River Thames Scheme

Protecting our communities
Securing our economy
Enhancing our Thames

Preliminary Environmental Information Report

Volume 2

Chapter 17: Traffic and Transport

17 Traffic and Transport

17.1 Introduction

17.1.1 Overview

17.1.1.1 This chapter of our Preliminary Environmental Information Report (PEIR) considers the effects from construction and operation of the River Thames Scheme (RTS) ('the project') in relation to traffic and transport. Within this chapter we have included topic specific sections on:

- Legislation, policy and guidance (noting any changes since Environmental Impact Assessment (EIA) scoping);
- Engagement with consultees, including responses to comments received on the RTS EIA Scoping Report;
- The assessment methodology for this topic (again noting any changes or updates since EIA scoping);
- Key environmental considerations and opportunities,
- Primary and tertiary mitigation;
- Our preliminary assessment of effects;
- Secondary mitigation; and
- Future work for this topic of our EIA.

17.1.1.2 For a summary of the key baseline elements associated with traffic and transport see Section 5.13.

17.1.1.3 Our detailed assessment of likely significant effects for the Environmental Statement (ES) will be informed by our ongoing Transport Assessment, for which we have prepared a Transport Assessment Scoping Report (see Appendix 17.1). The study area for the ES will be informed by the Transport Assessment and defined based on where there will be a significant increase in trips associated with the construction and operation of the project. Nevertheless, as the full details of construction related traffic is currently unknown, the extent of the effects that this traffic will have on the functioning of the transport network cannot be calculated at this stage. Therefore, the traffic and transport study area for the preliminary environmental assessment in our PEIR is as per Section 17.2.4 of our RTS EIA Scoping Report (Environment Agency and Surrey County Council, October 2022) ('the EIA Scoping Report'); this being a

600 metre buffer zone from main roads required to reach the Strategic Road Network (main 'A' roads, M3, M4, M25) from:

- Main compound sites;
- Priority areas for habitat creation, enhancement or mitigation; and
- New green open spaces.

17.1.1.4 Our traffic and transport assessment considers:

- The existing baseline conditions during construction and when the site begins operation;
- The effects that construction traffic will have on the local and strategic highway network as a result of the proposed development; and
- The effects from operation of traffic on the local and strategic highway network as a result of the project.

17.1.1.5 Effects on off-road cycle routes, footpaths, equestrian routes and recreational navigation are covered in Chapter 11: Health (in relation to effects on health to users of these resources) and Chapter 15: Socio-economics (in relation to their use as a recreational resource). Effects on air quality and noise and vibration as a result of changes in traffic are considered in Chapters 6 and 14 respectively.

17.2 Legislation, Policy and Guidance

17.2.1.1 A summary of the key legislation, policy and guidance we have used to prepare our PEIR chapter is provided in Appendix M of our EIA Scoping Report. Since the publication of our EIA Scoping Report in October 2022 the National Policy Statement (NPS) for Water Resources Infrastructure (Defra, 2023a) has been finalised and was designated in September 2023. Furthermore, the Institute of Environmental Management and Assessment (IEMA) have published 'Environmental Assessment of Traffic and Movement' (IEMA, 2023) which has replaced 'Guidelines for the Environmental Assessment of Road Traffic' (IEMA, 1993).

17.2.1.2 Changes to the NPS relevant to traffic and transport since the draft version was released in 2018 are:

- The inclusion of a direct reference to the Department of Transport's Transport Analysis Guidance for guidance in relation to modelling and assessing the impact of traffic and transport.
- That the assessment of impacts on traffic and transport "should adopt a vision led approach that seeks to prioritise modal shift to sustainable modes and supports transport as a principal mechanism by which to mitigate the impact of the scheme" (Paragraph 4.14.5 of NPS).
- The requirement for assessments to consider potential disruption to services and infrastructure such as roads, rail and airports.
- Further details of the needs to consult with Nationals Highways, Network Rail and Highway Authorities as appropriate.
- The NPS sets out the expectation for the applicant to prepare a construction management plan for construction stages and a travel plan for the operational stage of the infrastructure.
- The removal of the specific need to consider temporary closure of Public Rights of Way (PRoW), consideration of using rail and water freight and the utility of management plans to mitigate traffic impacts.
- The removal of the assumption that the effects from operation of such infrastructure would be minimal in terms of traffic and transport impacts.

