

Ms Shenaz Choudhary
Department for Transport
Transport Infrastructure Planning Unit
Great Minster House 33 Horseferry Road
London
City of Westminster
SW1P 4DR

Our ref: AC/2025/132557/01-L01
Your ref:

Date: 7 March 2025

Dear Ms Choudhary

**PROPOSED TRANSPORT AND WORKS ACT ORDER FOR CAMBRIDGE SOUTH
EAST TRANSPORT
BABRAHAM TO CAMBRIDGE**

Thank you for the above consultation. We object to the application as submitted on flood risk grounds, detailed in the flood risk section below. Notwithstanding and without prejudice to our objection, we have also made comments on groundwater, biodiversity, fisheries and water resources.

Protective Provisions

Article 3 – disapplication of legislative provisions

Within our remit the applicant is seeking to disapply the requirement for a flood risk activity permit (FRAP) only. However, Article 3(3) states “*in paragraph (2)(a) “Flood risk activity” and “water discharge activity” have the meaning given in the 2016 Regulations*”. There is no disapplication of the requirement for a WDA permit, so this reference to “water discharge activity” in Article 3(3) is an error and we request that it is removed.

Schedule 12, Part 7 – Protective Provisions

Please see attached a set of our standard protective provisions which we would prefer to be used.

Our main concern regarding the protective provisions is the “deemed approval” in paragraph 68(3)(b). A “deemed approval” instead of a “deemed refusal” is unreasonable because it does not reflect the legislative provision that it replaces in lieu of the disapplication, namely paragraph 15 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2016.

Flood Risk

We have reviewed the following documents submitted with this application:

CSET-10-02 Environmental Statement – Section 8
CSET-10-23 Appendix 8.1 Flood Risk Assessment
CSET-10-24 Appendix 8.2 Flood Modelling Report
CSET-11-DO3 Engineering Drawings – Structure 6 and 8

We **object** to the proposed development on the following grounds:

The submitted Flood Risk Assessment (FRA) and associated Flood Modelling Report do not comply with the requirements set out in paragraphs 20 to 21 of the Flood Risk and Coastal Change section of the Planning Practice Guidance (PPG) and its site-specific flood risk assessment checklist. The FRA does not, therefore, adequately assess the flood risks posed by the development. In particular:

- Insufficient information has been provided to allow us to review the hydraulic modelling of the River Granta that has been undertaken to inform the assessment of flood risks to and from the proposed development. We need to review this model to determine whether the outputs are suitable for use in the FRA and to ensure the development will be safe for its lifetime without increasing flood risk elsewhere.
- The FRA fails to demonstrate that adequate floodplain compensation can be provided within the red line boundary to ensure there will be no increase in flood risk elsewhere.

Advice for the Applicant

Model Review Requirements

We are currently unable to undertake a detailed review of the model that has been submitted to us.

The model report should be updated to include a more detailed justification for not updating the hydrology; the relevant paragraph in the report (paragraph 8.2.16) should include the analysis undertaken as part of the study, which we have discussed via email.

Given the difference between the peak flows in the two studies are ~2-3 cumecs, which equates to around a 15% uplift in peak flows, a sensitivity test should be carried out to assess how much difference this makes to the model outputs at the site of interest. A +/- 20% flow sensitivity test is usually asked for as part of flood modelling uncertainty analysis; this could be used to demonstrate the level of uncertainty in the model outputs, including the relevant 1%AEP climate change flood level used in the floodplain compensation calculations.

If there is a higher degree of uncertainty or difference within this sensitivity testing, a significant net gain in floodplain compensation should be provided to address the uncertainty in the impacts from the proposed changes and to ensure there is no increase in flood risk elsewhere.

If a revised model report is submitted that addresses the issues above, we should be able to provide a more detailed review of the model and report.

Further guidance on what information is required for review can be found at [Using modelling for flood risk assessments - GOV.UK](#) under 'What information you need to provide'.

Floodplain Compensation

The FRA states in paragraph 8.1.58 that appropriate mitigation in the form of level-for-level and volume-for-volume compensation will be required. However, no details of proposed floodplain compensation are included in the FRA. Paragraph 8.1.72 states that the details of the floodplain storage compensation areas and reprofiling are subject to detailed design assessment and will require ground investigation.

