



November 2, 2022

**Dear Emily Park (Planning Inspectorate)**

**Reference: River Thames Scheme**

**PINS REF NO:** WA020001 (River Thames Scheme)

**DESCRIPTION:** Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 - Scoping Opinion Consultation

**PROPOSAL:** Application by Surrey County Council and Environment Agency for an Order granting Development Consent for the River Thames Scheme

I write in response to the statutory consultation received by Surrey County Council, Elmbridge District Council, Runnymede District Council and Spelthorne District Council (hereafter referred to as the Project Group) on 5th October 2022 in relation to the Environmental Impact Assessment (EIA) Scoping Report concerning the above development proposal.

The development is classed as a Project of National Significance, a Section 35 Direction was given by the Secretary of State (SoS) on 24 December 2020 and confirms that the project is nationally significant, and it should be treated as development for which development consent is required.

This letter (and Annex A) therefore constitutes the Project Groups' response to the River Thames Scheme EIA Scoping Report (2022) (hereafter referred to as the EIA Scoping Report) consultation issued by the Planning Inspectorate.

It should be noted that there is a clear separation of responsibilities and an information barrier in place between the officers performing a regulatory function within Surrey County Council and those advising and promoting the River Thames Scheme on behalf of the Applicant. Stantec will be supporting officers of The Project Group in performing Host Authority duties, as part of the Planning Act 2008 under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

If you have any queries, please do not hesitate to contact us. For any new consultations, or to provide further information on this consultation please send your correspondence to [claire.sorrin@stantec.com](mailto:claire.sorrin@stantec.com)

Kind Regards,

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Victoria Gibson (Runnymede Borough Council - Development Manager Runnymede Borough Council)



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Esmé Spinks (Spelthorne Borough Council - Planning Development Manager)



# 1 Annex A - Scoping Opinion Response

## 1.1 Legislation

- 1.1.1 The project will be subject to an Environmental Impact Assessment (EIA), and the environmental effects reported within an Environmental Statement (ES). The proposed project meets the criteria of Schedule 2 paragraph 10 (h) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), being an “inland-waterway construction not included in Schedule 1 of these Regulations, canalisation and flood-relief works”.
- 1.1.2 The Project Group agree with the Applicant (Surrey County Council and the Environment Agency) that in relation to Schedule 3 of the EIA Regulations there is the potential for significant environmental effects based on the characteristics of the development, the location of the development and the type and characteristics of potential impact and an ES should be produced and submitted with a Development Consent Order (DCO) application,
- 1.1.3 Under Section 5(1) of the Planning Act 2008 (PA08), National Policy Statements (NPS) are designated by the Secretary of State (SoS) which set out national policy in relation to one or more specified descriptions of development (Section 5(1)) and the application would be decided under Section 104. However, there is no applicable NPS for the River Thames Scheme, therefore the application will be decided under Section 105 of the PA08. Despite this, parts of the draft NPS (dNPS) for Water Resources Infrastructure published in November 2018 and updated in August 2019 may be important and relevant to the SoS’s consideration of the project for the purposes of Section 105(2)(c) as it is considered that water resources projects are the closest projects in form to the RTS that are covered by a NPS. Notably elements of Section 3 on ‘Assessment Principles’ and Section 4 on ‘Generic Impacts’ are particularly relevant to the River Thames Scheme (RTS).
- 1.1.4 The Project Group agree with the policies relevant for the dNPS set out in Appendix M of the EIA Scoping Report.
- 1.1.5 Other matters that the SoS will consider include relevant national and local planning policy. The National Planning Policy Framework (NPPF) (MHCLG, 2021a) is relevant national policy. The NPPF sets out the UK government’s planning policies for England and how these ought to be applied. The NPPF must be considered in the preparation of local and neighbourhood plans and is a material consideration in granting development consent. At the heart of the NPPF is a presumption in favour of sustainable development. The framework sets out guidance under thirteen subheadings that contribute to delivering sustainable development, as follows:
- Y Delivering a sufficient supply of homes;
  - Y Building a strong, competitive economy;
  - Y Ensuring the vitality of town centres;
  - Y Promoting healthy and safe communities;

- Y Promoting sustainable transport;
- Y Supporting high quality communications;
- Y Making effective use of land;
- Y Achieving well-designed places;
- Y Protecting Green Belt land;
- Y Meeting the challenge of climate change, flooding and coastal change;
- Y Conserving and enhancing the natural environment;
- Y Conserving and enhancing the historic environment; and
- Y Facilitating the sustainable use of minerals

1.1.6 The Project Group agree with the extensive list of policies relevant to the RTS set out in Appendix M of the EIA Scoping Report.

## **1.2 Structure of ES**

1.2.1 The Project Group broadly agrees with the structure of the ES. However, at Paragraph 22.3.1.4 of the EIA Scoping Report, an indicative outline structure of the technical topic chapters is provided. The structure of the technical chapters should be revised. To understand the summary and the likely impact of a receptor, mitigation should be considered prior (embedded mitigation) and after the 'Assessment of Effects', which will determine the Residual Impact, which should also be included in the structure of the technical chapters. As cumulative effects should be included within the structure of each technical topic. Suggested format below:

- Y Introduction;
- Y Legislation and Policy;
- Y Consultation and Engagement;
- Y Assessment Methodology;
- Y Existing and Future Baseline;
- Y Key Environmental Considerations and Opportunities;

- Y Assessment of Effects;
- Y Cumulative and in combination effects
- Y Mitigation and Management
- Y Residual impacts
- Y Summary of Significance

### 1.3 Non-technical summary

Page	Reference	Comment
General		
Scoping Non-Technical Summary	iii RTS Vision	The increase in the number and size of flood events due to climate change is a concern to SBC. Future flood events will be expected to have increasingly severe environmental and health impacts if no intervention is made regarding flooding.
	v Existing Environmental Conditions	<p>Shepperton is missing from the settlements list.</p> <p>Land uses paragraph at bottom of pg. v infers that landfills are raised, this is not the case, fill has taken place around the lakes left by mineral workings and there will be fill below ground level.</p> <p>There is a location to the northeast of the lake identified in Figure 4-1 Sheet 2 as Littleton North where Middlesex County Council Committee records indicate that experimental tipping of household waste to a wet pit/lagoon may have taken place in the early 1960s.</p>

### 1.4 Project Description and Alternative Options Considered

Page	Reference	Comment
General		
22	4.1.2.2	Will the maintained water level in the channel for purposes of preventing fish death for example after a flood event, be the only means of control to prevent fish death or will oxygen level monitoring and if necessary, aeration of the channel be considered during adverse conditions? This query is raised as fish

		death can lead to foul odour, pest issues and if carcasses are left without clearance, they can become a potential public health concern particularly during hot weather.
26	4.1.2.14	Reference is made to potential re shaping of smaller lakes and to shallowing of the existing lake banks to reduce their gradients. Reference is also made to the redistribution of silts due to the operation of the RTS. What testing regime will be applied to these materials bearing in mind the flow regime may have carried contaminants from nearby landfill which could be present in silts? Will this be assessed in the source-receptor-pathway models for soils and water? There may be public access to the reshaped lake margin, for example for angling.
26	4.1.2.16	Information is given regarding the Abbey Meads Floodway, however no corresponding information is given for the Brett Aggregates land/lake on the opposite bank which is a lake that is part of the RTS and has culverts beneath the M3 through to the former Lavenders pit area referred to as Littleton South on Figure 4-1 Sheet 2.
33	4.1.4.2	Regarding bed lowering within the Thames and excavations along the channel route in an area with high ground water levels. What will happen to the waste silt and dredging arisings? Will there be any onsite dewatering on land and if so what methods of odour and silt control/mitigation will be applied for example sludge de-watering bags/membranes? The Project Group expect such measures to be secured within a Construction Environmental Management Plan (or similar).
37	4.1.5.7	The use of excavated arisings on site for constructions/ landscaping where materials is chemically and geotechnically suitable, and in accordance with the MMPs and necessary permits, is welcomed by the Project Group. Where will the geochemical parameters that are considered suitable for use be published/ secured?
45	4.2.4.1	There will be extensive re-use of site won soils – what testing will be applied to soils for which end use? Will placed soils (including any imported soils), be tested and at what frequency? How will the testing be secured?
40	4.1.9 – Environmental Mitigation	The Project Group welcomes the Applicant's commitment to embedding the Waste Hierarchy within the design of the RTS development (to minimise waste and maximise reuse) as one way of mitigating the environmental impacts of the development (paragraph 4.1.9.1). The MWPA agrees that sustainable waste management will save resources and reduce traffic and vehicle emissions which will in turn have wider economic and environmental benefits.
45	4.2.4 – Materials Management	Paragraph 4.2.4.2 of the scoping report sets out that (where possible) excavated material will be stored at materials processing sites within the DCO application project boundary and then re-used for features identified as part of the landscape and green infrastructure works. The Minerals and Waste Planning Authority (MWPA) would advise that excavated material used elsewhere as part of the RTS development should be fit for purpose, suitable and limited to the minimum volume requisite.  At paragraph 4.2.4.4 the scoping report explains that the applicant is in the process of determining the possible use of sites outside of the project boundary for EIA scoping for placement of non-hazardous material. The MWPA would welcome clarification as to what is meant by 'placement' in this context. The