17.2.1.3 The updated IEMA guidance has not significantly altered the proposed assessment methodology stated within our EIA Scoping Report (see Section 17.7) with the majority of the assessment criteria remaining relevant and unchanged. However, where minor adjustments have been recommended from the revised guidance these have been amended within the Assessment Methodology section of this chapter.

17.2.2 Information Sources

17.2.2.1 The sources we have used to inform our PEIR are detailed in our EIA Scoping Report Section 17.2.2. However, as the 2022 Surrey County Council Traffic Model was unavailable, the 2019 model was used instead. Once the 2022 model is available this will be used to inform our ES.

17.3 Engagement

17.3.1 Responses to EIA Scoping

17.3.1.1 Table 17-1 below summarises the comments and responses received on our EIA Scoping Report following formal submission to the Planning Inspectorate (PINS) including the PINS EIA Scoping Opinion (date 15 November 2022) ('the PINS Scoping Opinion') and any key comments received from statutory consultees. Full consultee comments on our EIA Scoping Report and our responses to these comments are provided in Appendix 4.1.

Table 17-1: Responses to comments received on the EIA Scoping Report

Consultee or Organisation	Summary of Comment	Project Response
Planning Inspectorate (PINS)	PINS did not agree that impacts to traffic and transport from vehicle movements transporting hazardous waste and materials can be scoped out; these movements should be considered as part of the construction traffic vehicle movements in the ES assessment.	These movements will be considered as part of the construction traffic vehicle movements in the ES assessment.
PINS	PINS agreed that construction disruption to river boat traffic on the River Thames can be scoped out on the basis that works to the weirs will be phased and temporary in duration, navigation will be maintained throughout construction, and materials movements will be controlled through a Construction Environmental Management Plan (CEMP) to reduce impacts.	A CEMP with appropriate mitigation measures will be developed for the ES.
PINS	Additional large fowl may be attracted to the area increasing risk of bird strike with aircraft associated with Heathrow Airport. PINS agreed to scope this matter out; evidence of agreement with Heathrow should be provided in the ES.	Evidence of agreement with Heathrow will be provided in the ES.

Consultee or Organisation	Summary of Comment	Project Response
PINS	The ES should explain any assumptions made in the assessment about use of rail or river, including a description of the expected number of movements via these routes and the available capacity within the networks for such movements. The ES should include an assessment of the worst-case scenario for construction phase traffic and transport effects.	The ES will include an assessment of the worst-case scenario for construction phase traffic and transport effects. The continued expectation is that justification for using or not using rail/water will need to be prepared.
PINS	The EIA Scoping Report does not make reference to any potential abnormal indivisible loads (AIL). The ES should confirm whether there will be any AILs and where there are, associated impacts should be assessed where significant effects are likely to occur.	The assessment of AILs and the probability of these loads being involved in a collision will be incorporated into the assessment of effects from construction traffic on both the local and strategic road network. Suitable routes of AILs will be identified and agreed with Surrey County Council. The impact of this will be assessed in the ES Chapter.
Local Planning Authority (LPA) Project Group	Given the position of the project route in Spelthorne adjacent in places to the M3, has the option of having a project specific temporary exit into a compound directly from the M3 not been considered in order to take HGVs directly to the worksites?	A series of options is under investigation for limiting the effects of HGV movements on the local road networks, including conveyor systems under the M3 and short-haul water based transport on the River Thames. The construction duration, cost and land take associated with a temporary motorway junction outweigh the benefits in this instance.
LPA Project Group	Will there be upgrades to any of the existing infrastructure that is identified as congested and thereby contributing to poor air quality such as the Sunbury Cross M3 Junction? As the RTS could potentially attract traffic to visit the amenity areas.	Specific mitigation measures cannot yet be determined until further assessment of the effects has taken place. We would expect the need to do some minor works at some junctions where they have existing capacity pressures