We consider that an outline floodplain compensation scheme should be provided in the

FRA to demonstrate that adequate land is available within the red line boundary to provide the required floodplain compensation. This information is required to demonstrate that the proposed development passes the second part of the Exception Test – i.e. the development will not increase flood risk elsewhere and, where possible, will reduce flood risk overall.

We note that the Flood Modelling Report indicates that the potential to provide floodplain compensation within the areas shown in Figure A8.2.19 has been assessed. However, we would expect a table to be provided showing the volumes lost to the development and volumes gained by the proposed compensation areas for each 100mm slice up to the 1% AEP flood level, including an appropriate allowance for climate change (the 'design flood level'). This information, as well as figure A8.2.19, should be included in the FRA to demonstrate that adequate mitigation can be provided.

Please note that the 'design flood level' used to calculate the floodplain compensation requirements is based on a model that we have not yet been able to review and it is unclear which climate change allowance has been used for this. It should be clarified which climate change allowance has been used in the floodplain compensation calculations. If the flood level that has been used in the calculations is not considered to be fit for purpose (following our review of the model), the floodplain compensation calculations will need to be revised.

Overcoming our Objection

To overcome our objection, the applicant should provide a revised FRA and model report that address the points highlighted above.

The FRA must demonstrate that the development will be safe for its lifetime and will not increase flood risk elsewhere.

Please note that we will only be able to withdraw our objection if we are satisfied that the model used in the FRA is representative of the flood risk in the area. If our objection can be overcome, we are likely to recommend that a condition is included in any Order granted to ensure that adequate floodplain compensation is provided at the detailed design stage.

Groundwater & Contaminated Land Documents Reviewed

We have reviewed the following reports for this consultation:

- CSET-10-02-00 ES Volume 2 Main Report
- CSET-10-04-00 Appendix 2.1 Drainage Strategy
- CSET-10-08-00 Appendix 2.5 Construction Environment Management Plan
- CSET-10-23-00 Appendix 8.1 FRA
- CSET-10-26-00 Appendix 9.1 Ground Investigation Report
- CSET-10-29-00 Appendix 9.4 Contaminated Land Risk Assessment

Planning Conditions

We support the inclusion of conditions 7 and 8. Piling Risk Assessments should assess piling any other foundation designs and investigation boreholes using penetrative methods.

We request the following wording is added to condition 12 (drainage) as the water environment is potentially vulnerable and there is an increased potential for pollution from inappropriately located and/or designed infiltration Sustainable Drainage Systems

(SuDS).

“No drainage systems for the infiltration of surface water drainage into the ground is permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters.”

Without these conditions, the proposed development on this site poses an unacceptable risk to the environment and we would wish to object to the application. We ask to be consulted on the details submitted for approval to your Authority to discharge these conditions and on any subsequent amendments/alterations.

Technical Comments

Contamination Assessment

We note that an extensive contamination assessment and intrusive investigation has been undertaken along the intended route. The land is understood to largely be comprised of agricultural farmland, though some other potentially contaminative land uses have been identified such as the railways and roads, historic gravel and chalk pits, mining and industrial activities.

It is understood that soil sampling across the site identified only 1 exceedance of the adopted Generic Assessment Criteria (GAC). We are in agreement with the report's conclusion that this isolated exceedance is unlikely to pose a wider contamination risk.

Groundwater and soil leachate sampling onsite have identified both metal and hydrocarbon concentrations in several locations which exceed the Environmental Quality Standards for inland freshwater (EQS) and Drinking Water Standards (DWS). The report concludes that these exceedances do not appear to represent a significant risk to groundwater and recommends that a watching brief be implemented and a piling risk assessment produced in order to protect the sensitive groundwater environment which includes Principal aquifers, Source Protection Zones (SPZs) and watercourses. We are in support of implementing these steps.

Drainage Strategy

We understand that the intended drainage strategy will discharge surface water to ditches and watercourses. Runoff from highways has the potential to be contaminated, we are therefore in support of the inclusion of appropriate pollution prevention measures in the design, including filter strips and drains, swales, attenuation basins and ponds. We would note that the applicant may also wish to consider the inclusion of oil interceptors.

The *FRA* and *Drainage Strategy* highlight that infiltration drainage features are not included within the drainage strategy due to insufficient shallow infiltration rates identified during testing. Given the potential for contaminated runoff from the site, we would be in agreement with this on a groundwater protection basis.

