

The Planning Inspectorate  
Major Applications and Plans  
Temple Quay House  
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**Our ref:** KT/2023/130482/01-L01  
**Your ref:** TR010032  
**Date:** 24 February 2023

Dear Planning Inspectorate Team

## **LOWER THAMES CROSSING DEVELOPMENT CONSENT ORDER APPLICATION**

Please find below our Relevant Representation on behalf of the Environment Agency in relation to the application for a Development Consent Order (DCO) for the Lower Thames Crossing made by National Highways (NH).

### **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.

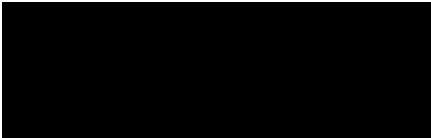
We have three main roles:

- 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.

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 these objectives so that they can be satisfied that their recommendation in relation to the application for the DCO can be made taking full account of environmental impacts.

### Pre-application consultation

- 1.2 We have worked with NH and their consultants throughout the pre-application stage of the DCO to advise them as they have developed the proposals for Lower Thames Crossing. We have made comprehensive comments in response to each of NHs pre-application consultations. Throughout that process, and in the subsequent lead up to their DCO application, we have had extensive discussions to address issues and provide advice raised in response to their proposals. We have also been engaging with NH to seek common ground and will continue to progress to do so throughout the pre-examination process.
- 1.3 We have a positive working relationship with NH and we have agreed a number of measures, including alterations to the design and construction, use of best practice and environmental monitoring and response, which have been included in their application. These support the protection of the environment, local habitats and protected species.
- 1.4 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.

### 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 Relevant Representation.
- 1.5.1 **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 (HRA) compensation land.

- 1.5.2 **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.
- 1.5.3 **Water Framework Directive** – The culverting of the Tilbury Main will cause deterioration in Water Framework Directive (WFD) status of this catchment. An exemption will be required in accordance with Regulation 19 - Modifications to physical characteristics of water bodies.
- 1.5.4 **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.
- 1.5.5 **Protective provisions** – The protective provisions included within the draft development consent order are not acceptable to the Environment Agency. We are in discussion with the applicants and hope that it will be possible to agree protective provisions soon.

### **Structure of the Environment Agency response**

- 1.6 In the body of the detailed comments we identify the issues we would like the Examining Authority to take into account when considering this DCO application. We have outlined the issue, what the impact is, and the current situation, along with highlighting agreed areas of note within the project. Due to the geographical scale of the project we have split our response into five distinct sections; A2/M2 to south portal; Tunnel; North portal and marshes; Mardyke and A13; and M25. If there are no significant issues to raise within a section it has been omitted.
- 1.7 We note that other bodies are involved in the project, such as the Marine Management Organisation and Natural England, with overlapping interests 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.
- 1.8 The Environment Agency intends to attend the Preliminary Meeting and to make further written representations if necessary. We may also make oral representations at any relevant hearings. We may add to or amend the matters set out in this Relevant Representation. 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.

- 1.9 We have a draft Statement of Common Ground (SoCG) with NH ([APP-094](#)) which will be updated in March 2023 to reflect the ongoing discussions outlined below. We will refer to the corresponding SoCG item for our comments below. Where commitments have been made in the Register of Environmental Actions and Commitments (REAC), these are detailed in the SoCG. All references in this document refer to the October 2022 version published at the start of the submission.

## 2 **Flood Risk**

### **Overview**

- 2.1 The route of the Lower Thames Crossing scheme crosses areas of Flood Zone 3 (high probability of flooding) from both rivers and the sea. It also interacts with a number of flood protection assets owned or operated by the Environment Agency. Further information about these is covered in the geographical area sections below.
- 2.2 During the pre-application discussions with NH we raised the importance for the DCO application to be supported by an adequate Flood Risk Assessment (FRA), based on information from appropriate flood risk modelling that demonstrates that there will be no increased risk of flooding on-site or elsewhere ([SoCG item 2.1.54](#)). It was also important that the proposals and future options took account of the Thames Estuary 2100 (TE2100) Plan, including the provision of a future Thames Barrier.
- 2.3 We advised that Flood Risk Activity Permits (FRAP) would be required for works are proposed within 8 metres of the bank, flood defence structure or culvert of a main river, or 16 metres of a tidal main river ([SoCG item 2.1.3](#)).
- 2.3.1 **A2/M2 to south portal**  
The new road link and south tunnel portal are not located in an area of flood risk. The tunnel route passes under the sea defence asset protecting Gravesend and freshwater marshes. Monitoring of this asset has been agreed to ensure that the level of protection provided is not compromised by the project ([APP-337 Code of Construction Practice, REAC Commitment RDWE007- Protection of flood defences from ground movement](#)). The Environment Agency wishes to secure access to the asset for inspections, maintenance and future raising ([SoCG item 2.1.8](#); [APP-045 River Restrictions Plan](#)). The tunnel lining has been designed to accommodate the load of future increase of flood defences to a height of 8.0m Above Ordnance Datum (AOD) ([SoCG item 2.1.68](#)).
- 2.3.2 **North portal and marshes**  
The north portal of the tunnel is situated in Flood Zone 3 and Flood Zone 2 for tidal flooding. The route of the new road also crosses the Main River, Tilbury Main, and its flood plain. There are two