		applicant should be aware that the deposit of waste on land is a material change of use of that land and that a material change of use of land requires the benefit of planning permission. Consequently, the applicant should ensure that any sites outside of the development boundary and used for the purposes of 'placing' waste benefit from a lawful use or express consent for the temporary or permanent storage of waste. The MWPA will be pleased to work with the applicant to ensure that any sites identified are suitable in this regard.
45	4.2.4.3	How will measures to prevent the cross contamination of soils be secured where potentially contaminated site won soils are stored, but may not be classed as hazardous waste?
45	4.2.5	<p>The Project Group would request that Environmental Health at the Host Authorities are consulted regarding the haul routes in order to provide information regarding areas that are sensitive in terms of air quality and noise.</p> <p>Has the alternative of routing traffic directly to the scheme construction areas via a dedicated entry/exit point from the M3 motorway in Spelthorne been considered/scoped? This would prevent some of the HGVs from contributing to poor air quality at the Sunbury Cross junction, on the Upper Halliford Bypass and along the A308. Given the scheme is so close to the M3 motorway at Shepperton and the long duration of the construction program a temporary works area with access to the motorway would allow HGVs to route directly to the scheme and then along the scheme route reducing traffic on local roads which would reduce cumulative impacts on congestion, air quality and noise. motorway.</p> <p>Areas of poor air quality in Spelthorne are strongly associated with the strategic road network and the junctions used to access that network therefore the strategy of using main thoroughfares and arterial roads to focus traffic on A roads alone will not be as effective as direct routing from the M3 to the scheme during the construction phase.</p>
47	4.2.9	<p>For noise and construction dust purposes as well as safety regarding storage of materials the compounds should not be located adjacent to residential properties, and consideration of the wind direction from which the strongest wind speeds arise and also the predominant wind direction should be given when selecting the locations. This information can be determined from Heathrow Airport meteorological data.</p> <p>Note that the use of Heras fencing with debris netting is discouraged by the Project Group as this fencing is not sufficient to prevent dust migration from storage areas and construction compounds. A solid boundary fence/site hoarding is more effective at preventing dust migration.</p> <p>The Applicant should consider the following best practice guidance:</p> <p style="padding-left: 40px;">IAQM Air Quality Monitoring in the Vicinity of Demolition and Construction Sites. IAQM &amp; EPUK Guidance on land-use planning and development control: Planning for air quality. IAQM Assessment of dust from demolition and construction 2014.</p>

48	4.3.1	<p>Has the scenario whereby surrounding land could become flooded and overtop into the channel been considered? Or will this be prevented by the design &amp; elevations. SBC raise this as the effectiveness of the sheet piling in preventing water in the channel being contaminated by soils from the surrounding land may be compromised in that scenario.</p> <p>Will there be an assessment of whether there is any increased risk of flooding to the landfills that are currently further back from the Thames, for example on Littleton Lane?</p>
51	4.3.2.9	<p>Will the annual Public Safety Risk Assessment (PSRA) review consider water chemistry, the potential for the presence of microorganisms for example blue green algae regarding areas where the public can access the water's edge and the quality of drinking water at abstraction points/supplies?</p> <p>The Project Group's Environmental Health Team's should be consulted on the PSRA.</p>
60	4.5.3.19	<p>It is noted that the route presented does not include the Littleton South Lake or Old Littleton Lane Lake, although the Littleton South Lake is linked by culvert to the Littleton North Lake. Will the impact of the scheme on the Littleton South Lake and Old Littleton Lane Lake be assessed in terms of soils, flood risk and water environment?</p>

## 1.5 Approach to EIA

Page	Reference	Comment
General		
64	5.2.1.3	<p><i>"The EIA Scoping Opinion will further inform the data gathering and survey requirements to inform the detailed assessment that will be presented within the ES."</i></p> <p>As well as the EIA Scoping Opinion, data gathering and survey requirement should also be confirmed through further engagement and consultation with the Host Authorities and other statutory bodies to support the detailed assessment of the EIA.</p>
67	5.4.1	<p>Additional guidance to consider:</p> <p>The Institute of Environmental Management &amp; Assessment (IEMA) proportionate EIA strategy and best practice (e.g. Delivering Proportionate EIA (IEMA, 2017) and the EIA Guide to Delivering Quality Development (IEMA,2016))</p>
68	5.4.3.1 (third bullet)	<p><i>"Tertiary (best practice): Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or</i></p>

		<p><i>actions that are considered to be standard or best practices used to manage commonly occurring environmental effects.”</i></p> <p>Best Practice could be defined as the requirement for a Construction Environmental Management Plan (CEMP) or a Code of Construction Plan (CoCP). A CEMP and/or a CoCP should be defined as Primary (embedded mitigation) or Secondary (additional) mitigation. Tertiary mitigation is defined as standard sectoral practices like the Considerate Contractors Practices and would not be assessed as part of the EIA. IEMA’s Environmental Impact Assessment Guide to: Delivering Quality Development (2016)</p>
69	5.4.3.4	<p>A CEMP would not be considered as Tertiary mitigation. In accordance with IEMA’s Environmental Impact Assessment Guide to: Delivering Quality Development (2016) (statement on tertiary mitigation):</p> <p><i>“It is helpful, but not strictly necessary, to include tertiary mitigation related to construction activities, within a draft Construction Environmental Management Plan (CEMP) (or similar) included in the ES, to ensure that these actions are highlighted to the principal contractor.”</i> Such as</p> <ul style="list-style-type: none"> <li>- <i>“Applying emission controls to an industrial stack to meet the requirements of the Industrial Emissions Directive (Directive 2010/75/EU). •</i></li> <li>- <i>Considerate contractors’ practices that manage activities which have potential nuisance effects)”</i></li> </ul> <p>Standard sectoral practices that could be included in a CEMP are considered tertiary mitigation, not the CEMP itself.</p>
69	5.4.3.5	<p><i>“Primary and tertiary mitigation are considered to form part of the RTS, and therefore have been considered when determining if a project effect is likely to be significant”</i></p> <p>As part of the EIA, Primary and Secondary mitigation should be considered within the assessment, not Tertiary (see above for explanation). IEMA’s Environmental Impact Assessment Guide to: Delivering Quality Development (2016)</p>
70	5.4.3.6	<p>The examples given in the bullet point list for typically expected management plans secured through the DCO as a Requirement are a mixture of Secondary and Tertiary mitigation. This is confusing to the reader, Tertiary mitigation such as Handling of soils in accordance with good construction practice and relevant guidance (such as BS3882) would not be secured via a DCO Requirement as is industry best practice.</p>
	Summary	<p>Mitigation section – This section is generally confusing due to the incorrect use of terminology.</p> <p>As stated in IEMA’s Environmental Impact Assessment Guide to: Delivering Quality Development (2016)) - A key principle of secondary mitigation is “Best managed through an environmental management plan.”</p>



## 1.6 Air Quality

Page	Reference	Comment
General		
	General	The Project Group are concerned that construction HGVs travelling through the strategic road junctions has the potential to further impact poor air quality in the area and also cumulative impacts with other construction works and mineral extraction/landfill traffic locally. A direct access/egress from the M3 to a scheme compound would be beneficial, if possible, to reduce impacts at the strategic road junctions, where there are nearby sensitive receptors (for noise and air quality).
Data/survey		
79	6.2.1.9	In accordance with IAQM 2014 guidance for a scheme of this size, appropriate dust / PM monitoring would be required where there is a risk of dust impacts during the construction phase. It is recommended that monitoring is undertaken at least 3 months prior to construction in order to obtain a baseline for comparison. The monitoring methodology should take into account IAQM 'Guidance on Monitoring in the Vicinity of Demolition and Construction Sites' (2018).
81	6.2.2.8	If the qualitative odour assessment indicates that moderate or substantial adverse impacts on receptor locations are likely, dispersion modelling of odour impacts would be expected.
Scoping area / area of assessment		
84, 85 and 86	6.2.3.3, 6.2.3.9 and 6.2.3.12	Houseboats should be included as relevant human receptor locations when assessing construction dust, as well as construction and operational odour and road traffic impacts.
87	6.2.3.16	Roads where the RTS results in a reduction in traffic should be included within the assessment if they are within 200m of a receptor which has been included due to an increase in traffic on any adjacent roads.
87	6.2.3.18	It is agreed that the screening criteria referenced in the EPUK – IAQM guidance should be used to determine the study area.
87	6.2.3.19	In addition to European designated sites, Sites of Special Scientific Interests (SSSI), National Nature Reserves, Local Nature Reserves, Ancient Woodland and Local Wildlife Sites should also be considered in the assessment of air quality impacts on ecological receptors, in accordance with the IAQM's 'A guide to the assessment of air quality impacts on designated nature conservation sites' (2020).
Approach to Mitigation		
96	6.6.2	Best practice measures in relation to Non-Road Mobile Machinery (NRMM) should be taken into account such as:

		<p>Committing to ensuring that equipment is maintained in accordance with the manufacturer's instructions and requirements particularly regarding the use of filters to ensure emissions of air pollutants are minimised.</p> <p>Where practicable, low emission NRMM or a recent Euro engine specification should be sourced to ensure emissions are minimised.</p>
96	6.6.2.2	If contractors are being housed in local hotels and accommodation would there be an opportunity to provide low emissions minibus transport to site where hotels are situated beyond walking/cycling distance. Alternatively, accommodation could be selected near to public transport routes.
97	6.6.2.7	<p>As previously mentioned, the dust and air quality management plan should cover adequate boundary dust monitoring where there are receptors downwind of a compound or areas of excavation. The plan should cover mitigation measures during prolonged dry weather, such as during the summer months, when dust control is most challenging.</p> <p>Suitable wheel wash facilities should also be specified to reduce trackout of dust onto the highway.</p>
97	6.6.2.8	Securing a communications plan for subjects like odour, dust and spills would be advised so that there is a well-defined communications channel between the site and the community, and the site and the local authorities.
<b>Assessment Methodology</b>		
94	6.4.1	Whilst impacts from river transport emissions resulting from the RTS, such as those associated with construction material movement by use of barge, particularly during capacity improvement construction works, are unlikely to be significant, further detail should be provided in the Air Quality Chapter of ES on the number of river transport movements predicted as a result of the RTS and the class of vehicles to be used.
95	6.4.2.1	Air quality impacts on future users of green open space proposed as part of the RTS and any Habitat Creation Areas as part of the proposed plans, particularly in proximity to the M3, should be considered.
98	6.7.1.1	The IAQM 2014 guidance is accepted as appropriate as a basis for the construction dust assessment. However, should excavation and / or processing exceed 200,000 tonnes per annum (tpa), the IAQM 2016 'Guidance on the Assessment of Minerals Dust Impacts' would be more suitable.
100 / 103	6.7.1.21 / 6.7.2.2	<p>Further consultation should be undertaken with the Project Group once the traffic data forecast years and model study area are known in order to agree monitoring sites to be used for model verification, sensitive receptor locations, emission factor and background data years to be used in the assessment.</p> <p>As peak hour congestion is likely to be present in the model study area, a diurnal profile to account for changes in traffic flow weighting throughout the day will be important for producing realistic predictions and should be included in the dispersion model.</p>
101 / 103	6.7.1.23 / 6.7.2.3	The traffic data scenarios should be defined in the Air Quality ES chapter. It is considered that 2019 is accepted as being a suitable year for model verification, and adjustment purposes.