Consultee or Organisation	Summary of Comment	Project Response
		on routes for HGVs transporting excavated materials, but expect these to be within the project boundary.
LPA Project Group	These thresholds are different to those required for air quality modelling, can clarification be given as to whether a separate criteria will apply to the traffic data supplied for screening for air quality assessment purposes?	The relevant data required to undertake the air quality assessment are as detailed within Chapter 6. Air quality thresholds are discussed in paragraphs 6.4.3.5 and 6.4.3.11 to 6.4.3.14 of our PEIR with the Traffic and Transport assessment methodology discussed in Section 17.7 of our EIA Scoping Report and Section 17.4 of this chapter.
LPA Project Group	Mitigation from effects causing congestion and delay to public transport operations would be strongly encouraged.	The need for specific mitigation cannot yet be determined until further assessment of the potential effects has taken place. Any effects will need to be assessed and quantified to understand if there is a significant effect that needs to be mitigated.
LPA Project Group	Is an additional broader approach needed in terms of assessing transport severance geographically given this is a channel and there will be impacts on footpaths, bridleways etc and access to local facilities by those modes also.	It is proposed to assess severance as part of the Traffic and Transport chapter of the ES following the assessment methodology outlined. The Transport Assessment will provide additional assessment of the effect (and benefits) of connectivity created by the project.
LPA Project Group	Many of the existing crossings in Spelthorne rely on pedestrians waiting for vehicles to stop to allow them to cross, that will become harder where traffic flows increase, and alternative crossing facilities may be required.	The extent of likely additional traffic to be generated by the project is yet to be determined. Once this has been developed its effect on pedestrian delay can be assessed and mitigation measures provided if required.

Consultee or Organisation	Summary of Comment	Project Response
LPA Project Group	The RTS could generate pinch points where there are an increased number of cyclists and pedestrians at an entrance point encountering an increased volume of traffic for example on or crossing links on routes to car parks, will this be assessed in terms of physical mitigation to give adequate priority to safety of pedestrians /cyclists?	The Transport Assessment will consider worksite access arrangements and safety requirements. Pedestrian and cycle safety will be paramount.
National Highways	It should be noted that it will be important to assess the Strategic Road Network (SRN) junctions as well as routes to reach the SRN, particularly the M3 and M25.	The extent of junction assessment will be determined by the 5% exceedance threshold (which will also provide the extent of impact in absolute numbers). This will consider all junctions, including those on the SRN. M25 J13 and J14 were also subject to additional traffic surveys in May and June 2022 and will therefore be considered, subject to the results of the trip generation and distribution exercise.
National Highways	National Highways require a robust assessment of additional trip generation and mitigation of impacts for SRN junctions and this will be reviewed in light of the trip generation through SRN junctions in terms of absolute numbers, rather than as a percentage change on existing flows.	The trip generation and distribution will inform whether change in flows exceed the 5% threshold. This percentage change will also be provided in absolute numbers to inform whether junction testing at SRN junctions is required.

17.3.2 Other Engagement since EIA Scoping

17.3.2.1 Section 17.2.3 of our EIA Scoping Report summarises the stakeholder engagement relevant to the traffic and transport topic that was undertaken prior to submission of the EIA Scoping Report.

17.3.2.2 Surrey County Council was invited to comment on the methodology proposed for the preparation of the Transport Assessment (see Appendix

17.1 for our Transport Assessment Scoping Report), which will inform the preparation of mitigation. The response received has been considered and will influence the future preparation of the Transport Assessment.

17.3.2.3 In October 2023 we briefed the LPA Project Group on key aspects of our proposed construction works, including our proposed routes for Heavy Goods Vehicle transporting excavated materials and our proposals for off-site car parking to reduce disturbance to the local road network.

17.4 Methodology

17.4.1 Introduction

17.4.1.1 This section should be read in conjunction with Chapter 4 'Approach to the Environmental Assessment' which sets out relevant information on the design parameters and information that have informed our PEIR assessment, and how we have approached various aspects of the assessment including:

- The scope of the assessment;
- The methodology (including the approach to defining the baseline environment, topic study areas, and assessment methodology and criteria);
- The approach to mitigation; and
- The approach to cumulative effects.

17.4.1.2 The assessment methodology for the traffic and transport assessment is presented in Section 17.7 of our EIA Scoping Report and updated below in Section 17.4.2. The assessment methodology has been refined following the PINS EIA Scoping Opinion, and feedback from the National Highways (as noted in Table 17-1) as well as following updates to policy and guidance stated in Section 17.2.