Environment Agency flood assets that support the flood defences and management of water in this area, Bowaters sluice and Star Dam.

- 2.3.3 NH has carried out both breach and fluvial models for the Tilbury Main area ([SoCG item 2.1.56](#); [APP-465 Appendix 14.6 - Flood Risk Assessment – Part 6](#)). We have agreed the models are sufficient to inform the Flood Risk Assessment for this area, in accordance with a precautionary approach where national guidance differs. Where fluvial floodplain compensation is required for this area, it will be largely provided by intercepting upstream flows. Providing level-for level compensation is not possible in this catchment due to the low lying and flat floodplain. Floodplain compensation is not a requirement for tidal flooding.
- 2.3.4 Bowaters sluice forms part of the defences for fluvial flow outfalls to the River Thames. It is 75% blocked and isn't always able to drain when the tide is in, tide locked. The model uses the assumption that the asset Bowater's Sluice is 100% blocked, so the Project would remain operational if Bowater's Sluice failed. We have agreed that defence monitoring of Bowater's Sluice is not required as the project will not increase surface water flood volumes and so will not increase flood risk elsewhere if Bowater's Sluice outfall fails ([SoCG item 2.1.59](#); [APP-465 Appendix 14.6 - Flood Risk Assessment – Part 6](#)).
- 2.3.5 Star Dam is an inland defence that prevents tidal flood water flowing between the West and East Tilbury Marshes. We agreed that a blockage of Star Dam would not cause flooding of the tunnel portal, so will not affect flood extents or depths ([SoCG item 2.1.61](#); [APP-464 Appendix 14.6 - Flood Risk Assessment – Part 5](#)).
- 2.3.6 **Mardyke and A13**  
The new road alignment crosses three Main Rivers in this section, the Mardyke, Orsett Fen and Golden Sewer. There are areas where the road alignment is in Flood Zone 2 and 3. NH have followed our recommendation for clear span crossings of these rivers to maintain the natural ecosystem and provide access for maintenance and operation of flood risk assets ([SoCG item 2.1.67](#); [APP-516 Design Principles S12.05 - Height of the Mardyke and Orsett Fen Viaducts](#)).
- 2.3.7 Fluvial flood modelling for the Mardyke catchment has been completed. We have agreed the models are sufficient to inform the Flood Risk Assessment for this area, in accordance with a precautionary approach where national guidance differs. The project does reduce the size of the functional floodplain in this area and the proposed floodplain compensation has been agreed with us ([SoCG item 2.1.72](#); [APP-463 Appendix 14.6 – Flood Risk Assessment – Part 4](#)). This compensation will be provided using a hydraulically linked level-for level basis.

### 2.3.8 Thames Estuary 2100 and Defences

The location options for the new Thames Barrier proposed in the TE2100 Plan are located outside the Order Limits so have not been considered in the Environment Statement. We have agreed the Future Thames Barrier breach modelling ([SoCG item 2.1.73](#); [APP-465 Appendix 14.6 - Flood Risk Assessment – Part 6](#)).

### 2.3.9 Additional information

NH has committed to monitor flood defences to establish a preconstruction baseline for at least two years after completion of works ([SoCG item 2.1.66](#); [APP-337 Code of Construction Practice, REAC Commitment RDWE007- Protection of flood defences from ground movement](#)). The Environment Agency have agreed the proposals would not compromise our ability to maintain and operate our assets. We are also satisfied the proposals should not compromise our ability to raise defences in the future. The contractors' scope sets out that the tunnel lining shall be designed to accommodate the load of a future increase in river flood defences height to 8.0 metres AOD.

2.3.10 NH have agreed the production of an evacuation plan and flood warning system would form part of the safety components of any site compound ([SoCG 2.1.69](#); [APP-337 Code of Construction Practice, REAC Commitment RDWE022 - A226 Gravesend Road, Milton, northern tunnel entrance, Station Road and Mardyke compounds, and REAC Commitment RDWE001 - Construction flood risk](#)).