101	6.7.1.25	The latest version of the Defra emission factor toolkit at the time of the assessment should be used. Traffic congestion should be taken into account in the dispersion modelling, particularly a reduction of speeds on the approach to junctions.
101	6.7.1.26	Heathrow Airport meteorological data is considered to be suitable for use in the assessment.
101	6.7.1.27	Multi-zonal verification factors may be required to improve model performance rather than one single factor being calculated across the entire model area.
102	6.7.1.31	The EIA Scoping Report indicates that the PM <sub>2.5</sub> limit value of 20 µg/m <sup>3</sup> will be used for comparison against predicted concentrations at human receptors. Given Elmbridge Borough Council's and the Mayor of London's target to achieve annual mean PM <sub>2.5</sub> concentrations of less than 10 µg/m <sup>3</sup> across their administrative areas by 2030, an annual mean of 10 µg/m <sup>3</sup> should be used when assessing impacts on PM <sub>2.5</sub> concentrations at human receptor locations.
102	6.7.1.32	Acid deposition and concentrations of ammonia resulting from road traffic emissions and their contribution to nitrogen deposition should also be considered in relation to impacts on ecological receptors.

## 1.7 Biodiversity

Page	Reference	Comment
General		
		As mentioned in the Scoping Report, the project presents an opportunity to deliver net gains in biodiversity. It is advised that the Applicant differentiates clearly in the ES between design elements/mitigation required to mitigate significant effects to biodiversity receptors, and those required to deliver net gains in biodiversity.
Data/survey		
112	7.3.1.34	The ES should clearly state where species are listed Species of Principal Importance in England.
117-118	7.3.1.9	When discussing species which habitats support, the ES should include reference to relevant sections rather than stating further detail is provided below.
123	7.3.1.38	There are a few inconsistencies with the use of scientific names and common names. Some sections only reference common names others have both scientific names and common names. The ES should provide a standardised approach.
124	7.3.1.41	Within the ES, the desk study findings should be drawn out and some commentary on whether these were confirmed in the field. Or include number identified through desk study and then in subsequent field surveys
124	7.3.1.42	Reference to top mouth gudgeon but no other invasive non-native species (INNS) fish such as zander. The ES should confirm if other fish INNS were recorded or are absent.

125	7.3.2	The Future Baseline used to inform the ES should take into account changes brought about through climate change.
Scoping area / area of assessment		
115	7.2.3.2	The study area for habitats and flora currently includes the area within the project boundary. It is recommended that this is extended to include all habitats which may be subject to effects from the Project, including those outside the boundary.
128	7.4.1	The ES should include a detailed assessment of potential effects to sensitive species (including Special Protection Area (SPA) birds)) from noise, vibration, lighting and visual disturbance during the construction phase. This may need to include baseline monitoring and modelling of noise and vibration levels in locations where sensitive receptors, such as SPA birds, are found.
128 129	7.4.1 7.4.2	The ES should include all potential construction and operational effects to aquatic fauna such as isolation of fish during construction activities, or alterations to navigational channels.
129	7.4.2	The ES should include a detailed assessment of potential effect to sensitive species (including SPA birds) from recreational disturbance from new users of public spaces during the operational phase.
128 129	7.4.1 7.4.2	The EIA scoping report acknowledges the value of Open Mosaic Habitat (OMH) present within the site in a number of locations, including Manor Farm. The ES should fully assess potential effects to OMH from both construction effects such as habitat loss, and through operational effects such as recreation and dog walking.
Scoped in/out topics		
132	7.4.3.2	Mole Gap to Reigate Special Area of Conservation (SAC) is mentioned in Section 7.3. If this SAC is not taken forward to assessment stage the ES should present full justification for this.
132	7.4.3.2	Fish (certain species) listed but eels listed separately. The ES should clearly state which fish will be included within the assessment.
133	7.4.3.4	It is agreed that none of the biodiversity features should be scoped out from the EIA.
133	7.5.11	Given secondary mitigation measures are required to ensure potential effects from transportation of INNS and pollution from stored chemicals or fuel are avoided, these potential effects should be scoped into the EIA.
134	7.5.2.1 (3 <sup>rd</sup> bullet)	Where mitigation measures are required to avoid/minimize operational effects to designated sites, to a level where they would be not significant, this should be fully assessed and captured within the ES.
Mitigation		
135	7.6	Mitigation measures should follow the overarching principles of the Mitigation Hierarchy
135	7.6	The design of green and blue infrastructure including Habitat Creation Areas should be undertaken in full consultation with Host Authorities (including the Project Group), Natural England, Environment Agency, and other consultees.

135	7.6	Mitigation required to avoid significant effects to European sites or qualify species, should be informed by the requirements of the Habitats Regulation Assessment (HRS).
135	7.6	Timing restrictions for works in proximity to watercourses should be discussed and agreed with the EA.
135	7.6.3	Mitigation to offset potential operational effects may need to include strategic measures to mitigate effects to designated sites or qualifying features from likely increased recreational activities as a result of the RTS.
135	7.6.2	Where protected species will be affected, details of mitigation requirements should be provided, along with the mechanism to secure licenses where required. The Applicant may wish to produce draft protect species license applications and agree these with Natural England.
135	7.6.2	Measures to remove fish from working areas in rivers and other waterbodies to be considered as part of the assessment and appropriate licenses and/or mitigation sought.
135 138	7.6.2.1 7.6.3.1	There is potential to facilitate the migration of aquatic INNS which are present in the local stretch of the Thames into the proposed lakes along the RTS through Spelthorne, particularly as each lake is designated a Site of Nature Conservation Importance. Paragraph 7.4.2.1 states the potential benefits to fish and mobile aquatic species through the creation of fish passages, but these same mechanisms will enable undesirable species to transit too. <i>Crassula helmsii</i> and Himalayan Balsam are frequent in the area and will require strong control measures to prevent them spreading along new corridors or swamping habitat features created as part of the RTS. It appears the Applicant is consulting with the EA on an INNS management plan and that secondary mitigation for INNS is mentioned in Paragraph 7.6.2.1 and 7.6.3.1. It is expected that this is to be robust to prevent changes to the lake ecosystems which may stop the lakes being used by the overwintering birds for which the SNCIs are primarily valued.
Assessment Methodology		
139	7.7.1.6	The scope of the HRA should be agreed with Natural England. It is suggested this could be done through an HRA Evidence Plan (see <i>Advice Note 11 - Annex H Evidence Plans for Habitats Regulations Assessments of Nationally Significant Infrastructure Projects</i> (The Planning Inspectorate, 2017))
138	7.7	This section suggests that the CIEEM EclA methodology will be used alongside the assessment methodology used in the wider ES. If this approach is taken, it is recommended that the assessment presents the conclusions from both, stating whether effects are significant or not significant at the relevant geographical level of importance.
138	7.7	The ES should include details of all relevant planning policy against which the application will be assessed.

## 1.8 Climatic Factors

Page	Reference	Comment
Data Sources		
148	8.2.1.3	The ES should set out the emission factor data used in the assessment and set out why those selected are appropriate for use in the EIA.
148	8.2.1.3	Any assumptions made on activity data, material and on-site activities should be clearly stated in the ES. There is no mention of sourcing construction and operation transport data or the study area for the affected road network. This should be obtained from the transport model for the affected road network.
149	8.2.1.5	This section does not confirm the source of the future climate projections that are referred to, however it is noted that later on in the EIA Scoping Report reference is made to the Met Office UKCP18 projections. Clarification is required.
Baseline		
150	8.2.3.1	This paragraph states that during operation, changes in trip generation for roads in the local area will not be significant to require additional assessment for greenhouse gases (GHGs). This should be confirmed through review of traffic data at PEIR and ES stage before this can be scoped out of further assessment.
151	8.3.1.1.	It's not clear how 'material emissions' has or will be defined. This is key to understanding the scope of the GHG assessment.
152	8.3.1.6	The assessment should consider relevant publications, including more recent information published by the Met Office than the 2016 climate profile of Southern England alone, to aid in establishing a more up to date baseline.
152	8.3.2.2 – 8.3.2.5	It's agreed that RCP8.5 is an appropriate emissions scenario and this should be used to establish the future baseline. No other information is provided on the UKCP18 data that will be used to establish the future baseline. The ES should clearly set out the model selected (e.g. probabilistic 25km, regional 12km or local 2.2km) and provide the rationale for this. The assessment should be based on the 50th percentile and account for the uncertainties that exist around climate projections. Lifecycle stages should be assessed in the short, medium, and long term (i.e., 2030s, 2050s and 2080s). The climatic baseline should consider extremes in short-term weather events, such as heatwaves; long-term climatic variability, such as seasonal changes in precipitation; and average climate norms, such as ambient temperature.
Effects scoped in / out		
156	8.5.1.1	It is not clear what has been scoped out for construction phase GHG effects. Some movement of plant and materials appears to be scoped out with little evidence as to why. Further justification should be provided
Mitigation		