Should the design change to include infiltration then the applicant should provide appropriate details. Soakaways and other infiltration SuDS must comply with statements G1 and G9 to G13 of our [Groundwater Protection Position Statements](#) and should be constructed in line with good practice and guidance documents including the [CIRIA C753](#) SuDS Manual and the [Susdrain website](#). They must not be constructed in contaminated ground where infiltration could re-mobilise contaminants to pollute groundwater. All infiltration SuDS should be designed to maintain a minimum 1.2m clearance above peak seasonal groundwater levels. Only clean roof water can be directly discharged to infiltration SuDs or watercourses.

The reports do mention that infiltration rates higher at depths of 3.3m onwards, and that they may therefore wish to include deep infiltration. It should be noted that we do not consider deep infiltration systems (>2.0m below ground level) to be routinely acceptable, they would only be considered if all the criteria set out in G9 of our [Groundwater Protection Position Statements](#) are met.

Piling

It is understood that piling is intended as part of the works for the Bridges; piling and other penetrative foundation methods have the potential to adversely affect groundwater conditions. This may include pollution, increased turbidity, mobilising contaminants and creating preferential pathways. We recommend that the applicant provide appropriate details of foundation designs prior to the commencement of works.

Further advice for the applicant can be found in Appendix 1 of this letter.

Biodiversity

Documents Reviewed

- CSET-10-02 Environmental Statement/biodiversity section
- 10-35 Appendix 10.5 Otter and Watervole Survey
- 10-39 Appendix 10.9 White Clawed Crayfish Survey
- 10-42 Appendix 10.12 BNG
- 10-42 Appendix 10.13 Scenario Modelling for Rivers BNG
- 10-08 Appendix 2.5 Construction Environment Management Plan
- 10-05 Appendix 2.2 LEMP
- CSET-11-DO3 Engineering Drawings
- 14 Request for Deemed Planning Permission: Conditions

Planning Conditions

We do not object to the planning application subject to the following conditions being applied:

- 10 – Construction Ecological Method Statement
- 11 – Temporary crossing over Granta (habitat restoration).
- 20 – LEMP
- 21 – BNG

We ask to be consulted on any variation or discharge of the above conditions.

Within the CEMP (condition 10) we would expect to see the following addressed:

- Riparian planting adjacent to culverts
 - Where culverts are used it should be ensured that planting of both banks of the ditch/watercourse is properly established on both sides of the culvert. This is because water voles need cover to move along water courses and if the banks are not appropriately vegetated, the culverts may pose a barrier to water vole movement. The use of pre-planted coir rolls or mats will ensure appropriate levels of cover quickly.
- Mammal ledges within culverts - ramps
 - The mammal ledges within box culverts should have ramps down to the ground level on either side to allow wildlife access at varying water levels.

When details are submitted under the protective provisions listed in Schedule 12 Part 7 and/or the discharge of condition 11 we would expect to see the following addressed:

- Proposed temporary bridge crossings

- Proposed temporary bridge crossings will be in place for many months. They should provide access to the river bank on both sides for mammals to pass along, i.e. the abutments should be set back. Otherwise please provide mammal ledges and ramps. This is to reduce the impact on mammal commuting routes along the river corridor and reduce potential mortalities from animals leaving the river corridor as a result of the temporary bridges.

Advice to the applicant

Culvert specifications

There are water voles present at the northern end of the scheme as well as to the south. Otters are known to travel extensively along water networks. Therefore, it is recommended that mammal ledges are used in all culverts within the scheme. This is to facilitate the connectivity of water vole populations that currently exist and to allow expansion of the populations along the water network. Similarly for otters: mammal ledges will provide a safer route along watercourses and retain connectivity which may otherwise be lost.

If mammal ledges are not used in all culverts, please ensure that the culverts adhere to the best practice specifications outlined in the Water vole Mitigation Handbook i.e.:

- Over sized box culverts up to 30-35m length with $\geq 1\text{m}$ headroom above normal water levels;
- Circular culverts of 1200mm diameter, up to 10m length, with $\geq 300\text{mm}$ headroom above normal water levels.

This is to minimise the risk of fragmenting or preventing the spread of the local water vole populations.

Mink trapping contribution

The project could additionally benefit local water vole populations by contributing to a local mink trapping project e.g. linking in with the Water Life Recovery Trust.

Water vole displacements

Additional water vole surveys are required to establish whether sufficient habitat is available for displaced water voles in close proximity to the working area (as per CSET 10 35 00 Appendix 10.5 Otter and Water vole surveys Page 29 Advice (water voles)).

