

17 July 2023

The Planning Inspectorate  
Major Applications and Plans  
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Essex Wildlife Trust provides advice to Local Planning Authorities to inform planning decisions in respect of potential ecological impacts from development. If the applicant or any other interested party requires additional information on the advice we have provided, any such queries should be directed to the Planning Case Officer who will seek further information from us where appropriate and necessary.

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Dear Sir/Madam,

**Lower Thames Crossing**  
**Planning Inspectorate ref: TR010032**  
**Essex Wildlife Trust registration identification number: 20035234**

Following our registration on 20 February 2023 we wish to submit a more detailed relevant representation in this letter.

## 1. Introduction

Essex Wildlife Trust is the county's leading conservation charity, committed to protecting wildlife and inspiring a lifelong love of nature. Founded in 1959 by volunteers, we protect over 8,400 acres of land across 87 sites and are supported by 39,000 members. We are an evidence-based organisation, applying relevant legislation and policy in tandem with our specialist expertise to assess the impacts of development on wildlife and habitats.

The world is experiencing a climate and biodiversity emergency. Wildlife, habitats and ecosystem functions are under ever-increasing stress and destruction from development, land use changes and the climate emergency. In the UK alone, 40% of species are in decline, 15% are under threat of extinction and there has been a 13% fall in the abundance of nature since 1970. It is therefore vital that development plays its part in mitigating its own impact and contributing positively to nature's sustained recovery.

We made clear our objection to the proposals for the Lower Thames Crossing in our written representation which we submitted to the Planning Inspectorate on 20 February 2023.

Notwithstanding our objection, we have engaged positively with the applicant to ensure that if the scheme is granted permission by the Secretary of State the impacts on wildlife will be fully mitigated, and the project will deliver high-quality habitat creation at a landscape-scale and make a significant contribution to nature's recovery.

## 2. Summary of our main concerns

We have serious concerns about the following issues:

- Proposals undermine the Government's commitments to addressing the climate and biodiversity crisis
- Proposals undermine the Government's commitment to protect 30% of the UK's land for nature by 2030 and its commitment to Nature Recovery Networks
- Proposals currently do not achieve the minimum target of 10% Biodiversity Net Gain (BNG)
- Impacts on the Thames Estuary Important Invertebrate Area (IIA) and its nationally important population of rare and scarce invertebrates
- Construction phase impacts on designated features (waterbirds) of the Thames Estuary and Marshes Special Protection Area (SPA) require additional mitigation to ensure impacts are avoided
- Impacts on ancient woodland and veteran trees remain unacceptable and proposed compensation/mitigation measures are insufficient
- Impacts on water vole habitat; proposed mitigation measures are not in line with water vole conservation strategy
- Barrier effect of new road will be significant and proposals for landscape-scale mitigation and habitat creation are insufficiently robust and lacking in ambition
- Much of the detail on ecological mitigation deferred to post-consent stage resulting in a lack of clarity regarding the magnitude of residual impacts

### 1. Impacts on nationally important invertebrate assemblages

IAs are nationally or internationally significant areas for nationally important populations and assemblages of rare and scarce invertebrates and the specialist habitats which support them. The LTC scheme would result in the loss and increased fragmentation of important habitats within the Thames Estuary IIA. This includes the network of flower-rich, open habitats north of the River Thames which support remnant Thames Terrace Grasslands invertebrate assemblages. Many of these are designated as Habitats and Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Several Local Wildlife Sites (LoWS) in Essex that support these nationally important invertebrate assemblages, including Low Street Pit, Blackshots Nature Area, Mucking Heath and Rainbow Shaw will be totally or partially lost as a result of the LTC scheme. Much of the wildlife-rich brownfield habitat formerly existing in Thurrock has already been destroyed by development in the region, and the continued loss of these wildlife-rich sites in the Thames Estuary poses a serious threat to the long-term future of the estuary's nationally important invertebrate populations.

### 2. Impacts on Thames Estuary and Marshes SPA

The construction phase of the LTC scheme will result in disturbance impacts on designated waterbird features of the Thames Estuary and Marshes SPA. Mitigation proposals include the creation of wetland habitat at Coalhouse Point; it is essential that the works to create this habitat are delivered as soon as practicable so that the habitat has time to develop. It must be fully ecologically functional prior to the commencement of the construction works predicted to result in adverse impacts.

It is a matter of serious concern that the deliverability of this essential mitigation habitat is under threat, due to the failure to secure a suitable supply of freshwater. An agreement needs to be reached and secured before the DCO examination is completed.

The habitat creation works at Coalhouse Point should apply seasonal mitigation measures and avoid the wintering bird season (Sept to March).

The applicant's Statement to Inform an Appropriate Assessment (APP-487: Document Reference 6.5) reported a conclusion of no adverse impact on the integrity of the Thames Estuary and Marshes SPA. This conclusion is very much dependent on the successful implementation of an array of mitigation measures and their effectively secured ongoing management in perpetuity.

