

The Planning Inspectorate
Temple Quay House
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Our ref: KT/2023/130735/01
Your ref: 20035862
Date: 18 July 2023

Dear Examining Authority

Lower Thames Crossing (TR010032) Development Consent Order Application

Please find below our Written Representation on behalf of the Environment Agency in relation to the application for a Development Consent Order for the Lower Thames Crossing made by National Highways (NH). This also provides our response to action 6 from the Issue Specific Hearing 2 on the draft Development Consent Order held on 22 June 2023.

The Environment Agency's Role

The Environment Agency works to create better places for people and wildlife.

We were established to bring together responsibilities for protecting and improving the environment and to contribute to sustainable development. We take an integrated approach in which we consider all elements of the environment when we plan and carry out our work. This allows us to advise on the best environmental options and solutions, taking into account the different impacts on water, land, air, resources and energy.

We help prevent hundreds of millions of pounds worth of damage from flooding. Our work helps to support a greener economy through protecting and improving the natural environment for beneficial uses, working with businesses to reduce waste and save money, and helping to ensure that the UK economy is ready to cope with climate change. We will facilitate, as appropriate, the development of low carbon sources of energy ensuring people and the environment are properly protected.

We have three main roles:

- We are an **environmental regulator** – we take a risk-based approach and target our effort to maintain and improve environmental standards and to minimise unnecessary burdens on businesses. We issue a range of permits and consents.
- We are an **environmental operator** – we are a national organisation that operates locally. We work with people and communities across England to

protect and improve the environment in an integrated way. We provide a vital incident response capability.

- We are an **environmental adviser** – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making.

Please see the following sections below for further information:

- The Environment Agency's Position on Lower Thames Crossing
- Structure of the Environment Agency's response
- Flood Risk
- Water resources and quality
- Terrestrial Biology
- Permitting and waste
- Protective Provisions
- Draft Development Consent Order Requirements
- Summary of Written Representation

Yours sincerely

Richard Penn
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The Environment Agency's position on Lower Thames Crossing

- 1.1. We will support the Examining Authority by advising them if the application is in line with our role and objectives to create better places for people and wildlife. This is so that the Examining Authority can be satisfied that their recommendation to the Secretary of State for Transport in relation to the application for the Development Consent Order (DCO) can be made taking full account of environmental impacts.

Consultation

- 1.2. Following the submission of our [Relevant Representation](#) on 24 February 2023 we have continued to work with National Highways (NH) in respect of the issues raised. The purpose of this Written Representation is to provide an update on our Relevant Representation and provide further information where we have outstanding areas of concern. All matters agreed with NH are set out in our updated Statement of Common Ground (submitted to the Examining Authority at deadline 1).
- 1.3. There remain a few outstanding issues that we are still working through to prevent environmental harm and there is still further information to be submitted around these and other areas of interest. This is in part to do with the complicated nature of the environmental conditions in relation to the needs of the project and partly due to the timescales for solutions to be found as these issues are worked through.

Summary of Issues resolved since Relevant Representation

- 1.4. **Water Resources**- The quantitative status of the South Essex Thurrock Chalk Waterbody was updated from poor to good in September 2022 under the Water Framework Directive (WFD) classifications ([APP-478 Appendix 14.7 - Water Framework Directive](#)). We agree with the findings of NH's technical note that the change in status of the South Essex Thurrock Chalk Waterbody does not alter any of the conclusions of the WFD assessment.

Summary of Outstanding Issues of Concern

- 1.5. We believe that some of the remaining issues can be resolved, subject to further endeavours by NH in accordance with the suggested solutions provided in this Written Representation.
- 1.6. **Flood Risk** – We have yet to agree the flood modelling, engineering designs and operational methodology for the tidal exchange structure at Coalhouse Fort. This is one of the options to ensure that there is enough water supply for this area to form part of the Habitat Risk Assessment compensation land.