17.4.1.3 For our PEIR, a preliminary assessment has been undertaken as some information on the project is incomplete. Further project details will be established in order to undertake the assessment to be reported in the ES, this includes refined maximum project parameters in relation to (this is not an exhaustive list):

- Construction vehicle movements, for example associated with staff and materials;

- Construction vehicle types and abnormal indivisible loads (AILs);
- Road and PRoW diversions/closures;
- Use of the River Thames for the transportation of material;
- Vehicle movements and car parking associated with the new green open spaces; and
- Vehicle movements associated with operational maintenance.

17.4.2 Construction and Operation Assessment Methodology

17.4.2.1 The methodology for assessing effects from construction and operation on highway network delay, severance, pedestrian and cyclist delay, and accidents and safety is detailed in our EIA Scoping Report in Section 17.7 along with definitions for magnitude of change, sensitivity of receptors and significance of effects. The amendments to the methodology for pedestrian and cyclist amenity (including fear and intimidation), abnormal indivisible loads (AILs) and hazardous loads are detailed in this section and will be applied to the assessment within the ES.

17.4.2.2 Our preliminary assessment for the PEIR has been undertaken using the definitions for magnitude of change, sensitivity of receptors and significance of effects detailed in Section 17.7 of our EIA Scoping Report. As some information on the project is incomplete, a full assessment using the methodology detailed in the EIA Scoping Report as well as use of the additional assessment methods identified in the following sections has not been completed for the PEIR, but will be undertaken for the ES.

Pedestrian and cyclist amenity

17.4.2.3 Following the 2023 update to the IEMA guidance the thresholds for the criteria used to assess pedestrian and cyclist amenity have been amended. The amended criteria are shown in Table 17-2.

Table 17-2: Fear and Intimidation Criteria

Average traffic flows over 18 hr day (vehicles/hour two-way)	18 hour HGV flow	Average Vehicle Speed over 18 hour day	Degree of hazard score
1,800+	+3000	>40	30
1,200 – 1,800	2,000 – 3,000	30 – 40	20

Average traffic flows over 18 hr day (vehicles/hour two-way)	18 hour HGV flow	Average Vehicle Speed over 18 hour day	Degree of hazard score
600 – 1,200	1,000 – 2,000	20 – 30	10
<600	<1,000	<20	0

17.4.2.4 Within the 2023 guidance a weighting system has been defined to help provide an approximation for the likelihood of pedestrian and cyclist fear and intimidation. A degree of hazard score will be applied to each individual criterion and totalled to provide an overall approximation of the level of fear and intimidation following the recommended methodology. This defined 'hazard score' has been included within Table 17-3.

Table 17-3: Levels of Fear and Intimidation

Level of fear and intimidation	Total hazard score
Extreme	71+
Great	41-70
Moderate	21-40
Small	0-20

Abnormal Indivisible Loads

17.4.2.5 Following consultation with PINS, the assessment of abnormal indivisible loads (AILs) associated with the construction of the RTS and the probability of the loads being involved in a collision has been included for movement on both the local road network and the strategic road network. Suitable routes of AILs will be identified and agreed with Surrey County Council. The potential routes of Heavy Good Vehicles (HGV) associated with the transportation of excavated materials (see Figure 17.1) will in most cases be suitable for AILs, however where weight, height or width restrictions apply there may be a need to identify alternative routes. The effect of AILs will be assessed in the ES Chapter.

Hazardous loads

17.4.2.6 Following consultation with PINS, the assessment on the number of hazardous loads associated with the construction of the RTS and the probability of the loads being involved in a collision has been included for movement on both the local road network and the strategic road network. Hazardous loads will be transported to designated sites under licence. This will be reviewed and agreed with stakeholders, upon completion of the Material Management Strategy (MMS). The impact of this will be assessed in the ES Chapter.

17.4.3 Assumptions and Limitations

17.4.3.1 The latest Surrey County Council traffic model data was unavailable to use as baseline information at the time of preparing our PEIR. We will use the latest traffic model to inform our detailed assessment for our ES.

17.4.3.2 Our preliminary environmental assessment for our PEIR is based on the information available at this stage of the project regarding potential routes of Heavy Good Vehicles (HGV) associated with the transportation of excavated materials (see Figure 17.1 and Appendix 17.2). It is possible that potential routes associated with the transportation of excavated material or indeed other construction vehicles will alter as the project develops and any expansion to the study area due to this will be considered as part of the ongoing EIA, design and consultation process.