157	8.6.2.3	The mitigation is welcomed, although it's noted that no primary mitigation has been identified. Other opportunities for mitigation should be explored, for example, the use of floating photovoltaics. Further information of mitigation and how it will be secured should be set out in the ES.
Methodology		
159	8.7.1.3	The ES should set out the inventory of GHG emissions for each life cycle stage, as defined in PAS 2080.
159	8.7.1.4	It's difficult to understand the full scope of assessment without further information on the emissions that are to be excluded. Further engagement is required on this topic. In line with IEMA guidance and PAS 2080, emissions should only be excluded where expected emissions are less than 1% of total emissions and where all such exclusions total a maximum of 5% of total emissions; all exclusions should be clearly stated.
159	8.7.1.3	There is no reference to the life span of the project within the Climate Change Mitigation assessment methodology and, while it's noted that the project is anticipated to have a long term design life, the assessment should consider the net impact of GHGs over its life time. This may be done by selecting an appropriate time frame of, for example, 60 years. It is unclear how the GHGs for the scheme will be assessed against the future baseline set out in section 8.3. The ES should clearly set out the assessment scenarios, temporal boundaries and how the scheme's emissions may be projected forward to a future year.
160-161	8.7.1.8-8.7.1.12	The methodology for determining significance in this chapter is very unclear and sets out two contradictory approaches. The PEIR should confirm the approach to be adopted in the ES along with the rationale for this.
162	8.7.2.1	It is not clear if the construction stage is being scoped out of further assessment in the Climate Change Adaptation assessment. It is not scoped out in section 8.5, however there are several references to " <i>not envisioning climate will have any effect on the project during the construction phase</i> ". No justification is given to support this statement. If the construction stage is being proposed to be scoped out, further justification is required given that there is an abundance of evidence that climate change is having impacts already and the construction period will go into the next decade.
162	8.7.2.2 – 8.7.2.4	No information is provided on how significance will be determined, or how the risk-based approach will be undertaken. This makes it difficult to comment if the methodology is appropriate. The PEIR and ES should clearly set out how this has been done.

## 1.9 Cultural Heritage, Archaeology and Built Heritage

Page	Reference	Comment
General		
166-206	General - Cultural	There are concerns regarding monitoring potential hydrological changes caused by the RTS and how these might impact the designated archaeological sites in particular. It is noted that there is not a lot in the

	Heritage Overview	<p>EIA Scoping Report about the location and nature of the proposed Habitat Creation Areas in relation to cultural heritage. It is assumed that Habitat Creation Areas are still at an early stage and that there will be more discussion, therefore, further engagement will be required.</p> <p>The County Council's Historic Environment Planning Team look forward to archaeological prospection works continuing within the study areas to inform the EIA and any required mitigation.</p>
166-206	General – Archaeology	<p>The RTS runs through a landscape which previous investigations have demonstrated has a high potential to contain significant archaeological and paleoenvironmental deposits, particularly from the prehistoric and medieval periods. This archaeological sensitivity is acknowledged by the decision to scope in archaeology within the EIA.</p> <p>The EIA Scoping Report contains a chapter on Cultural Heritage, Archaeology and Built Heritage that identifies that the RTS will have an impact on potentially sensitive and significant archaeological deposits and sets out a summary of the baseline work carried out to date by York Archaeology as well as identifying appropriate methods of further investigations and mitigation works that will be taken forward in the EIA.</p> <p>A comprehensive suite of investigations has been carried out since 2016 including desk based research, geophysical and LIDAR survey and geoarchaeological and archaeological evaluation. This work has produced a good understanding of the likely impact of the proposals on below ground deposits and enabled areas of particular sensitivity to be identified and evaluation strategies designed accordingly. Some areas have not been subject to physical investigation due to logistical reasons and some further work remains to be carried out but we can confirm that the work undertaken so far, together with the approach set out in the EIA Scoping Report confirms best practice and will allow all significant effects that the development will have on cultural heritage to be identified and allow appropriate measures to be put in place to mitigate any adverse impact on the archaeological resource.</p>
166-206	General – Built Heritage	<p>It is noted that the Applicant is intending to scope in the impact on built heritage as part of this scheme. In paragraph 9.4.1.1 (p.194) the Applicant makes clear they will consider the impact on the setting of heritage assets as part of construction effects. In paragraph 9.4.2.1 (p.196) the Applicant states they will consider the impact on the setting of heritage assets as part of operational effects. As there is no direct impact on built heritage assets as part of this scheme the County Council's Historic Buildings Officer is content that this will be sufficient to allow the scheme to be properly assessed.</p> <p>It is agreed that the impact of general maintenance activities, or the removal of non-hazardous materials (not including construction traffic) is scoped out of the EIA as outlined in Paragraph 9.5.1.</p>



## 1.10 Flood Risk

Page	Reference	Comment
General		
207-235	General	The Applicant should be made aware of the following: Where proposed works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent. More details are available on our website.
210	10.2.2.4	A Flood Risk Assessment (FRA) will be produced to comprehensively assess flood risk and would form an appendix to the ES
48	4.3.1.2	It is noted that a peak flow value of 150m <sup>3</sup> /s has been stated as a design value for the new channel. It is not clear what return period is the scheme being designed to / protect against (if applicable)?
212	10.2.2.13	Level for level floodplain compensation should be provided for any loss of floodplain storage capacity.
211	10.2.2.11	Evidence should be provided within the FRA that the components of the RTS are located in appropriately compatible Flood Zones as per PPG Table 2.
223	10.4.2.1	Will the FRA include analysis of sensitivity testing of structures (i.e. blockage scenarios of any new bridge crossings/culverts etc)? Will changes in channel capacity due to sedimentation (possibly due to changes in velocity of the water and altering the channel capacity) also be included in the sensitivity testing?
		How will the Flood Zones be defined? (i.e. as the definition ignores the presence of formal defences, will the baseline flood zones remain as the pre-construction scenario or will a new baseline be defined post construction e.g. based on a reduced scheme operation?
214	10.3.1.4	It is noted that the EA are considering the updated definition of Flood Zone 3b Functional Floodplain of the 1 in 30 annual probability flood event (rather than 1 in 20). It is assumed this change would only formally take place once the revisions have passed through local planning policy documents (i.e. SFRA).
Data/survey		
208	10.2.1.2 - 10.2.1.3	Lower Thames 1D-2D Flood Mapping Model (EA, 2019) is to be used as a basis for the assessment, locally refined and run for the baseline and post-development scenario. Important to consider if any phases of construction will result in constraint to flow/potential detrimental impact
234	10.8.2.1	It is noted that the post development will be subject to an independent review in-line with the EA's standard review process.

Scoping area / area of assessment		
212	10.2.3.1	The study area is stated as the 'upstream and downstream boundaries of the 1 in 100 annual probability floodplain to be affected by the project' as defined in Figure 10.1. This should include climate change impacts
Baseline		
213	10.3.1.5	Will this connectivity be considered in terms of the mobility of contaminants? The Littleton South Lake is situated to the south of the connected to the north lake by a culvert under the M3 for example, so although not part of the scheme water can flow between the two lakes.

## 1.11 Health

Page	Reference	Comment
General		
n/a	n/a	The comments provided within this review do not include comments on air quality, noise, and other environmental health hazards, as these have been covered by the comments provided elsewhere in this EIA Scoping Response.
Data/survey		
236	11.2.1.1	The EIA Scoping Report identifies the baseline year to be used in the assessment as 2021. There were pandemic restrictions throughout this year, and the Applicant should consider if there any associated implications with using 2021 as opposed to 2019 or 2022 without such restrictions as a base year, for example activity levels may have varied due to workplace restrictions and disruptions to commuting etc. Due to the reductions in air pollution associated with decreased traffic flows in 2021 the health data for asthma, heart attacks and other air pollutant linked health conditions may not reflect a more normal traffic flow year. This should be noted in limitations where relevant.
239	11.2.2.9	Engagement list does not include Local Authority Environmental Health Departments but rather is through the County Public Health Team. In order to reach specialists in air quality and noise it would be prudent to also consult the Senior Environmental Health Managers for the Project Group
239	11.2.2.9	In addition to understanding the baseline characteristics, engagement with local authority public health officers should include discussion of local health priorities and how the Scheme can support these. The Applicant should seek the public health officer's local knowledge of vulnerable groups, to be considered in the assessment.
242	11.3.1	The health baseline should include data that is relevant to the potential impacts of the RTS, where available. For example, in Paragraph 11.4.1.1 the Applicant identifies a potential impact during construction to be temporary adverse effects on air quality. The baseline studies should therefore identify the percentage of the community with respiratory diseases/ chronic obstructive pulmonary

		disease and deaths from respiratory disease. This data is available from the Office for Health Improvement & Disparities health profiles, Fingertips public health data, and National General Practice Profiles. In Paragraph 11.4.2.1 the Applicant identifies that the RTS could provide a beneficial effect by encouraging more outdoor recreation. The baseline should therefore set out the current activity levels of the population in the Study Area, for example using Sports England Active Lives data tables. The assessment should then identify how the RTS could influence this baseline.
256	11.7.1.5	Through the baseline studies, key vulnerable groups should be identified who may be disproportionately affected by the RTS. The Wales Health Impact Assessment Support Unit (WHIASU) provides a list of potential vulnerable groups that should be reviewed to ensure all potential groups are captured. Consideration should be given to relevant vulnerable groups in the assessment and during consultation, and any specific mitigation to reduce impacts on vulnerable groups should be identified.
<b>Scoping area / area of assessment</b>		
240	11.2.3	As noted in Paragraph 11.3.1.4 and within the limitations section, geographies do not always align with health datasets required to complete the health baseline. There are instances where ward level data is not always available for relevant health determinant data. It is advised that the Applicant use the Middle Super Output Area (MSOA) level data, as health data is aggregated at this level. This would allow for more direct comparisons between datasets. Furthermore, MSOA level data are more stable over time compared to wards.
<b>Scoped in/out topics</b>		
249	11.4	The EIA Scoping Report identifies potential creation of jobs and training opportunities. The assessment should set out how the Applicant will prioritise local job creation in the first instance and how this can be secured e.g. preparation of an Employment and Skills Plan. This should include consideration for apprentice provision.
252	11.5.1.1	The transport of hazardous materials is scoped out, yet this will generate emissions to air from the HGV vehicle exhausts, so should be scoped in with regards to air quality. The vehicles will also contribute to noise levels. Permits covering the processing and treatment of materials are unlikely to consider the impacts of the vehicles transporting the material on local air quality and noise so health impacts could be missed regarding the associated vehicles.
253	11.5.2.1	The EIA Scoping Report notes potential adverse effects from light pollution and states that this potential effect will be 'designed out'. Consideration should be given to the role that lighting may provide in reducing crime/ fear of crime, especially in areas of the RTS which may not benefit from natural surveillance. The lighting and open space design should be considered with the principles set out in the Secured by Design initiative and included with the Design Principle or Design and Access Statement (or similar) with the DCO application. This could also be raised during consultation with the local police force, which the Applicant has stated they will do in Paragraph 11.2.2.9.