2.3.11 We have agreed that utility crossings (such as footpaths and farm access tracks) are out of scope of the modelling, as generally changes in flood levels are within  $\pm 10\text{mm}$ , which is classified by NH as 'negligible'. The REAC commits to the use of trenchless techniques for crossing watercourses ([SoCG item 2.1.70](#); [APP-337 Code of Construction Practice, REAC Commitment RDWE008 - Protection of watercourses during utility works](#)).

2.3.12 The models were re-run to reflect the latest peak river flow allowances released in 2021 ([SoCG item 2.1.62](#)). The updated climate change peak rainfall allowance released in 2022 is within 5% and therefore we have agreed the fluvial model does not need to be re-run.

## Areas outstanding

### 2.4 Coalhouse Fort Flood Modelling

We are still discussing land near Coalhouse Fort which forms part of the new habitats detailed in the HRA. NH are providing us with flood modelling and designs and operations methodologies for the structure(s) needed to create this. A timeline for this information has been agreed and will progress up to the examination period ([SoCG item 2.1.35](#); [APP-337 Code of Construction Practice, REAC Commitment RDWE049 - Water supply and water level control at Coalhouse Point wetland](#)).



### **3 Water resources and quality**

#### **Overview**

- 3.1 The route of the Lower Thames Crossing crosses varying geology and land use (existing and historic). Groundwater is very important in the South East for both people (drinking water supplies and irrigation) and wildlife (water dependent habitats). There are sensitive groundwater bodies that provide drinking water supply both north and south of the River Thames.
- 3.2 Groundwater modelling, desk studies ([APP-454](#) and [APP-455 Appendix 14.2 – Water Features Survey Factual Report](#)) and ground investigations have been carried out to inform the understanding of the groundwater and surface water conditions for the project. During the pre-application stage of the DCO, the Environment Agency has undertaken a series of reviews of the model ([SoCG items 2.1.37 and 2.1.42; APP-458 and APP-459 Appendix 14.5 – Hydrogeological Risk Assessment](#)) and provided advice to NH with the aim of ensuring that the model is a sound evidence base. The modelling work which has been submitted is acceptable. We also worked continuously with the contractors for the ground investigation during the planning and operation phases. The ground investigation work which has been submitted is acceptable ([SoCG items 2.1.36 and 2.1.38; APP-430, APP-431, and APP-432 Appendix 10.9 - Generic Quantitative Risk Assessment Report for the Phase 2 Investigation](#)).
- 3.2.1 A2/M2 to south portal**  
There were suspected pockets of historic contamination along the route of the proposed new road. The current ground conditions have been surveyed ([SoCG item 2.1.40; APP-429 Appendix 10.8 – Generic Quantitative Risk Assessment Report for the Phase 1 Investigation](#)) and we agree with the findings and suggested measures in the report.
- 3.2.2 The run-off from the operational road could cause pollution to the water courses near the road. The marsh systems are all interlinked and valuable wildlife habitats. We have agreed the drainage proposals for this part of the scheme ([SoCG item 2.1.15; APP-337 Code of Construction Practice, REAC Commitment RDWE033 Discharge from construction of South Portal, and SoCG item 2.1.53 APP-466 Appendix 14.6 - Flood Risk Assessment - Part 7](#)).
- 3.2.3 Although the location of the South Tunnel Portal is outside of the floodplain, there is still the possibility that the tunnel could impact the groundwater flow and levels, affecting the water dependent marshes to the east of Gravesend. NH carried out ground investigations to understand the water movement in the area and how pollutants and saline intrusion from the Thames would move during construction activities ([SoCG item 2.1.48, APP-458 and APP-459 Appendix 14.5 – Hydrogeological Risk Assessment](#)). A groundwater model was also carried out for this area. We have agreed to the model findings and proposals for this area. We have agreed monitoring to continue at key



points throughout the construction phase and that further dewatering / discharge requirements will need further permits for the work ([SoCG item 2.1.51](#), [APP-148 Chapter 10 – Geology and Soils](#), and [SoCG item 2.1.52](#), [APP-337 Code of Construction Practice](#), [REAC commitment HR008 Groundwater Surveillance](#)). Data from these ongoing investigations will be shared with us throughout the development.

3.2.4 One of the construction compounds is situated in the marsh area. Discharge from this compound could cause pollution to the surrounding water habitats, which in turn could impact neighbouring protected wildlife sites. As the exact nature and operation of the compound will be agreed in future phases of the project, NH have agreed that all compounds are to have a discharge permit ([SoCG item 2.1.2](#); [APP-337 Code of Construction Practice](#), [REAC Commitment RDWE033 Discharge from construction of South Portal](#)).