17.4.3.3 As noted in Section 4.2.4, since EIA Scoping we have been able to confirm that there is sufficient capacity at licenced waste disposal or recovery sites in proximity to the project boundary. Therefore, the previously scoped in effects from the transportation of non-hazardous materials from the major road network and placement off-site is now proposed to be scoped out of the EIA on the basis that transporting non-hazardous materials to these sites would have been assessed and mitigated as part of their permitting processes. For the purposes of the PEIR therefore, assessments have considered the movement of excavated materials off site to the major and strategic road networks only.

17.5 Key Environmental Considerations and Opportunities

17.5.1.1 The key considerations with respect to traffic and transport are:

- Existing transport infrastructure (especially major motorways, Heathrow Airport and railway lines), which are already congested, are sensitive to further increases in traffic volumes, furthermore the local road network is susceptible to changes in traffic volumes and road/lane closures, which can affect journey times and lengths.
- The River Thames is a popular commercial and recreational waterway and is susceptible to changes in river traffic volumes.
- There is an extensive network of PRoWs within the study area which is well used by commuters and recreational users. Disruption in the form of diversions and/or closures can affect journey times and lengths, and cause severance.

17.5.1.2 The key opportunities with respect to traffic and transport are:

- The creation of new active travel corridors and recreation spaces that will increase accessibility for pedestrians and cyclists; and
- The prevention of, or reduction in, flooding key routes, which will prevent disruption to road, rail, airport and river traffic networks.

17.6 Primary and Tertiary Mitigation

17.6.1 Primary Mitigation

17.6.1.1 The following primary mitigation is proposed in relation to traffic and transport effects, further details on these mitigation measures can be found within Chapter 2 Project Description.

- The Sequential Approach to design of flood mitigation means that the proposed project components will be appropriately located based on National Planning Policy Framework (NPPF) flood risk vulnerability classification to minimise negative effects to the transport network from potential increased flood risk during construction;
- Management of the augmented flow will be via in-channel water level control structures and allow the water level in the flood channels to be varied; this will reduce the potential negative effect of reduced water levels within the River Thames which could cause restrict river navigation;

- The use of off-site car parks during construction will reduce the number of staff car trips to the construction sites, thereby reducing potential congestion and delay on the local road network close to construction areas.

17.6.2 Tertiary Mitigation

17.6.2.1 The following tertiary mitigation is proposed in relation to traffic and transport effects assessed within our PEIR.

- The Construction Traffic Management Plan aims to ensure all highways works are safe, planned and co-ordinated (including with other works/projects in the study area) in order to secure the expeditious movement of traffic on the road network; and to minimise inconvenience to the public. This could include measures such as (this is not an exhaustive list):
  - Modifications to parking restrictions or suspensions (amending existing or implementing new);
  - Bus stop suspensions or relocations;
  - Details of off-site lorry holding arrangements (site management); and
  - How stakeholder and community liaison and co-ordination will be managed.
- The application of the waste hierarchy, as discussed further within Chapter 13: Materials and Waste, will reduce the generation of waste and increase the reuse of natural arisings and the treatment of waste to make it suitable for reuse. This will reduce the amount of materials that needs to be transported off site on the local road network.
- The Construction Travel Plan aims to proactively manage and influence workforce (and visitor) travel to and from worksites to limit traffic movement and reduce disruption in the vicinity of the site. This could include measures such as (this is not an exhaustive list):
  - Details of access arrangements to worksites to facilitate convenient and safe access for pedestrians, cyclists and drivers;
  - Provision of current information on the local transport network (pedestrian, cycle, bus, rail) to enable workers and visitors to make informed decisions on their travel behaviour; and
  - Objectives to be set, monitored and reported against to limit and reduce car travel.