255	11.6.2.1	Will there be a dedicated scheme ground gas risk assessment to secure appropriate monitoring and mitigation concerning ground gas migration?
255	11.6.3.1	Consideration should be given to how vulnerable groups will be considered within the consequent stages of the RTS's design and consultation. For example, shading and suitable paving along active travel routes, and provision of benches and a range of seating areas will help to ensure the elderly, pregnant women and those with pre-existing health conditions can benefit from the RTS, these provisions should be included in any future consultations/engagement. The mitigation section of the ES should set out how these elements will be considered and secured during the detailed design phases.
256	11.7.1.4	The magnitude of effect should also consider whether any vulnerable groups are likely to be affected by the impact, and whether the impact is linked to a local public health priority/ objective. The scientific literature/ strength of evidence base linking the aspect of the RTS to health outcomes should also be considered. The Human health: ensuring a high level of protection (International Association of Impact Assessment, 2020) paper sets out how contextual considerations should support a robust reasoned conclusion on significance.
257	11.7.1.5	The EIA Scoping Report states that an Equalities Impact Assessment (EQiA) will be undertaken. The purpose of the EQiA is to ensure the RTS promotes equality and does not discriminate against people with any of the nine protected characteristics as set out in the Equality Act 2010. It is advised that the EQiA should be prepared at the earliest stages of the design development so that the design can be modified should any impacts on protected characteristic groups be identified.
258	11.7.2	The Applicant has referenced the Healthy Urban Development Unit (HUDU) rapid HIA toolkit (2019) within Chapter 23 References, however it's not clear how the toolkit will be utilised in the health assessment. The toolkit can help identify determinants of health likely influenced by the RTS. Given the scale of the RTS, the HUDU Healthy Urban Planning Checklist (2017) may provide a more comprehensive analysis of all potential health and wellbeing impacts. The Applicant should review the Checklist to ensure all potential health and wellbeing impacts are captured. The methodology should clearly set out which determinants of health have been scoped into the assessment and why, and those that have been scoped out, and why.
259	11.8.1.1	As noted above, a key limitation is that the impacts of the covid-19 pandemic are still emerging and may not be reflected in the health baseline, especially if the only data available for some health determinants is prior to 2020. This should be acknowledged where relevant in the limitations and baseline. The covid-19 pandemic has also highlighted the need for local, high quality green open space. Impacts of the covid-19 pandemic should be considered in the assessment where relevant.

## 1.12 Landscape and Visual Amenity

Page	Reference	Comment
General		
261-295	General	<p>The Project Group is broadly content with the proposed scope, baseline information and methodology for the Landscape Visual Impact Assessment, although it is noted that the scheme design development is ongoing and further consultation will take place, including as part of the PEIR. The further design development will include the landscape (including new landforms) and biodiversity design elements. Once the scheme design is fixed a finalised Zone of Theoretical Visibility (ZTV) will need to be produced and the study area for the LVIA confirmed. Viewpoints will also need to be finalised and confirmed with the Host Authorities and further consultation will be required to enable appropriate technical input to this process.</p> <p>Commentary within Chapter 12 states that the effects of lighting will be considered within the LVIA which is welcome. Lighting should be assessed within the landscape and visual effects assessments and consideration should be given to the need for night-time viewpoint photography, particularly for key sensitive receptors / key representative viewpoints.</p> <p>With regard to proposed viewpoint photography and visualisations, Paragraph 12.7.1.4 states that where possible, photography will be undertaken in both summer and winter months. This is welcome, however for the avoidance of doubt, the Project Group would expect that for a scheme of this significance, as a minimum winter photography for all agreed viewpoints should be undertaken to demonstrate the worst-case scenario. It is also stated that visualisations will illustrate the project at Year 1 and Year 15. Consideration should be given to producing visualisations for any predicted significant construction effects, for example, in relation to large construction compounds and infrastructure including tall plant, as the construction phase is likely to be present in the landscape and within views for a significant period of time. Baseline photography and visualisations should accord with Landscape Institute Technical Guidance Note 06/19 – Visual representation of development proposals. For a scheme of this significance Type 4 visualisations are likely to be the most appropriate.</p>
	General	Engagement between the Applicant and Project Group required on the potential impact of the route on tree preservation orders (TPO's), particularly around Ferris Meadows (Spelthorne).

## 1.13 Materials and Waste

Page	Reference	Comment
General		

296-329	General	<p>The Project Group agrees that the proposed scope of the EIA should include the topics of materials and waste (Chapter 13). These matters are particularly relevant to the remit of the Minerals &amp; Waste Planning Authority (MWPA) which includes ensuring a steady and adequate supply of minerals and the provision of sufficient facilities to manage Surrey’s waste.</p> <p>It is noted (Paragraph 4.2.1.1 of the EIA Scoping Report) that enabling works relating to the RTS are proposed to commence in mid-2026 and construction should be completed by early-2032 (some 6-years).</p>
<b>Policy Framework</b>		
296-329	Policy Framework	<p>Key policy documents that will need to be considered in relation to materials and waste</p> <ul style="list-style-type: none"> <li>• Surrey Waste Local Plan 2019 – 2033</li> <li>• Surrey Minerals Plan Core Strategy 2011 – 2026</li> <li>• Surrey Minerals Plan Primary Aggregates DPD 2011 - 2026</li> <li>• Surrey Minerals Plan Site Restoration SPD 2011 – 2026</li> <li>• Surrey Aggregates Recycling Joint DPD 2013 - 2026.</li> </ul> <p>Appropriate considerations should be given to emerging minerals and waste policy during the DCO process.</p> <p>Notwithstanding the above, the MWPA is preparing the county’s first joint minerals and waste local plan which will seek to provide for a minerals and waste development framework for a period of 15-years (2024 to 2039). To this end a Reg18 Issues and Options public consultation was undertaken between November 2021 and March 2022, and the MWPA is presently preparing the associated Reg 18 Preferred Options public consultation which is set to take place in June 2023. Further public consultations and an examination in public will be held before the Minerals and Waste Local Plan (MWLP) is adopted by SCC at the end of 2024. Upon adoption the MWLP will supersede the existing DPDs and SPD listed in Appendix M.</p>
<b>Stakeholder Engagement</b>		
297-300	13.2.2 – Stakeholder Engagement	<p>It is noted at Paragraph 13.2.2.3 of the EIA Scoping Report that the materials management feasibility study and Materials Management Strategy (MMS) that are being developed in parallel to the DCO process and that these initiatives will provide further clarity on the waste management proposals and waste streams relating to the development including the exact quantity and types of material to arise from the proposal and how any surplus will be utilised. It is also noted (Paragraph 3.2.2.9) that consultation with Environment Agency’s contaminated land and waste technical specialists and its National Permitting Service regarding material re-use, effects to landfills and waste recovery permits and applications is ongoing; and that, in consultation with the Environment Agency, a ‘Contamination and Waste’ advisory group will be formed to guide the project design and the MMS.</p>

		The Applicant's commitment (Paragraph 13.2.2.11) to additional engagement with stakeholders prior to the submission of the DCO, in order to fully understand baseline characteristics, significance of effect and potential approaches to mitigation and management for materials and waste, and the consenting approach is welcomed.
<b>Study Area</b>		
300-301	13.2.3 – Study Area	The approach set out in relation to the study area (Paragraphs 13.2.3.1 and 13.2.3.2) for the purposes of waste management and primary materials and waste is agreed.
<b>Permitted Landfill Site in Surrey</b>		
309-310	Table 13-2 – Permitted Landfill Sites in Surrey	It should be noted that Harlington Gravel Pit is not within the administrative boundary of Surrey or Spelthorne, it is located within the London Borough of Hillingdon.
299	13.2.2.6	The proposed landscape beacons will require suitable validation testing by an appropriately qualified person in accordance with the LCRM regime, to ensure that placed soils are geochemically suitable for the end land use and do not present a health hazard to the public using the facilities and landscapes provided by the scheme and necessary permits sought.
300	13.2.2.10	Has information from the Esso Southampton to London Pipeline scheme which was required to undertake ground investigations, within the RTS Application Boundary, under the granted DCO, been incorporated where relevant (including regarding the Soils chapter)?
<b>Key Environmental Considerations and Opportunities</b>		
314	13.3.3 – Key Environmental Considerations & Opportunities	The environmental considerations and opportunities in relation to materials and waste as set out in Paragraphs 13.3.3.1 and 13.3.3.2 are agreed.
<b>Construction Effects</b>		
314-315	13.4.1 – Construction Effects	The likely significant effects arising from construction as set out in Paragraph 13.4.1.1 are agreed. However, Paragraph 13.4.1.2 appears to require further consideration. The proposed route of the RTS development appears to (largely) pass through previously worked and infilled land and is therefore likely to have limited potential as an incidental source of primary material (windfall over and above mineral resources within Preferred Areas for mineral extraction as set out in the Surrey Minerals Primary Aggregates DPD). Where minerals have been previously worked, the relevant land should also be restored or otherwise reclaimed. In this regard it is more likely that the RTS would enhance or compliment previous restoration/reclamation efforts as opposed to contributing to the reclamation of historic landfills. Nevertheless, it is not clear how the excavation of closed landfills and removal of previously deposited waste (thereby reducing the volume of landfill material) would provide for significant