### 3.2.5 Tunnel

Although the tunnel will not interact with the River Thames, the construction activities may need to interact with it. We have agreed with NHs assessment of water quality impact to the Thames. If this project progresses, WFD assessments on the impacts to the Thames for specific activities will be needed to obtain any Marine Management Organisation (MMO) licences ([SoCG item 2.1.20](#), [APP-337 Code of Construction Practice](#), [REAC Commitments RDWE023-Drainage discharge to River Thames](#), [RDWE025-Operational drainage design](#), [RDWE026-Tunnel operational drainage design](#), [RDWE028-Northern tunnel entrance compound drainage discharge design](#), and [GS022-North Portal](#)).

### 3.2.6 North portal and marshes

The North portal and new road are located between an operational permitted site, Goshams Farm, and a historic landfill, East Tilbury Landfill. East Tilbury Landfill is not within the red line boundary of the site other than an access track for ecological mitigation. Excessive interaction with this site as well as changes to the water table could cause pollutants to leach into the environment and harm the surrounding watercourses and the Linford public water supply ([SoCG item 2.1.25](#), [APP-337 Code of Construction Practice](#), [REAC Commitment GS020 East Tilbury access road](#); and [SoCG item 2.1.49](#), [APP-458](#) and [APP-459 Appendix 14.5 – Hydrogeological Risk Assessment](#)).

3.2.7 The desk-based investigations, groundwater models and ground investigations are sufficient to inform the East Tilbury Landfill Risk Assessment ([APP-428 Appendix 10.7 – East Tilbury Landfill Risk Assessment](#)). We agree with the proposed measures in this report to ensure that the environment and groundwater will not be polluted during construction and operation. Operations such as dewatering for the tunnel construction will be subject to a permit ([SoCG item 2.1.20](#); [APP-337 Code of Construction Practice](#), [REAC Commitments](#)

*RDWE023-Drainage discharge to River Thames, RDWE025-Operational drainage design, RDWE026-Tunnel operational drainage design, RDWE028-Northern tunnel entrance compound drainage discharge design; and GS022-North Portal).*

### 3.2.8 **M25**

The existing culvert and proposed cutting under the M25 need to be lowered for the project. This had the possibility of disrupting groundwater flow in the area impacting groundwater dependent wildlife sites and existing abstraction licences ([SoCG items 2.1.45](#), [APP-458](#) and [APP-459 Appendix 14.5 – Hydrogeological Risk Assessment](#); and [2.1.46](#), [APP-478 Appendix 14.7 - Water Framework Directive](#)).

Groundwater modelling has been carried out which provided evidence that the wildlife site would not be affected by the project ([SoCG item 2.1.47](#); [APP-458](#) and [APP-459 Appendix 14.5 – Hydrological Risk Assessment M25/Lower Thames Crossing Junction Groundwater Impact Assessment Numerical Model](#); [APP-337 Code of Construction Practice, REAC Commitments RDWE038 and RDWE015 reconfigure the water supply system at Low Street, and REAC Commitment RDWE016 new supply route across the road](#)). Although we agreed with this conclusion, investigations are ongoing to ensure that the scheme will not impact the abstraction for the landowner in this area. We are waiting for more data to be able to agree on suitable solutions.

### **Areas outstanding**

- 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 ([APP-478 Appendix 14.7 - Water Framework Directive](#)). NH will provide a technical note assessing any implications for us to review prior to examination ([SoCG item 2.1.28](#)).

## **4 Terrestrial Biodiversity**

### **Overview**

- 4.1 The Environment Agency is part of the Defra family along with Natural England (NE). There are areas where our responsibilities can overlap in relation to ecological advice and guidance. To ensure we provided the best advice for this project we agreed that NE would take the lead advisor role for the water based internationally designated wildlife sites (North Kent Marshes SSSI, SPA and Ramsar site) and take the lead advisor role for water dependent protected species that they are responsible for licencing (Water Voles and Otters). Our comments relate to impacts to the water environment through groundwater and surface water pollution and impacts to Main Rivers.

#### **4.1.1 A2/M2 to south portal**

Our concerns for this area have been addressed under the Water resources and quality section of this letter.

#### **4.1.2 North portal and marshes / Mardyke and A13**

The north portal and proposed new road alignment travel through freshwater marsh and cross four Main Rivers, the Tilbury Main, Mardyke, Orset Fen and Golden Sewer. Additional information about these sections of the route are covered in the areas outstanding section below.