- 1.7. **Terrestrial Ecology** – The proposed use of culverts will have significant impacts to watercourses, designated habitats and protected species. The current design includes a 48 metre culvert of the Main River, Tilbury Main.
- 1.8. **Water Framework Directive (WFD)** – The culverting of the Tilbury Main will cause deterioration in the WFD status of this catchment. An exemption will be required in accordance with Regulation 19 Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 - Modifications to physical characteristics of water bodies.
- 1.9. **Alignment between submission of Environmental Permits and DCO** – At this time we must highlight that we are currently unable to advise the Examining Authority of our position on the environmental permits required for this project. Pre-permit application discussions are still ongoing.
- 1.10. **Protective Provisions** – We have agreed to amended protective provisions, with the exception of paragraph 116(5) relating to environmental permits, which is still under discussion.
- 1.11. **Draft Development Consent Order Requirements-** We consider there should be some amendments to requirement 6 (contaminated land and groundwater), requirement 8 (surface and foul drainage) and the discharge provisions.

Structure of the Environment Agency Response

- 1.12. In the body of the detailed comments we have updated matters set out in our [Relevant Representation](#), including matters which have now been agreed and those which are still outstanding or not agreed, which we would like the Examining Authority to take into account when considering this DCO application. In some cases we need more information to advise the Examining Authority and we request it be provided to be considered during the examination.
- 1.13. We note that other bodies are involved in the project, such as the Marine Management Organisation and Natural England, with interests in common to ourselves. We have had discussions with these bodies throughout the pre-examination period already and will continue to discuss further and collaborate with these organisations where appropriate throughout the examination.
- 1.14. We will make representations at relevant oral hearings as appropriate. We will keep the matters set out under review and update the Examining Authority on progress with the resolution of these issues at appropriate points as the examination progresses, including as part of updates to our Statement of Common Ground (SOCG).

2. Flood Risk

- 2.1. Please refer to our [Relevant Representation](#) for the overview and issues agreed.

New information published since submission of the draft DCO

- 2.2. Please note that the updated Thames Estuary 2100 Plan (May 2023), with supporting extreme water levels for a range of tidal return periods and climate change scenarios, has been published since the draft DCO was submitted. This is a strategic plan for adapting to rising sea levels in the estuary.
- 2.3. The applicant is considering whether this new information has any implications for the Flood Modelling and Flood Risk Assessment and will issue a note setting out their assessment. We will review this information once issued.

Areas outstanding

Coalhouse Fort Flood Modelling

- 2.4. We are still discussing land near Coalhouse Fort which forms part of the new habitats detailed in the Habitats Regulations Assessment (*HRA (Application Document 6.5)*) [APP-487](#) and [APP-488](#)).
- 2.5. NH will provide us with flood modelling and designs and operations methodologies for the structure(s) needed to create this (SoCG item 2.1.35; [APP-337 Code of Construction Practice, REAC Commitment RDWE049 - Water supply and water level control at Coalhouse Point wetland](#)).
- 2.6. NH has presented two options to us: 1. To install a new regulated tidal exchange structure or 2. Utilise the existing drain from the Coalhouse Fort moat through agreement with Thurrock Council. We favour option 2 as it doesn't require disturbance of the existing embankments. If option 1 were to be pursued, engagement should be undertaken with relevant landowners and stakeholders, Statutory Environmental Bodies, local authorities and Statutory Undertakers. Only then would such an option be approved by the Environment Agency in line with 'submission and approval of plans' as required by the Protective Provisions.
- 2.7. NH plan to issue flood risk modelling for Coalhouse Fort and an explanatory technical note in August 2023. We will review this information once issued.

3. Water resources and quality

3.1. Please refer to our [Relevant Representation](#) for the overview and issues agreed.

Areas now agreed (compared with relevant representation)

3.2. The South Essex Thurrock Chalk waterbody has been remodelled into a multi-layer groundwater body which is more reflective of the hydrogeology of the area, which makes more sense from a hydrogeological perspective. The remodelling affected the resource balance calculation, Test 1 of the quantitative status, and moved the groundwater body from poor to good.