		<p>beneficial effects in and of itself. A large proportion of historic landfill material (particularly hazardous waste, contaminated waste, local authority collected waste, and commercial and industrial waste) is unlikely to be suitable for recycling or recovery and so would need to be re-disposed of either at an operational landfill elsewhere or through thermal treatment.</p> <p>Any incidental excavation of minerals to facilitate the RTS is unlikely to have adverse effects on the MWPA as a local planning authority. It is more likely to influence the local market for primary minerals (sharp sand and gravel) in the context of supply and demand. However, given the limited potential for mineral extraction this influence is not likely to be material. In this respect, unless windfall material is discarded, it is likely that incidental extraction of minerals from areas outside Preferred Areas for mineral extraction (as set out in the Surrey Minerals Plan Primary Aggregates DPD) will have a neutral/positive effect in that it would substitute for minerals that would otherwise have been extracted elsewhere and transported to and used as part of the RTS.</p>
Operational Effects		
315-316	13.4.2 – Operational Effects	<p>In relation to Mineral Safeguarding Areas (MSA) and the likely significant operational effects detailed in Paragraph 13.4.2.1, different land uses are classified according to their flood risk vulnerability as per Table 2 of the Planning Practice Guidance (Paragraph: 079 Reference ID: 7-079-20220825) with development classified as: essential infrastructure; highly vulnerable; more vulnerable; less vulnerable; and water compatible. Sand and gravel working is classified as a ‘water compatible’ use of land as per Annex 3 of the National Planning Policy Framework 2021. As a water compatible land use, sand and gravel working is considered appropriate in all Flood Zones subject to, at application stage, a site-specific flood risk assessment for development proposals in Flood Zones 2 and 3. Consequently, although the scope for mineral extraction may be reduced (by virtue of standoffs, severance, or access for example), the existence of flood channels in themselves is unlikely to prevent future working of minerals within these areas. In respect of other project components that arise from the RTS, future mineral development within MSAs could compliment or enhance such features through carefully designed restoration and long-term management schemes particularly where a landscape based approach is adopted.</p>
Effects not requiring Assessment		
316-317	13.5 – Effects not requiring Assessment	<p>It is agreed the construction and operational effects as set out in Paragraphs 13.5.1.1 and 13.5.2. do not require an assessment</p>
Approach to Mitigation		
317-318	13.6 – Approach to Mitigation	<p>In respect of mitigation, the Applicant's commitment to embedding the Waste Hierarchy within the design of the RTS development as one way of mitigating the environmental impacts of the development (Paragraph 4.1.9.1) should be considered a primary mitigation measure. The secondary mitigation measures under consideration for the construction phase of the RTS development (Paragraph 13.6.2.1)</p>



		are agreed. However, emphasis should be placed on waste prevention over reuse, recycling, and recovery.
317-318	13.6.2.1	Please explain how verification will be secured. Presumably through the MMP, which will be secured as a DCO Requirement?
<b>Significance Criteria</b>		
318-325	13.7.1 – Significance Criteria	The significance criteria set out in Paragraphs 13.7.1.1 to 13.7.1.19 is agreed.
<b>Assessment of Effects</b>		
326-328	13.7.2 – Assessment of Effects	In respect of the assessment of effects, receptors listed at Paragraph 13.7.2.2 should, in addition to Minerals Safeguarding Areas, include existing mineral infrastructure, Preferred Areas for mineral extraction and Areas of Search as identified in the Surrey Minerals Plan Primary Aggregates DPD and emerging planning policy. Approved restoration scheme requirements for mineral workings should also be given consideration in the context of the supply and availability of suitable restoration material. Otherwise, the operational and construction effects set out in Paragraphs 13.7.3.1 to 13.7.5.2 are agreed.
238	13.7.5.1	Note that any hub site attracting traffic to retrieve materials to be used on other sites, should be subject to an air quality assessment to account for the additional traffic.
329	13.8.1.9	Where will the scope of the waste classification testing be secured?  Will testing include geochemical testing to determine whether materials are suitable for the land end use where they will be re-used?
491-495	General	The MWPA can confirm that it has been previously engaged in advising the RTS with respect to EIA scoping and through the provision of pre-application advice. The MWPA will continue to engage and work with the applicant as the scheme progresses through the DCO process.
68-72	5.4.3 - Approach to Mitigation	The Project Group welcomes the Applicant's commitment (paragraph 5.4.3.6 of the scoping report) to the preparation of a Site Waste Management Plan (SWMP) as part of a MMS. This plan should seek to demonstrate how waste will be minimised and recycling and recovery of waste that does arise from the RTS development will be maximised (on or off-site). The SWMP should be prepared as a living document and be in place before any enabling works relating to the development commence.

## 1.14 Noise and Vibration

Page	Reference	Comment
Data/survey		
345	14.2.1.10	The results of the noise survey are included in a separate noise survey report, although this report has not been provided at this stage and therefore no comments with respect to measurements undertaken to-date are provided.
Scoping area / area of assessment		
348	14.3.1.1	<p>The classification of temporary accommodation receptors (including traveller sites and houseboats, if any exist within the study area as non-residential should be justified within the ES, if they are considered to be non-residential. Parks/outdoor amenity areas are not included within the list. Any existing or proposed parks/outdoor amenity areas within the study area should also be outlined within the PEIR and assessed within the ES.</p> <p>The ES should include a detailed assessment of potential effects to sensitive species (including SPA birds) from noise and vibration. This may need to include baseline monitoring and modelling of noise and vibration levels in locations where sensitive receptors, such as SPA birds, are found.</p>
Scoped in/out topics		
346	14.2.2.2	An indication of duration of exposure to construction noise and vibration should also be considered within the ES and considered within the assessment of significance. The assessment methodology should be confirmed within the PEIR and an indication of working hours provided for the construction methodology.
351	14.3.3.1	If outdoor amenity areas are proposed, there is an opportunity to provide outdoor amenity areas with suitable noise levels. The suitability of outdoor amenity space and suitability of footpaths should have consideration for noise levels experienced in these areas. The assessment should be outlined within the PEIR and the assessment should be provided within the ES.
352	14.5.2.1	Operational noise effects on and the suitability of new green spaces should be considered in terms of impact on human receptors and wildlife receptors. The assessment should be outlined within the PEIR and assessed within the ES.
352	14.5.2.1	Noise generating activities on new green spaces should be considered within the ES. Their anticipated use types should be considered and assessed for their suitability with respect to noise generation.
356	14.7.3.1	Noise impacts arising from the use of construction compounds and any haul routes as part of the construction work should be assessed within the ES.

356	14.7.3.1	Noise impact arising from potential noise and vibration works at night should be assessed within the ES.
356	14.7.3.4	The duration of exposure, required to consider effects to be significant, is not provided. The assessment of significant effects should be outlined within the PEIR and assessed in the ES.
360	14.7.3.14	This paragraph states that both the do minimum and do something scenarios include growth and committed development traffic, whereas Paragraph 14.3.2.1 advises that the baseline will be used without committed development traffic (to ensure a worst-case assessment). Best practice would be to include growth and committed development traffic within the assessment. The approach should be confirmed within the PEIR/ES as these paragraphs appear to conflict.
360	14.7.3.14	It is not confirmed which construction year is being assessed. The assessment within the ES should consider and assess impacts during the peak construction year, as a minimum.
360	Table 14-5	Any change in the resultant Leq,16hour, for roads with traffic flows below 1000 should also be considered within the ES.
361	14.7.3.16	Based on this paragraph, vibration from offsite construction traffic is to be assessed by reviewing road conditions and distances to receptors. The assessment should be presented within the ES.  The impact of vibration and underwater noise on the impact on aquatic wildlife should be assessed within the ES.
361	14.7.4.1	DMRB LA 111 paragraph 3.51 advises that the following scenarios should be assessed:  "1) Short term: DMOY compared against the DSOY; 2) Long-term: DMOY compared against the <i>DSFY</i> ; 3) <i>Non-project noise change: do-minimum future year (DMFY) compared against the DMOY.</i> "  Based on guidance within DMRB LA 111, effects should be assessed due to the change between the opening year do minimum and future year do something, rather than the future year do minimum and do something, which the scoping report proposes. The assessment of significance should also consider guidance within Table 3.60 of DMRB LA111.  The assessment should consider the proposed LOAEL and SOAEL values for traffic noise presented within DMRB LA 111.
361	Table 14-6	Any change in the resultant Leq,16hour, for roads with traffic flows below 1000 should also be considered within the ES.
362	14.7.4.6	The uses of the new green open spaces should be identified and confirmed in the ES to ensure the activities are appropriate for the local areas.

		An assessment of noise impact from use of the flood alleviation channels, including the flow of water, should be considered where appropriate.
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## 1.15 Socio-economic

Page	Reference	Comment
General		
352	15.1	It is acknowledged that a separate Economic Appraisal, Equality Impact Assessment and Natural Capital Assessment is being prepared to accompany the DCO application. The Socio-Economic chapter should cross-reference these documents and their findings, where appropriate.
354	15.2.2.2	Despite Surrey County Council requesting a standalone socio-economic technical report (in 2019) rather than part of the EIA process, it is acknowledged that the previously proposed Population Chapter has been split and a separate Socio-Economic chapter and Health Chapter is now proposed as part of the PEIR/ES. The proposed approach is supported and allows for each chapter to specifically address the relevant issues.
374	15.7	The EIA Scoping Report does not specify whether the assessment of socio-economic effects will be quantitative or qualitative. Where possible, the assessment should be quantitative, for example stating how many jobs will be created, how much Gross Value Added (GVA) will be created etc., rather than just qualitatively stating it will support economic growth.
Data/survey		
353	15.2.1.1	2011 Census data is cited as being one of the data sources used to inform the socio-economic baseline. The Socio-Economic assessment in the PEIR/ES should ensure that the 2021 Census data is used, if published and available at the time of writing.
356	15.3	Need to ensure that the source of all baseline data is referenced accordingly, including the year it relates to when the PEIR/ES is produced. The EIA Scoping Report does not do this consistently.
358	15.3.1.12	Need to ensure that the most up to date baseline data is used in the assessment. For example, GVA data for the year 2016 is reported in the EIA Scoping Report. This is not the latest data available (2020 estimates are available from the ONS). Similarly, population data is reported from the 2011 Census. This is over 10-years old and therefore is considered to under report the population of the Study Area. Mid-Year Population Estimates (MYPE) published by the ONS or 2021 Census data should be used as the source of population data.
356	15.3	Total resident population is reported. The assessment should also consider the age profile of the population to identify key life stage cohorts in the Study Area's population (for example, children, working age and older persons).