4.1.3 We have agreed the assumption that eels will be present in all watercourses along the route and that NH will adopt best practice for fish and eel passage ([SoCG item 2.1.14](#), [APP-146 Chapter 8 – Terrestrial Biodiversity and APP-477 Appendix 14.6 - Flood Risk Assessment - Part 10](#)). Eels are a critically endangered species and the decline in eel stocks is an international concern. The Eel Regulations 2009 (for which the Environment Agency is the competent Authority) give us powers to protect eels from exploitation and entrainment and require improvements in passage to assist their migration over barriers and weirs.

#### **4.1.4 M25**

Our concerns for this area have been addressed under the Water resources and quality section of this letter.

#### **4.1.5 Additional information**

There is the possibility that in creating floodplain compensation additional impacts occur on habitats of nature conservation importance, including ditches and grazing marsh. We have agreed that the design of this requirement will also be used as an opportunity to include habitats which are of biodiversity value ([APP-478 Appendix 14.7 – Water Framework Directive](#)).

4.1.6 We have worked with NH on ensuring that there is a minimum no net loss of water course, and that these habitats are enhanced. The figures show that at completion of the project there will be an increase of ditches by 21.8 km and watercourses by 900 metres and a reduction of culvert length of 400 metres. These figures are not reflected in the Biodiversity Metric values ([SoCG item 2.1.18](#); [APP-417 Appendix 8.21 – Biodiversity Metric Calculations](#)) due to the worst-case scenario being calculated and the potential impacts of loss and reinstation of some of these habitats. We have also agreed that ecological mitigation and compensation will be carried out for both the construction as well as final stage of the scheme ([SoCG item 2.1.16 APP-337 Code of Construction Practice, REAC Commitment LV029 Landscape Planting](#)).

### **Areas outstanding**

#### **4.2 Culverting and loss of WFD habitat**

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 UKTAG, 2014). Macrophytes are also a biological quality element assessed as part of classification for WFD.

- 4.3 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 65 metres long. This has since been designed down to 48 metres ([SoCG item 2.1.30](#), [APP-478 Appendix 14.7 - Water Framework Directive](#)) 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](#)). There is no evidence that the species using this river will travel through a culvert of this length and as such, 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](#)).
- 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](#)).

## **5 Permitting and waste**

### **Overview**

- 5.1 The activities needed to construct the project may be subject to regulations, permits, licences and best practice ([SoCG item 2.1.1](#), [APP-058 Consents and Agreements Position Statement](#)). These are:

- Landfill Directive – this sets operational and technical requirements for disposal of waste by landfill, with the aim of reducing the negative effects of landfilling.
- Industrial Emissions Directive – this is for larger industrial facilities undertaking specific types of activity. They are required to use Best Available Techniques (BAT) to reduce emissions to air, water and land.
- Waste Framework Directive – this covers the definition of waste, end of waste, and quality protocols
- Water Resources Act 1991 – applies to anyone who wants to take more than twenty cubic metres of water each day from ground or surface waters
- Environmental Permitting Regulations 2016
- Statutory guidance (waste duty of care code of practice) - the Code of Practice requires anyone dealing with waste to keep it safe, make sure it's dealt with responsibly and only given to businesses authorised to take it.

5.2 The Environment Agency is currently in pre-permitting discussions with NH about the project. The areas of discussion are:

- the disposal of tunnel arisings which will comprise mostly of clay and chalk,
- re-deposit of waste from operational landfills to make way for tunnelling works and infrastructure,
- storage, transfer and treatment of waste pending recovery or deposit elsewhere,
- mobile plant for treatment of waste, and
- dewatering activities for tunnel construction.
- discharges to the environment

5.3 The types of permits under discussion for these activities include bespoke permits, deposit for recovery permits, standard rules, mobile plant, and some exemptions may be considered. Waste recovery plans will be required for the recovery permits.

### **Areas outstanding**

5.4 The main area of focus in the ongoing pre-permitting discussions is agreeing a permitting strategy. This will provide a comprehensive understanding of the extent of the permitting work required. Without 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 before examination but we cannot advise on the outcomes of these discussions with the level of detail we have at the moment.

5.5 The pre-permitting discussions have been concentrating on the landfill scenarios but 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.

- 5.6 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 maybe affected by the NH operations within the red line boundary.
- 5.7 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**

- 6.1 The protective provisions included within the draft development consent order are not acceptable to the Environment Agency. At present we cannot agree to any disapplication of permits within our remit. The protected provisions are under discussion with the applicants and we hope that it will be possible to reach an agreement soon.