3.3. The quantitative status of the South Essex Thurrock Chalk Waterbody was updated from poor to good in September 2022 under the Water Framework Directive (WFD) classifications. NH provided the Environment Agency with a technical note setting out any potential implications linked to the WFD status change. We agree with the findings of NH's technical note that the change in status of the South Essex Thurrock Chalk Waterbody does not alter any of the conclusions of the WFD assessment (SoCG item 2.1.28, [APP-478 Appendix 14.7 - Water Framework Directive](#)). Therefore, we can now agree this outstanding issue which is reflected in the updated Statement of Common Ground.

4. Terrestrial Biodiversity

4.1. Please refer to our [Relevant Representation](#) for the overview and issues agreed.

Areas outstanding

Culverting and loss of WFD habitat

4.2. Due to the location of the tunnel portal on the northern bank of the Thames, the new road will cross the main river, Tilbury Main. Watercourses are important linear features of the landscape and should be maintained as continuous corridors to maximise their benefits to society. Freshwater fish are protected under the Salmon and Freshwater Fisheries Act 1975 and are a biological quality element assessed as part of classification for WFD (WFD UK Technical Advisory Group, 2014). Macrophytes (aquatic plants large enough to be seen by the naked eye) are also a biological quality element assessed as part of classification for WFD.

4.3. As part of the pre application discussions, a 'Choosing by Advantage' workshop was held with the Environment Agency and NH where the options for this crossing were investigated in detail and the least-worst option was for the main river to be culverted. The proposed culvert was originally 83 metres long. This has since been designed down to 48 metres (SoCG item 2.1.30,

[APP-478 Appendix 14.7 - Water Framework Directive](#)) but this is still not acceptable. We have a formal policy against culverting of any watercourse because of the adverse ecological, flood risk, geomorphological, human safety and aesthetic impacts (SoCG item 2.1.29, [APP-516 Design Principles](#)). The proposed culverting of Tilbury Main would be contrary to the Thames River Basin Management Plan's objective (updated 2022) to prevent the deterioration of water bodies. There is no evidence that the species using this river will travel through a culvert of this length and as such, it breaks the continuity of the watercourse. This barrier to wildlife movement between the upstream and downstream sections of the Tilbury Main will result in permanent habitat fragmentation along the Tilbury Main, a loss of WFD habitat (SoCG item 2.1.31, [APP-478 Appendix 14.7 - Water Framework Directive](#)). Although the Environment Agency does not agree with culverting in principle, we do accept this is the least environmentally damaging option.

- 4.4. Proposed mitigation for the channel and freshwater habitat loss from the Tilbury Main includes land in the Mardyke catchment at Orsett Fen (SoCG item 2.1.32, [APP-478 Appendix 14.7 - Water Framework Directive](#)). An area of land of 29.5 hectares has been secured to create lost fen habitat made up of a network of ditches and open water bodies. This design will recreate lost habitat in this catchment, provide a net gain in water body length, and create the opportunity for better quality freshwater habitats to be present to the ones lost through culverting.
- 4.5. Freshwater habitat compensation should be mitigated in the same catchment area as the impacted WFD habitat (SoCG item 2.1.34, [APP-478 Appendix 14.7 - Water Framework Directive](#)). Although the majority of the mitigation habitat will be in the neighbouring Mardyke catchment, some compensation will also be provided in the West Tilbury Main catchment by the removal of three existing culverts on the ordinary watercourses, and reinstating 125m of open watercourse by the removal of an existing culvert ([APP-478 Appendix 14.7 – Water Framework Directive](#)).
- 4.6. Although the Environment Agency does not agree with the loss of Water Framework Directive habitat, we agree that the freshwater enhancements will provide an overall increase in freshwater habitat.
- 4.7. The Environment Agency still opposes the culverting even though the length has been reduced. It is for the applicant to make a case to the Secretary of State for Transport under Regulation 19 of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 that the culverting should be allowed.