- The Construction Logistics Plan will detail the logistics management arrangements for work sites to minimise impacts on communities and the environment from transportation of construction materials/waste. This could include measures such as (this is not an exhaustive list):
  - Details on standard working hours and any requirements to restrict vehicle movements during certain sensitive periods of the day/month/year;
  - Any commitments on construction vehicle routing e.g. any requirements to avoid certain junctions/routes or particular movements; and
  - Co-ordination with local stakeholders (Local Highway Authority and developers) to minimise collective disruption to operation of the highway from construction works.
- The Construction Surface Water Management Plan, construction flood protocol and construction emergency planning will mitigate the effects of temporary increases in flood risk to the local transport network from the construction phase. Details of this are included in Chapter 10: Flood Risk. In particular, the construction flood protocol will plan the sequencing of construction to enable safe flood response management and associated procedures of working in a floodplain to reduce effects on the transport network.
- The Construction PRoW Management Plan will include details of temporary PRoW stopping up and diversion processes, management measures and restoration. This will be implemented to provide suitable diversions for users when PRoWs are affected by construction works.
- A Navigational Risk Assessment will be prepared to identify environmental and safety risks of using the River Thames to transport materials, and will identify measures to mitigate and respond to these risks.
- The Operational Travel Plan aims to proactively manage and influence employee (and visitor) travel to and from facilities being provided at potential new green and blue open spaces, to encourage the use of sustainable travel methods and reduce network disruption locally. This could include measures such as (this is not an exhaustive list):
  - Details of access arrangements, vehicle/electric vehicle/bicycle parking availability and information on the local transport network

(pedestrian, cycle, bus, rail) to enable employees and visitors to make informed decisions on their travel behaviour;
- Provision of secure and convenient cycle storage and facilities such as changing facilities and lockers; and
- Objectives to be set, monitored and reported against to limit and reduce car travel.

17.7 Preliminary Assessment of Likely Significant Effects

17.7.1 Introduction

17.7.1.1 Our PEIR adopts a precautionary approach. Assessments reported within this chapter are a preliminary assessment of potential likely significant environmental effects based on the design parameters set out in Chapter 2. This precautionary approach has been taken for the PEIR as there is some information on the project that is currently incomplete and the parameters within Chapter 2 are high level and account for a range of uses and allowance for design development within a boundary that could possibly be refined once this work has been completed. For example, some designs, construction and mitigation details (and therefore also land requirements) or baseline information is still required from further surveys, assessments and/or consultation feedback.

17.7.1.2 In making a determination of likely significant effects, we have considered the sensitivity of receptors (a receptor being a feature of the environment that responds to change) and the potential magnitude (i.e. size) of change caused by the RTS. The methodology for defining sensitivity and magnitude varies by topic and are defined in the topic sections of our EIA Scoping Report and in Section 17.4 of this chapter.

17.7.1.3 We are committed to including mitigation measures as necessary to address likely significant negative environmental effects as far as reasonably practicable. Both primary and tertiary mitigation are considered to form part of the RTS; those applicable to this topic are set out in Section 17.6. Several of these mitigation measures are still being developed, and therefore as a precaution, the preliminary assessment of effects for our PEIR does not assume full achievement of these in considering if a project effect is likely to be significant (Appendix 4.2 identifies the implementation status of primary and tertiary mitigation for the PEIR assessment). Furthermore, the potential likely significant effects

reported within our PEIR have been assessed prior to the implementation of secondary mitigation measures, those applicable to this topic are set out in Section 17.7.5. These secondary mitigation measures are the subject of further development; and given they are still being developed, are not able to be applied to develop a 'residual' effects assessment.

17.7.1.4 Our PEIR is based on the latest design and construction parameters and baseline information. As such the findings of the preliminary environmental appraisal presented within our PEIR may be subject to change as the design progresses, as mitigation is further developed or information from further studies becomes available, such as our work to develop a Traffic Management Plan for construction, identify PRoW requiring temporary or permanent diversions or closures, and develop Construction and Operational Travel Plans. The final assessment of effects undertaken as part of the EIA and reported within the ES will be based on the latest information available at that time.

17.7.2 Potential Likely Significant Effects

17.7.2.1 Our preliminary assessment of likely significant environmental effects has identified the potential for the following likely significant negative effects from construction on traffic and transport:

- Temporary negative effects from increased highway traffic congestion, delay and severance, pedestrian, cyclist and equestrian delay, pedestrian and cyclist amenity and accidents and safety, particularly on potential HGV route G (which runs north along Staines Road and Chertsey Lane (A320)), potential HGV route K (which runs east along Renfree Way (B375) and then north along the A244 and west along A308 and A30) and potential HGV route N (which runs west along the B375) due to the influx of site personnel and vehicles transporting material and equipment (see Figure 17.1 and Appendix 17.2 for the potential routes of HGVs associated with transporting excavated material).
- Temporary negative effect of delays to river navigation from using the River Thames to transport materials via barge, including the use of navigation traffic route M (which runs along the River Thames between Desborough Island and Sunbury Depot) for material movements associated with the bed lowering downstream of

Desborough Cut plus other possible movements of materials to and from temporary wharves.