	Figure 15-1 Appendix A	Figure 15-1 identifies the socio-economic receptors. For the PEIR/ES details of the individual receptors should be incorporated (i.e. in table format) and the distance of each individual receptor from the RTS reported. This will enable quantification of the number of places of worship, education establishments etc. that have the potential to be affected.
367	15.3.2.1	The future population of the Study Area should be reported in the future baseline using the ONS Sub-National Population Projections.
367	15.3.2	The future baseline currently presented references different years (mid-2030, 2039 and 2045). The future baseline should be consistent and represent the completion year where possible.
	15.3	The baseline should report on the number of homes in the Study Area (and each of the respective local authority boroughs).
Scoped in/out topics		
		The previous EIA Scoping Report (2017) identified the potential for temporary adverse effects during the construction phase on air quality and odour with potential implications for the health of the local communities and associated effects on livelihoods of commercial businesses. It is appreciated that the health of local communities will be covered within the separate Health ES Chapter. However, the socio-economic assessment should include an assessment on the associated effects on livelihoods of commercial businesses.
		Similarly, the previous EIA Scoping Report (2017) identified the potential for an adverse effect on local residents by overlook from the 'beacons' to private residential properties but this is not mentioned in the latest EIA Scoping Report. Such effects should be scoped into the assessment.
		Surrey County Council requested the inclusion of noise and vibration effects on the amenity of nearby residential properties to be considered. This does not appear to have been scoped into the EIA but should be included even if just through cross-reference to the Noise assessment and subsequent findings.

## 1.16 Soils and Land

Page	Reference	Comment
<b>General</b>		
380	16.1.1.2 & 16.1.1.4	It is noted that this paragraph indicates that effects from contamination on water quality is covered in this section, and then Paragraph 16.1.1.4 contradictorily indicates that the assessment of groundwater and surface water quality in relation to land potentially affected by contamination is covered in Chapter 18: Water Environment. This is acceptable providing the interaction between land potentially affected by contamination and the impacts and effects on water quality are adequately covered in Chapter 18: Water

		<p>Environment and adequately cross referenced in this chapter. The assessment should also include potential impacts and effects on private water supplies within the study area.</p> <p>In Chapter 18 - It is noted that the suite of testing determinands for the groundwater monitoring, referred to in Reference 18.2.1.11 is not described or justified. Groundwater baseline monitoring must be carried out, covering a range of appropriate determinands that are agreed with the Host Authorities and the EA. An appropriate hydrogeological risk assessment of the potential impacts on groundwater quality from the project including the potential to mobilise existing contamination and create new pathways for contamination must be carried out in accordance with appropriate best practice, to a scope agreed with the Host Authorities and the EA.</p>
381	16.2.1.1	The baseline methodology is indicated to have been informed by a Desk Based Assessment (DBA). The DBA has not been submitted with the EIA Scoping Report and therefore cannot be commented upon at this stage.
405	16.8.1.4	The stakeholders should be defined and include the LA's and the EA where controlled waters are concerned
	General	The EIA Scoping Report identifies that there is agricultural land of quality grades 2 and 3 (very good and good to moderate) within the study area. Agricultural land of grades 2 and 3a is defined by Natural England as the Best and Most Versatile (BMV). It is not entirely clear whether Soils as a resource, and agricultural land are proposed to be scoped into the ES, although it may be that Reference 16.4.1.1 (1) and (2) are intended to convey that, but it in any case we consider that Soils as a resource, and agricultural land are scoped into the ES. This should include, as previously requested by NE, an assessment that takes account of the ecosystem services they provide as a resource. The Scoping Report does not set out the methodology by which any assessment of soils and agricultural land will be undertaken, and we advise that this must be completed in accordance with best practice and measures to protect soil resources should be in accordance with the 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (Defra 2009).
	General	The Geology and Soils chapter of the EIA Scoping Report does not make any reference to land stability and/or geological hazards. It is advised that a preliminary land stability risk assessment should be undertaken, with the findings used to inform the EIA.
Data/survey		
381 & 382	16.2.1.2 & 16.2.1.4	<p>The EIA Scoping Report refers to historical ground investigations, however the locations and therefore coverage of the scoping boundary has not been submitted and the adequacy of the coverage cannot be commented on. It is incumbent on the Applicant that the GI coverage is adequate to inform a robust ES, engagement with the Host Authorities on this topic is required</p> <p>It is noted that further baseline surveys are proposed to inform the ES. The scope and methodology of such surveys should be agreed with the Host Authorities and EA before the works are undertaken.</p>

		<p>There is likely to be relevant ground condition information available in the public domain for some areas of the project, associated with the Esso Southampton to London Pipeline scheme – which was required to undertake ground investigations as part of the DCO.</p>
382	16.2.1.4	<p>The EIA Scoping Report describes that sources of potential land contamination have been identified within the land quality study area, that there are likely significant effects relating to land contamination, and that ‘remediation of contaminated land will be considered where appropriate’ (Reference 16.6.2.1 (1)).</p> <p>We advise that as the project could give rise to significant environmental effects in relation to land contamination, the full process of ground investigation, risk assessment, options appraisals and preparation of a mitigation and/or remediation strategy (as appropriate) will be needed to support the DCO application and inform the EIA. This process must be undertaken in accordance with that set out in Land Contamination Risk Management (LCRM), published by the Environment Agency.</p> <p>The need for further baseline surveys is noted. We advise that in accordance with Stage 1 risk assessment (LCRM) the Applicant will be required to provide a Phase 1 desktop study and walkover for the entire land quality study area. This should include a preliminary risk assessment that identifies and evaluates all potential sources and impacts of land and/or groundwater contamination relevant to the site. This should comply with BS10175: Investigation of potentially contaminated sites code of practice and be undertaken by a competent person. It is acknowledged that a DBA is indicated to have been carried out – however this has not been submitted with the EIA Scoping Report. It is advised that the Phase 1 desktop study must include all potential sources of contamination (including ground/landfill gas) at the time of preparation and be informed by data as up to date as practicable.</p> <p>Landfill information has been provided for licensed activity and we advise that details regarding unlicensed activities should also be provided.</p> <p>Given the nature of the project and anticipated ground conditions within the scoping boundary, a Phase 2 intrusive investigation is likely to be required to fully and effectively characterize the nature and extent of any land and/or groundwater contamination and provide information for a detailed assessment of the risks to all receptors that may be affected. This should include ground gas and a ground gas risk assessment, as appropriate. As a minimum Tier 2 Generic quantitative risk assessment is anticipated but it may also be necessary, depending on the outcome of the Tier 2 GQRA, to undertake Tier 3 Detailed quantitative risk assessment (DQRA). This should comply with guidance provided by LCRM and be undertaken by a competent person (whose details should be included in the ES).</p>

		<p>Depending on the findings of the Stage 1 risk assessment (LCRM), Stage 2 options appraisal (LCRM) may be required to address any contamination linkages. The results of the Phase 2 intrusive investigation and detailed risk assessment should be used to prepare the options appraisal and remediation strategy. It should provide full details of the remediation measures required, how they are to be undertaken and a plan for how they will be verified and reported. It should also identify the need for any longer term monitoring of pollutant linkages, maintenance and arrangements for contingency action. The options appraisal and remediation strategy will need to be agreed in writing by the LPA and EA prior to commencement and implemented to the satisfaction of the LPA and EA, by a competent person (whose details should be included in the ES).</p> <p>The reports produced at the various stages of risk assessment must be appended to the ES.</p> <p>There is potential for direct impacts on ground conditions and both groundwater and surface water quality arising from implementation of any remediation strategy. Therefore, the mitigation and / or remediation strategy will need to be developed to the stage where the environmental impacts of implementing the strategy can be assessed as part of the EIA. In addition, there may be inter topic effects from the implementation of the remediation strategy, including in relation to dust, noise, traffic, waste etc, and therefore the impacts of the remediation strategy must also be considered within the assessment of other relevant ES topics as appropriate.</p>
405	16.8.1.6	<p>Notwithstanding that further GI will be required to inform design – sufficient GI must be undertaken to inform the ES. The GI must itself be informed by the Phase 1 desktop study and preliminary risk assessment based on all current and historical land uses where there is potential for contamination sources. Geoenvironmental sampling and testing of soils must be appropriate to the anticipated ground conditions based on the current and historical land uses e.g. including PFAS testing in landfill areas.</p>
Scoping area / area of assessment		
384	16.2.3.4	<p>The study area for Land potentially affected by contamination is proposed to be 250m. In the context that the scope of this chapter is described as being limited to soils (Reference 16.1.1.2) and notwithstanding the contradiction highlighted above (References 16.1.1.2 &amp; 16.1.1.4), the study area is acceptable. However, where Land potentially affected by contamination has the potential to impact on groundwater quality, the study area is likely to need to be much greater.</p> <p>Further engagement with the Host Authorities is required on this topic.</p>
Scoped in/out topics		
402	16.7.3.1	<p>It is proposed that a Hydrogeological Risk Assessment is undertaken to assess the magnitude of effects in relation to groundwater flow and pathways. It is advised that Hydrogeological Risk Assessment will also be required to assess the magnitude of effects in relation to groundwater quality.</p>



