To minimise risk of soil damage, best practice is for soils to be stripped and replaced by excavators and dump trucks using the methods described in the Defra Construction Code.

Para M.6.2 In addition to topsoil and subsoils being stored separately, different soil types as identified from the soil resource survey, will also need to be segregated and stored separately.

Para M.6.5 (2nd bullet) To minimise the risk of internal compaction and maximise soil aeration, best practice is for soil stockpiles heights to be a maximum height of 3m for topsoil and 5m for subsoil.

Para M.6.10 Soil stockpiles should also be seeded if in place over the winter period

Para M.7.1 Where soils are being reinstated, we welcome the commitment to reinstate soils to their pre-disturbance depth and quality. There should also be a specific commitment for 'best and most versatile' (BMV) agricultural land temporality required for the development to be returned to its original Agricultural Land Classification (ALC) grade. This includes areas such as field scale ecological mitigation areas and borrow pits where reinstatement to the physical characteristics of 'best and most versatile' quality may also be required. To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.

Para M.7.6 and M.7.9 It is not entirely clear what is meant by 'substrate' in this context and this requires clarification in the text, perhaps by a separate heading covering the treatment of subsoils?. Subsoil within 120cm of the soil surface is normally regarded as part of the soil, with material below that typically described as the parent or basal material. These are usually handled and managed in different ways and the type of methods and machinery to be used should be specified. To minimise risk of soil damage, best practice is for subsoils to be replaced by excavators and dump trucks using the loose-tipping methods described in the Defra Construction Code. Use of bulldozers should not be permitted for any subsoils being returned to best and most versatile quality due to the high risk of soil compaction due to repeated trafficking

M.7.10 Subsoil should be handled when in a dry and friable condition. Appropriate moisture content criteria and associated rainfall protocols should be followed, as set out in Part One (Explanatory Note 4 – Table 4.2) of the Institute of Quarrying's [Good Practice Guide for Handling Soils in Mineral Working](#). Soil handling should normally be avoided during November to March inclusive, irrespective of soil moisture conditions, because it will generally not be possible to establish green cover to help dry out soils and protect them from erosion.

M.7.14 The machinery to be used for spreading the topsoil should be identified. Apart from the replacement of topsoil (using the modified loose tipping method of soil replacement), use of bulldozers should not be permitted for any soils being returned to best and most versatile quality due to the high risk of soil compaction due to repeated trafficking. To minimise risk of soil damage, best practice is for topsoil to be replaced by

excavators and dump trucks using the methods described in the Defra Construction Code.

M.7.15 To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.

M.7.16 Topsoil should be handled when in a dry and friable condition. Appropriate moisture content criteria and associated rainfall protocols should be followed, as set out in Part One (Explanatory Note 4 – Table 4.2) of the Institute of Quarrying's [Good Practice Guide for Handling Soils in Mineral Working](#). Soil handling should normally be avoided during November to March inclusive, irrespective of soil moisture conditions, because it will generally not be possible to establish green cover over winter to help dry out soils and protect them from erosion

M.7.17-M.7.7.21 It is not clear how long a period of aftercare is envisaged; for agricultural land this is normally 5 years. Clarification should be provided.

Protected Species

- 3.2.5. Representations from Natural England's Wildlife Licensing Service in relation to the draft bat and badger licence applications will follow in due course. We note that District Level Licensing will be used for GCN mitigation.

Ancient Woodland and veteran trees

- 3.2.6. Natural England advises that the proposals as presented have the potential to adversely affect woodland classified on the Ancient Woodland Inventory and veteran trees. Natural England is generally satisfied with the proposed mitigation /off-setting measures proposed in 6.1 Environmental Statement Chapter 9 Biodiversity, subject to these being developed in accordance with Natural England's [Standing Advice](#) detailed in the relevant plans including the EMP and LEMP

3.2.7. Local Wildlife Sites, Priority Habitats and Species of Principal Importance

Natural England is generally satisfied that potential adverse effects on Local Wildlife Sites, Priority Habitats and Species of Principal Importance, through construction and operation of the Proposed Scheme, will be adequately mitigated through implementation of the proposed embedded (design) and standard mitigation measures proposed in 6.1 Environmental Statement Chapter 9 Biodiversity, subject to these measures being detailed in the relevant plans, including the EMP and LEMP, and their delivery secured through an appropriate DCO requirement

Biodiversity Net Gain

- 3.2.8. Natural England welcomes the commitment to the delivery of 25% net gain of area-based habitats, 36% and 20% net gain of linear (hedgerow) habitats and 156% net gain of river habitat as set out in paragraph 9.13.1 of the Environmental Statement Chapter 9 which will have a positive effect on the natural environment. Natural England notes that this commitment is not currently reflected in proposed Requirement 9 of the draft DCO. Natural England therefore advises that this requirement should be secured by a suitably worded requirement in the DCO, if the project is approved .

Natural England
3 November 2022