- Temporary negative effect from highway network delay and pedestrian and cyclist delay on certain roads from the construction of new road bridges.
- Temporary negative effect of pedestrian, equestrian and cyclist delay due to PRoW closures and diversions due to the presence of construction working areas.
- Temporary increase in flood risk to local and regionally important roads and rail infrastructure from construction due to temporary changes to land levels and drainage patterns from the use of materials processing and stockpiling sites and temporary changes in hard-standing.

17.7.2.2 Our preliminary assessment of likely significant environmental effects has identified the potential for the following likely significant negative effects from operation in relation to traffic and transport:

- Permanent negative effect on traffic movements on roads, public transport services and existing parking facilities due to changes in areas of public access associated with the creation of potential new green and blue open spaces and the operational traffic they will generate. This may lead to a permanent increase to highway network delay, severance, pedestrian and cycle delay and amenity on certain roads.

17.7.2.3 Our preliminary assessment of likely significant environmental effects has identified the potential for the following likely significant positive effects from operation in relation to traffic and transport:

- Permanent positive effect on traffic movements on roads, public transport services and existing parking facilities from the use of additional active travel connections and an enhanced PRoW network.
- Permanent reduced disturbance (delay) to use of local and regionally important roads, and rail during times of flood.

17.7.2.4 Further details of the potential likely significant effects from construction and operation in relation to traffic and transport can be found in Table 1 and 2 in Appendix 17.3.

17.7.3 Potential Likely Non-Significant Effects

17.7.3.1 Further details of the likely non-significant effects from construction and operation with respect to receptors, project components and project activities, on traffic and transport can be found in Table 3 and 4 in Appendix 17.3.

17.7.3.2 Some examples of likely non-significant traffic and transport effects include (this is not an exhaustive list):

- Temporary negative effects from increased highway network delay, severance, pedestrian, cyclist and equestrian delay, pedestrian and cyclist amenity and accidents and safety on potential HGV route F (which runs north along Chertsey Lane (A320) and The Causeway (A308) before joining the M25 via the A30), potential HGV route H (which runs along Chertsey Road (B375)), potential HGV route I (which runs west along Littleton Lane), Route J (which runs along Thames Side before turning onto Chertsey Bridge Road (B375)) and potential HGV route L (which runs along Thames Side) due to the influx of site personnel and vehicles transporting material and equipment (see Figure 17.1 and Appendix 17.2 for the potential routes of HGVs associated with transporting excavated material).
- Permanent negative effects on the quantity of water within the River Thames leading to changes in water levels and sediment processes and negative effects to river navigation.

17.7.4 In-Combination Climate Impact

17.7.4.1 Consideration of ‘In-Combination Climate Impact’ (ICCI) has been undertaken. The preliminary environmental assessment has considered a future climate scenario and has identified certain potential likely significant environmental effects for this topic which may be exacerbated further by predicted climate change. Further consideration of ICCI will be included in the ES.

17.7.5 Secondary Mitigation

17.7.5.1 As noted in paragraph 17.7.1.3, primary and tertiary mitigation are still being developed, and therefore as a precaution, the preliminary assessment of effects for our PEIR does not assume full achievement of these in considering if a project effect is likely to be significant.

Furthermore, the potential likely significant effects reported within our PEIR have been assessed without the implementation of secondary mitigation measures. For the majority of the identified likely significant environmental effects it is considered likely that the primary and tertiary mitigation will be sufficient at ES stage such that no secondary mitigation will be required. Where secondary mitigation is already under consideration for potential significant environmental effects, this is detailed below.

17.7.5.2 Highway and junction improvements are being considered as secondary mitigation to further reduce the magnitude of the likely significant effect on roads, public transport services and existing parking facilities from vehicles accessing potential new green and blue open spaces. These improvements are subject to further consideration and design following the preparation of the Transport Assessment. The potential junction and highway improvements will be identified within the Transport Assessment and could include the following measures but it should be noted that this is not an exhaustive list:

- Improving/widening of junctions including worksite access points;
- Carriageway widening;
- Provide/improve pedestrian crossings;
- Improve/optimise signalised junctions;
- Pedestrian and cycleway enhancements;
- Parking/loading restrictions;
- Traffic calming features;
- Speed limit alterations;
- Public transport and bus stop improvements;
- Highway lighting improvements;
- Signing and road marking improvements.