395	16.5.1.1	The management of material, including movement of hazardous material/waste off site should be undertaken in accordance with a Materials Management Plan (MMP) and in accordance with the Deposit of Waste Code of Practice (DoWCoP).
403	16.7.3.4	The scoping report makes reference to chemical suitability of materials for re-use, but not geotechnical suitability. Where material is proposed for re-use – both the geotechnical and geochemical suitability must be assessed. Material for re-use must be assessed and re-used in accordance with a MMP and in accordance with the DoWCoP.
<b>Significance Criteria</b>		
399	16.7.2	Geological receptors should be included in the significance criteria
399	16.7.2	Soils and agricultural land should be included in the significance criteria
399	16.7.2.3	Any human receptors should be considered as high sensitivity.
400	16.7.2.7 to 16.7.2.9	The definitions of magnitude of effects should include reference to acute and chronic risk to human health, or a definition of 'harmful'. The magnitude of effects should include definitions for all identified receptors e.g. soils and agricultural land, land stability, controlled waters, geology etc and should be defined beyond reference to 'statutory guidance'.
401	16.7.2.12 to 16.7.2.17	The definitions of significant effects should be aligned with the S-P-R risk assessment method for contaminated land and defined for each receptor identified, e.g. soils and agriculture, land stability, geology, controlled waters etc

## 1.17 Traffic and Transport

Page	Reference	Comment
General		
407-430	General	The County Highway Authority does not have any comments to make at this stage on the proposed scope of the EIA for the scheme. A Transport Assessment (TA) would be required with the DCO application. The County Highway Authority has been engaged in discussions with the Applicant in respect of the TA for the RTS over a number of years, including through previous EIA Scoping and pre-application planning advice. The County Highways Authority would expect that such engagement would continue, through the Technical Working Group proposed above, as the scheme develops and progresses through the DCO process.

410	17.2.2.8	Barge movements will need to be considered within the air quality assessment. Should there be mitigation applied, for example signage to prevent idling of vessel engines. Paragraph 17.3.2.12 mentions the potential effects on navigation associated with the bed lowering downstream of the Desborough Cut. Will this lead to increased waiting times at locks etc where boats may be idling their engines?
412	17.2.4.1	This approach will take traffic through areas of the AQMA that are sensitive to a deterioration in air quality and increases in noise. Given the position of the scheme 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?  Potential cumulative impacts could occur with the traffic related to the operation of the recent Shepperton Studios development. Filming tends to involve HGVs for materials/supplies, welfare and to bring in sets and catering.
418	17.5.1.1	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. Traffic from West London is likely to access via the A316 and exit at that junction.
420	17.6.3	Some of the proposed land uses such as water sports and cycling are likely to attract visitors, namely by car. which may car traffic to carry equipment such as canoes and family bicycles to the facilities.  Will there be infrastructure measures such as secure cycle parking to allow visitors to lock up bicycles whilst using these facilities?  The closest railways station in Spelthorne is Shepperton, there are no bathroom facilities for families to use at that station. Improving the facilities at the station and providing more public bathrooms along the scheme route would help to enable families visiting the scheme to use the public transport and active travel modes rather than drive. This would also help the Borough to facilitate more active travel for school pupils between Staines, Shepperton and Sunbury where currently there is one public toilet in Shepperton Highstreet for a walk along the river and scheme of approximately 4 to 5 miles.
421	17.7.1	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?
422	17.7.1.7	Please confirm what denotes a sensitive area.
422	17.7.1.8	The local authorities that make up the Project Group are actively encouraging public transport use and active travel. Although it is recognised the construction period is temporary this will be a prolonged period

		<p>of disruption. Minimising disruption to services is necessary for the Project Group to continue to promote and encourage active travel across the County.</p> <p>Many of the bus routes are long and are relied upon particularly by college students and school pupils and the elderly. These services are vital to keeping car trips down in the already congested morning peak.</p> <p>Earlier in the chapter the congestion is acknowledged, and delays are referenced which is contrary to this statement. Mitigation would be strongly encouraged from the perspective of SBC.</p>
423	17.7.1.10	<p>Community severance regarding the RTS may not be solely the result of issues concerning the roads. The IEMA Severance Criteria presented are based on AADT screening.</p> <p>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. How the scheme, where traffic flows will increase, can physically be navigated in terms of crossings will be very important in supporting active travel.</p> <p>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.</p> <p>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 the routes to car parks, will this be assessed in terms of the physical mitigation to give adequate priority to pedestrians and cyclists safely?</p>
429	17.8	<p>There seems to be an increase in weekend traffic flows compared with prior to the Covid-19 pandemic (within Spelthorne). That may be of relevance to the RTS assessments, therefore the Transport Planning team at Surrey County Council should be consulted regarding post pandemic traffic behaviour.</p>

## 1.18 Water Environment

Page	Reference	Comment
Data/survey		
433	18.2.1.5	Fluvial assessment has been undertaken with a more detailed hydromorphological assessment planned to gain information on sediment transport, deposition, and erosion in the proposed RTS channel. This should include surveying the waterbodies upstream and downstream to establish any change to existing conditions since 2017 and prevent any impact from the design impacting these reaches.
435	18.2.1.14	Sediment samples have occurred and been used to determine if site material can be used elsewhere. What are the proposals for re-use / Can it be utilised for the proposed works? This will need to be considered within the Material and Waste ES Chapter. Can the bed substrate be site-won material? Further engagement with the Host Authorities is required on this topic.
435	18.2.1.17	Modelling has been undertaken / is being carried out, but neither the model or outputs have been provided at this stage. The modelling has been undertaken to establish surface water, groundwater hydrodynamic water quality and sediment transport in the proposed flood channel. Was this done for flood flows and normal 'low' flows to establish all conditions? Has current abstraction been included? Further engagement with the Host Authorities is required on this topic.
436	18.2.1.19	Modelling of the Jubilee River, a surrogate system, has been undertaken to establish the minimum flow with no detrimental impact on water quality. Has monitoring of the Jubilee River been undertaken and can it be included to aid this design to establish what works well and what could have been done differently? Further engagement with the Host Authorities is required on this topic.
437	18.2.1.22	Sediment transport modelling has been completed for the flood channel, to establish long term balance of sediment movement which has been used to establish maintenance. What are the main conclusions? Does the channel become a sediment sink in non-flood conditions?
	General	As modelling has been carried out/is being carried but was not provided with the EIA Scoping Report, further engagement with the Host Authorities is required to determine the suitability of the data and the assessment.
Scoping area / area of assessment		

446	18.3.1.12	Historic modification has been assessed for the lower water bodies. Their impacts on sediment movement and surface water have been noted. Has a more in depth historic modification check been done? Has this been done for all waterbodies?
451	18.3.2.2	It has been noted that new River Basin Management Plan (RBMP) is due to be released. It should be noted, that if the new RBMP is released before the start of the construction works, the WFD assessment should be updated to match the changed objectives and condition classifications.
452	18.3.2.4	Construction works may impact abstraction sites and rates through potential changes to flow and water quality. Any potential changes to abstraction sites and rates will be required to be assessed in the EIA.
453	18.3.3.1	It is noted that multiple licensed abstraction points occur. The ES will need to clearly state these are a limitation as the proposed works will need to ensure flow is still available for them, but that flow may / will change if these licenses are not continued into the future, this should be assessed in the EIA.
Scoped in/out topics		
453	18.4.1.1	It is noted that sheet pile construction could impact groundwater, however sheet piles will also reduce the riparian cover and have a detrimental impact to habitat variation and availability, which would need to also be considered within the Biodiversity chapter of the ES
453	18.4.1.1	It is noted that the impact of using site won material has been highlighted. The proposed scheme passes through landfill and there is a risk this could impact the surface water and groundwater water quality and pollute the water systems.
453	18.4.1.1	Movement of hazardous material has been highlighted to have an adverse impact on the watercourses, however, it is not clear how. Further explanation is required. The assessment should consider impacts to water quality and sediment processes.
454	18.4.1.1	River bed and bank lowering has been highlighted as having an impact. However, reducing bank levels could also impact habitats and impact the sediment processes in the watercourse. Lowering the bed will also impact flow as you are altering the gradient in a least one location. This will impact low flow conditions and sediment processes, this will need to be considered as part of the EIA.
454	18.4.2.1	Mention of adverse impacts to water quality, flow, hydromorphology and biological conditions as a result of the proposed flood channel and operation of flow control features has been highlighted.
455	18.4.2.1	Impact to sediment processes downstream is highlighted as a result of augmented flow, but flow in downstream reaches will also be impacted, therefore habitats could be impacted and should therefore be considered within the EIA.
456	18.4.2.1	Dredging will also impact the sediment processes (transport, deposition and erosion) in downstream reaches, not just water quality. This needs to be considered within the EIA.
458	18.5.2.1	Moving the weir location at Sunbury and Teddington weirs to downstream of the weir pools will mean a change in sediment processes. The upstream weir pool (existing weir pool) will be infilled by deposition

		caused by the weir impoundment, and the downstream section will form a new weir pool. The overall impact is minimal as the sediment processes will eventually change back to existing conditions, but this change needs to be highlighted and should therefore be in Paragraph 18.4.2 effects scoped in. Moving the structure at Molesey will also have an impact on sediment processes.
458	18.5.2.1	Bank erosion protection built in should be green where possible, to ensure riparian cover is continuous and the channel is as 'natural' as possible to minimise net loss of biodiversity and encourage aquatic flora and fauna to become established on the new channel walls
459	18.6.2.1	Installing silt traps, clearly state that this will be at the downstream of all works.
Approach		
483	18.7.4.1	Examples should be given of other topics that will influence the reception and require additional assessment.

### 1.19 Cumulative Effects Assessment

Page	Reference	Comment
General		
484-490	General	The Project Group has no comments to make at this stage of the process on the proposed scope of the cumulative effects assessment (CEA) as set out in Chapter 19 and Appendix L of the EIA Scoping Report. The proposed approach appears consistent with that recommended in Advice Note 17 for NSIPs. The Project Group is content that the schemes listed in Appendix L as major developments for which planning applications has been sought is accurate at this point in time. The Project Group will engage with the Applicant to ensure that the CEA captures all relevant schemes as the project progresses through the DCO process.