5. Permitting and waste

5.1. Please refer to our [Relevant Representation](#) for the overview.

Areas outstanding

- 5.2. The main area of focus in the ongoing pre-permitting discussions is agreeing a permitting strategy. This will provide clarity on matters which will be covered by the permitting process and those which are covered by the Development Consent Order. Without agreeing this, the Environment Agency is unable to comment on timescales or provide representations on any matters covered by those permits. We will want to be able to resolve the outstanding issues but we cannot advise on the outcomes of these discussions with the level of detail we have at the moment.
- 5.3. We are expecting NH to issue a Permitting Strategy for our review shortly, and we will continue our discussions with NH throughout the examination.
- 5.4. The pre-permitting discussions have been concentrating on the landfill permitting scenarios, which relate to whether we amend existing / third party permits, have over-lapping permits or a combination of both. We also need to permit other waste activities such as the transfer or treatment of waste, water abstractions and discharges to the environment. We require greater detail on individual sites within the project to ensure there is the time available to work through the process.
- 5.5. Another area of the ongoing discussions are the relationships between the current third party permits (SoCG item 2.1.7, [APP-056 3.1 Draft Development Consent Order](#)), whose activities may be affected by the NH operations within the red line boundary.
- 5.6. We expect that the detailed design phases will provide the final clarity and the current discussions will look to provide a framework to enable the future delivery of the permitting strategy and provide the protection of the environment afforded by the permitting regimes.

6. Protective Provisions

Areas outstanding

- 6.1. We have agreed in principle with NH's request to disapply Flood Risk Activity Permits, subject to the inclusion of acceptable Protective Provisions within the draft Development Consent Order. The Protective Provisions included within the draft Development Consent Order submitted to the Examining Authority ([AS-056 3.1 Draft Development Consent Order](#)) were not acceptable to the Environment Agency.

- 6.2. Following further discussion, NH have agreed to amendments to the Protective Provisions which are now acceptable to us excepting one issue. The only outstanding issue is the paragraph 116(5) relating to environmental permits (SOCG item 2.1.5 Protective Provisions).
- 6.3. This paragraph relates to environmental permits issued under the Environmental Permitting Regulations 2016 that are held by third parties and may interact with land that is inside the Project's Order Limits and therefore the Project's construction operations. NH has stated the drafting is intended to give NH and third parties protection against enforcement action in relation to any such existing environmental permits. This would be needed in the event that construction operations for the Project do not align with activities authorised by an environmental permit held by a third party, but over which NH has no control.
- 6.4. It will not be acceptable to the Environment Agency for NH to be able to override existing environmental controls contained in environmental permits, which is the effect of this provision. The provision would have a very similar effect to a disapplication of permit requirements under section 150 of the Planning Act, which we have not agreed to. Instead, NH will need to work with the Environment Agency and third party permit holders to ensure that the environmental risks controlled by existing permits are not undermined by the proposed works. The Environment Agency will try to assist (consistent with its regulatory role) in terms of any applications for variation, transfer or surrender of existing permits that may be necessary as a result of the proposed works. However, allowing the proposed works to override all existing environmental controls to the extent there is any conflict, would give rise to significant environmental risks and the Environment Agency cannot support this proposed provision.
- 6.5. NH have supplied a list of permits which will be affected by the works. As examples, the two main landfills that are affected by the proposed works are Goshems Farm and Tilbury Ashfields. Both are operational. The works will involve the disposal of the tunnel arisings and the re-deposit of waste from operational landfills to make way for tunnelling works and infrastructure. This will include works which either temporarily or permanently penetrate the base or sidewalls of the existing permitted landfills and overtip the top of the landfills.
- 6.6. In this scenario as an example, a new landfill would need to be built on top of an existing landfill (in this case Goshems Farm) by constructing a Landfill Directive compliant liner over the existing waste. NH will need to demonstrate sufficient separation so that we can be sure there will be a stable boundary which can always be identified and that we know which site is which. The validity of NH's proposals will depend on whether the areas are able to operate independently as functionally self-contained landfills and

show that no waste or leachate and/or gas could migrate from one site to another. NH will need to demonstrate that the overtipping will not have an adverse effect on the existing waste or prevent any necessary remediation works that might arise. Any construction works, particularly piling or other intrusive works, must not cause an unacceptable discharge from the existing landfill area.