### **3. Impacts on ancient woodland and veteran trees**

The LTC scheme will result in very significant and irreversible adverse impacts on ancient woodland and ancient and veteran trees, resulting in loss and/or long-term deterioration of these nationally important irreplaceable habitats. A total of 7.62ha of ancient woodland and six ancient and veteran trees will be destroyed by the project across Kent and Essex. Current proposals for mitigation and compensation are insufficient; we endorse Kent Wildlife Trust's position that the compensation ratio for ancient woodland should be increased to 30:1.

### **4. Water vole mitigation**

The LTC scheme will result in significant impacts on regionally important water vole habitat, with the loss of coastal ditch networks that currently support water vole populations north of the Thames. The proposed mitigation outlined in the LEMP in Section 8.17 (LE6.2 Banks and Ditches) includes the creation of replacement ditch networks. Table 8.18 outlines the establishment regime and discusses mink control measures. We wish to point out that these measures are insufficient and are not in line with Natural England's current water vole conservation strategy.

The new ditches should be incorporated into the Eastern Region Water Vole Species Conservation Strategy (WVSCS) mink eradication scheme coordinated by Essex Wildlife Trust on behalf of the Waterlife Recovery Trust. Smart trap technology should be employed to remove mink and all captures recorded on the Regional Mink Database. Carcasses should be transported to Cambridge University for DNA analysis as part of the WVSCS.

Section 8.17.7 (Outline measures of success), paragraph (i) also discusses mink control. This needs to be amended. Under Natural England's Water Vole Species Conservation Strategy pilot the whole of Norfolk, Suffolk and Essex has now moved to mink eradication, not control. We would expect to see no breeding mink within the area within 2 years and complete absence of transitory mink after 5 years.

### **5. Impacts on acid grassland**

Three Local Wildlife Sites (LoWS) in Essex which comprise rare acid grassland habitat will be impacted by the scheme; Low Street Pit, Blackshots Nature Reserve and Mucking Heath LWS. The mitigation proposals include soil translocation, but these require clarification and a justification of the suggested 4:1 compensation ratio. We currently do not have sufficient confidence in the reliability and success rate of this technique.

### **6. Biodiversity Net Gain**

The Environment Act 2021 makes biodiversity net gain (BNG) a mandatory requirement for Nationally Significant Infrastructure Projects (NSIPs), and projects must deliver a minimum of 10% BNG. The LTC scheme currently has a 7% net gain in habitat units, -11% in hedgerow units and -7% in river units. Consequently it fails to meet the minimum threshold for BNG and the Defra Metric trading rules are not satisfied. Further refinement of the scheme is needed if the minimum target of 10% BNG is to be achieved. The applicant should demonstrate how the ten Biodiversity Net Gain Good Practice Principles have been applied.

## 7. Pulverised Fuel Ash

We welcome the proposal to utilise Pulverised Fuel Ash (PFA) in the creation of compensatory invertebrate habitat. However, given the importance of this substrate in creating the specialised habitats which support unique Thames Terrace invertebrate assemblages, we would expect a greater commitment from National Highways to maximise the use of PFA in the creation of grassland and Open Mosaic Habitat (OMH), over and above the current commitment to 5%. There is an opportunity for the LTC scheme to deliver a significant contribution to nature's recovery across the landscape around the north portal. The Landscape and Environmental Management Plan (LEMP) should be amended in this regard.

## 8. Additional comments

The LTC scheme will undermine the Government's commitments to addressing the climate and biodiversity crisis, with total net greenhouse gas emissions of approximately 6.596 million tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). The scheme will also result in increased nitrogen pollution. This can adversely impact on sensitive ecological receptors, as nitrogen deposition is likely to result in degradation of habitats. Low nutrient habitats are particularly vulnerable to soil enrichment caused by nitrogen deposition, which can result in loss of early successional features and a reduction in floral diversity. It can also impact on bare ground habitats which provide a vital resource for many rare and scarce invertebrates. Nitrogen deposition could also reduce the long-term predicted biodiversity opportunities provided by the low nutrient substrate habitats detailed in the LEMP.

The construction of the road and its operation will create a significant barrier effect across the South Essex landscape, resulting in the displacement of species through direct habitat loss and fragmentation, and increased wildlife road traffic collision mortalities. While we welcome the inclusion of green bridges in the scheme design, we have concerns that the proposed mixed-use green bridges will have limited wildlife mitigation value. In our view, the focus of the green bridges should be re-imagined to make them more wildlife-friendly.

The LTC scheme aims to deliver economic growth, which will result in further greenhouse gas emissions through new developments, and further loss of carbon storage and sequestration habitats. We have major concerns about the cumulative impacts of the scheme and the risk of increased development encroachment on protected wildlife sites and the scheme's newly created habitats.

Kind regards,



Annie Gordon  
Conservation Planning Coordinator  
Essex Wildlife Trust



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