17.7.5.3 Further details of the secondary mitigation that we are considering for potential likely significant effects in relation to traffic and transport can be found in Table 1 and 2 in Appendix 17.3.

17.8 Further Work for the EIA

17.8.1.1 For the ES, we will undertake a detailed assessment of the effects from construction and operation of the project on traffic and transport, in accordance with the methodology set out within Section 17.7 of our EIA

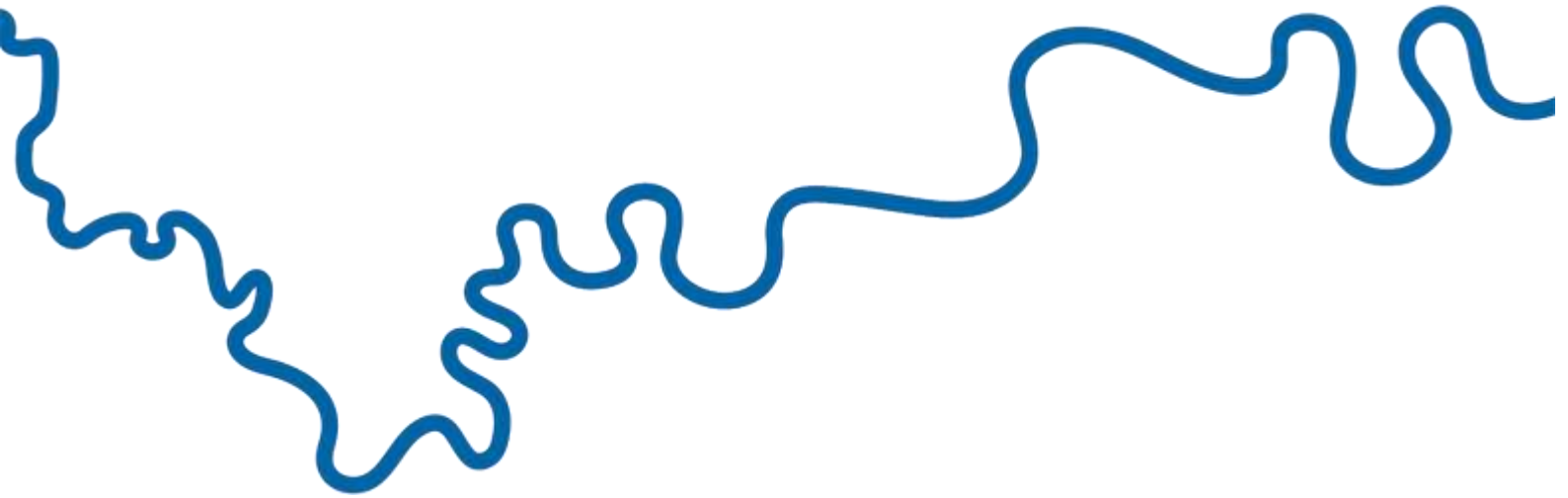
Scoping Report and the additional methodology detailed within Section 17.4 of this chapter.

17.8.1.2 Our detailed assessment will account for relevant aspects of the PINS EIA Scoping Opinion and be informed by additional baseline information from:

- A Transport Assessment (see Appendix 17.1 for the Transport Assessment Scoping Report);
- Surrey County Council's Strategic Modelling traffic data;
- Surveys to be undertaken at proxy sites to inform our understanding of the possible trip generation as a result of the new green open spaces;
- Surveys to be undertaken of existing river navigation on the River Thames;
- A Navigational Risk Assessment; and
- Further information we receive about the existing transport network from stakeholders as part of the statutory consultation and ongoing engagement.

17.8.1.3 Our detailed assessment in the ES will state the predicted significance of effects, provide further detail of relevant mitigation and document the subsequent residual effects.

17.8.1.4 We consider that the further development of the project design and mitigation measures which will be reflected in the ES and DCO application, will enable a reduction in the scale of identified negative likely significant effects set out in this chapter.



The River Thames Scheme represents a new landscape-based approach to creating healthier, more resilient and more sustainable communities by reducing the risk of flooding and creating high quality natural environments.

River Thames
Scheme