- 6.7. To manage the potentially significant environmental risks of the proposals, the Environment Agency will need to be able to enforce existing permits and new permits, in the usual way. There may be issues around NH causing existing permit holders to breach their permit conditions if they do anything that prevents them complying with their permit (and the visa versa). We will need to be able to manage this through the environmental permitting framework in the usual way.
- 6.8. NH cannot do works at a permitted facility that will cause the operator to be non-compliant with the requirements of the permit's conditions. They must satisfy us that it will not allow, or increase, the risk of pollution. They must not jeopardise requirements both for ongoing compliance monitoring and future monitoring and site investigation to gather evidence for permit surrender. If anything goes wrong, we need to be able to clearly identify who is responsible for what and then require necessary remedial action, through the use of our enforcement powers.
- 6.9. If we are unable to take enforcement action there could be significant risks of pollution, for example, through an unacceptable discharge of pollutants to groundwater or surface water, or emissions such as hazardous landfill gas, or amenity issues such as noise, dust and odour.
- 6.10. So to conclude, we cannot agree to the disapplication of our enforcement powers in the way proposed by paragraph 116 (5) of the protective provisions.

7. Draft Development Consent Order Requirements

- 7.1. With regards to the requirements set out in Schedule 2 to the draft Development Consent (dDCO) ([AS-056](#) 3.1 *Draft Development Consent Order*) we have the following comments:

Requirement 6 (contaminated land and groundwater)

- 7.2. In respect of Requirement 6 (contaminated land and groundwater), we consider that the draft DCO should refer to "land contamination" rather than "contaminated land." The term "contaminated land" is used specifically in the Contaminated Land Regulations (England) (2006) to refer to a piece of land

that has been designated as such by an enforcing authority (usually a Local Authority, but in some specific cases, the Environment Agency).

7.3. Sub-paragraph (2) starts by saying “Where the undertaker determines that remediation of the contaminated land is necessary...” We do not agree that the dDCO should give the undertaker the decision as to whether remediation is necessary or not. A better approach would be to say “Where the risk assessment from (1) indicates that remediation of the contaminated land is necessary...”

7.4. We would like to add sub-paragraph (4) to require the undertaker to prepare and submit a Validation Report demonstrating the completion of works set out in the approved remediation strategy from (3) and the effectiveness of the remediation shall be submitted to, and approved in writing, by the Secretary of State, the relevant planning authority and the Environment Agency. The report shall include results of sampling and monitoring carried out in accordance with the approved scheme to demonstrate that the site remediation criteria have been met.

Requirement 8 (surface and foul water drainage)

7.5. We would like to be a consultee on Requirement 8 (surface and foul water drainage) due to our role in regulating the drainage discharges from this project.

Discharge Provisions

7.6. We consider that in relation to the discharge provisions at 18(2) this provision should be for deemed refusal, not deemed consent.

7.7. We are otherwise content with the draft requirements.

Summary of Lower Thames Crossing Written Representation: Environment Agency (Interested Party Reference 20035862)

- 1.1. We will support the Examining Authority by advising them if the application is in line with our objectives to create better places for people and wildlife.

Consultation

- 1.2. Following the submission of our [Relevant Representation](#) on 24 February 2023 we have continued to work with National Highways (NH) in respect of the issues raised. The purpose of this Written Representation is to provide an update on our Relevant Representation and provide further information where we have outstanding areas of concern.

Issues resolved since Relevant Representation

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Outstanding Issues of Concern

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groundwater), requirement 8 (surface and foul drainage) and the discharge provisions.