Water vole habitat creation

Creation of new water vole habitat should take place prior to works on the water courses commencing, so that it has time to mature.

Post construction monitoring

Please include post-construction monitoring of water vole populations either side of new culverts to establish whether water voles are moving through culverts. If water voles are not found to be moving through culverts, additional mitigation measures may be required.

Further survey work

Water vole and otter surveys should be updated well in advance of construction starting. This is because water voles are a mobile species and as previous surveys have shown, populations are dynamic and may be found in previously unoccupied habitat. Otters may have established new resting sites or holts since the previous surveys.

Biodiversity Net Gain

Appendix 10.12 (BNG assessment) and 10.13 BNG (scenario modelling for BNG assessment) indicate that 14% BNG is achievable on site for the rivers. It is understood that the option of weir removal is still being investigated, as this would allow a 20% BNG to be achieved. However, if it is not feasible to remove the weir, it may be preferable to achieve 14% BNG on site and purchase the additional 6% of required BNG river units, rather than purchase 20% BNG river units off site so that any benefit is not local.

Fisheries

The river is inhabited by both salmonid and rheophilic coarse species and as such works should take place outside of salmonid and coarse fish spawning times. Disturbance to spawning fish is an offence under the Salmon and Freshwater Fisheries Act.

The river will be susceptible to sediment loading because of the salmonid and rheophilic coarse fish dependence on clean gravels for successful spawning. As such care must be taken to ensure no sediment through run off or ground works enters the channel. Future concerns of pollution on this sensitive river have been minimised through the use of SuDs and other settlement ponds although these will require regular maintenance to ensure they are working effectively at all times.

Water Resources

Catchment Information

The location of this development is in an area of serious water stress (as identified in our report Water stressed areas - final classification (<https://www.gov.uk/government/publications/water-stressed-areas-2021-classification>)).

Any water required as part of the construction and operation and its source needs to be considered. Water availability is dependent on the catchment. Most water related construction activities, including dewatering and dust suppression are licensable activities and as such, early consideration should be given to where the water can be sourced from. New consumptive groundwater licences are not available, and surface water is restricted to high flows only.

Information on water availability can be found in the relevant Abstraction Licencing Strategy (ALS) Cam and Ely Ouse: <https://www.gov.uk/government/publications/cam-and-ely-ouse-abstraction-licensing-strategy>

Abstraction and Protected Rights

Development of the busway should not detrimentally affect local water features (including streams, ponds, lakes, ditches, or drains) and this includes both licenced and unlicenced abstractions. Any disruption to surrounding abstraction licences during and after construction and operation of the busway must be avoided or mitigated.

We note that the proposals are in close proximity to the Ninewells Local Nature Reserve and consideration should be given to any temporary or permanent effects in the construction and operation phases of the development and how these could affect water levels at Ninewells and/or the flow of surface and groundwater to the site.

Abstractor information and impact must be fully understood ahead of any construction and we encourage engagement ahead of any construction phases to establish this. The licences identified must not be affected by the construction and operation of the busway. Any impacts on water quality, drainage, or hydrological flow caused during construction and operation may impact local and downstream licence holders and their

ability to abstract and must be avoided. The impacts of the construction and operation of the Busway on these abstractions should be investigated, and if there are likely to be impacts, derogation agreements will need to be sought in order to support any abstraction licence applications.

Certain private and small water supplies do not require a licence to abstract water; therefore, we do not necessarily hold extensive records of these. The locations of private domestic sources may be held by the local authority on the register required by Regulation 14 Private Water Supplies Regulations 2016.

Construction and Operational Water Supplies

The water used during the construction phase needs to be considered separately to the water to be used during the operational phase of the development. Early consideration should be given to where the water can be sourced from. If sourced from water companies, then engagement is required from to ensure that this supply has been considered in their latest draft or published Water Resource Management Plan (WRMP) 2024, we would expect to see this evidenced. Any assessment should consider where the water supply will be sourced from as various water companies utilise transfer schemes to pipe water from distant catchments. Consequently, additional water supply may not necessarily be abstracted within the catchment and impacts from increased demand may extend beyond the locality of the project.

Cambridge Water Company (CWC) is heavily reliant on the success of demand management measures to maintain supplies until new strategic sustainable supplies can be developed. We support the inclusion of condition 23 and would encourage the developer to go further than the 2 BREEAM credits.

Additionally, CWC will be applying an enhanced assessment of new non-household connection requests from 2025 which means for connection requests above 20 m³ /day and where the primary use is not for domestic purposes (e.g. sanitation, cooking etc), it is likely that the company will be not be able to facilitate connection and supply to these developments until 2032. We advise that the project engages with Cambridge Water to ensure that any required water supply can be supplied.

Licencing Requirements

Activities that may temporarily and/or permanently alter surface and groundwater hydrological regimes (e.g. water course diversion, over-pumping, dewatering, surface and subsurface activities/instillations) should consider whether and if so what type of licences/permits (abstraction, transfer, impoundment, discharge) will be required to facilitate these activities. We would encourage engagement with us well in advance of the construction activities to determine a licencing/permit plan for the various phases of the project. Information on whether a licence is required and the type of licence you may need can be found here: <https://www.gov.uk/guidance/check-if-you-need-a-licence-to-abstract-water>. Note that dewatering may need to demonstrate that it is non-consumptive to the local environment for it to be licenced. Any temporary and/or permanent field drains that affect dewatering of the site need to consider the effect on the hydrological regime and impact on protected rights, including designated nature sites. Where licences/permits are required, an enhanced pre-application should be submitted to allow adequate time for determination.

We hope this information is of assistance. If you have any queries, please do not hesitate to contact us.

Yours sincerely

Cont/d..

Ms Alison Craggs
Sustainable Places Planning Advisor

Direct dial 020 847 45242

Direct e-mail planning.EastAnglia@environment-agency.gov.uk

Appendix 1 – General Advice to Applicant

1. Management of Waste during Development

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on site operations are clear. Excavated materials recovered via a treatment operation can be re-used on-site under the CL:AIRE Definition of Waste: Development Industry Code of Practice subject to certain conditions being met. However, contaminated materials that are / must be disposed of are waste and therefore subject to waste management legislation which includes: Duty of Care Regulations 1991, Hazardous Waste (England and Wales) Regulations 2005, Environmental Permitting (England and Wales) Regulations 2010, The Waste (England and Wales) Regulations 2011. If the total quantity of waste material to be produced at or taken off site is hazardous waste and is 500kg or greater in any 12 month period the developer will need to register with us as a hazardous waste producer.

We recommend that developers:

- Refer to our [Groundwater Protection](#) webpages, which include our [Groundwater Protection Position Statements](#)
- Refer to our [Land Contamination Technical Guidance](#), including our [Land contamination risk management \(LCRM\)](#) guidance, when dealing with land affected by contamination and for the type of information required in order to assess the risks to controlled waters. The Local Authority can advise on management of risks to human health.
- Consider using the [National Quality Mark Scheme for Land Contamination Management](#) which involves the use of competent persons to ensure that land contamination risks are appropriately managed.
- Refer to British Standards BS 5930 [Code of practice for ground investigations](#) and BS 10175 [Investigation of potentially contaminated sites – code of practice](#)
- Refer to our [Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination](#) National Groundwater & Contaminated Land Centre Project NC/99/73. The selected method, including environmental mitigation measures, should be presented in a Foundation Works Risk Assessment Report, guidance on the production of which can be found in Table 3 of [Piling Into Contaminated Sites](#)
- Refer to [Position Statement on the Definition of Waste: Development Industry Code of Practice](#)
- Refer to our [Good Practice for Decommissioning Boreholes and Wells](#)
- Refer to our [Dewatering building sites and other excavations: environmental](#)

[permits](#) guidance when temporary dewatering is proposed.

2. Pollution Prevention

Materials and chemicals likely to cause pollution should be stored in appropriate containers and in accordance with relevant guidance. Any above-ground facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases with impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets should be detailed to discharge into the bund.

Prior to being discharged into any infiltration system, watercourse or surface water sewer, all surface water drainage from areas susceptible to oil contamination should be passed through an oil separator (or equivalent device) with appropriate capacity and performance. Areas susceptible to oil contamination include: lorry parks; car parks with a surface area exceeding 800m² or with 50 or more parking spaces; vehicle maintenance areas; refuelling facilities; roads. Roof water shall not pass through the interceptor/device.

Appropriate procedures, training and equipment should be provided so that environmental pollution from routine operations or incidents on the site can be prevented. The Environmental Permitting Regulations make it an offence to cause or knowingly permit any discharge that will result in pollution of groundwater or surface waters.