River Thames Scheme

Environmental Effects of the River Thames Scheme: Next Steps

Introduction

The River Thames Scheme (RTS) will reduce flood risk and increase resilience to climate change, whilst enhancing biodiversity, supporting nature recovery and increasing access to green open space. It will support economic growth and the health and well-being of local communities.

This consultation is consulting on a scheme that is the result of an extensive period of design development for the RTS. This design development has:

- Enabled us to finalise the routing of the proposed flood channel (with the exception of the routing in and around Ferris Meadow Lake, which is the subject of on-going water quality assessments and an options study, and will include consideration of any feedback received during Statutory Consultation);
- Enabled us to set proposals for the likely locations of the new green open spaces and new blue open spaces and the design concept that will underpin the next stage of designs (e.g. facilitated through a landscape design that includes the 'snaking ramparts' landform);
- Developed our active travel proposals so that the integrated nature of the RTS can be realised, by linking the features within the scheme and also connecting to communities next to it; and
- Determined the location of our priority areas for habitat creation, mitigation and enhancement, including indications of the types of habitats at each location.

Our Design for Statutory Consultation reflects all of the above, but is still at a high level and will be influenced by the feedback we receive at Statutory Consultation and further assessment work.

Further expected design work

The RTS proposals, including its mitigation measures, will be shaped by the following activities taking place before submission of our Development Consent Order ('DCO') application, and informed by Statutory Consultation feedback. These include:

- Finalising the proposed uses of the new green and blue open spaces. As key future assets for the community, it is vital that these are shaped by Statutory Consultation responses. Once finalised, we will be able to develop traffic management measures in more detail as well as measures to manage potential effects on wildlife;
- Identifying the uses of new open spaces, which will help give further definition to the materials requirements for the RTS and from that the construction methodologies required, the expected construction traffic volumes, and the site-specific mitigation measures to be developed;
- Developing construction phasing requirements to inform aspects such as the management of flood risk during construction;
- Developing the next stage of the design of the flood channel and protection measures for the waterbodies it interacts with. For example, we are undertaking detailed water quality and flow modelling, looking into management of Invasive Non-Native Species ('INNS') and aquatic pathogens and the design of marginal and in channel habitats;
- Further work on planting and habitat creation, seeking to achieve the best balance of scheme goals to promote quality habitat, support Local Nature Recovery Strategies and deliver mitigation requirements and Biodiversity Net Gain ('BNG'), as well as reduce anticipated carbon emissions and support recreation and facilitate sustainable travel across the RTS;
- Completing our water quality assessments and options study to confirm our proposals at Ferris Meadow Lake.

Further design of mitigation

The assessment work set out in our Environmental Impact Assessment (EIA) Preliminary Environmental Information Report (PEIR) is reflective of the current status of the RTS. It takes a precautionary approach through the use of parameters; this involves setting maximum reasonable extents on aspects of the project that are currently uncertain. This is a well-established technique that enables an assessment to take place while development of the design continues. Appendix 2.1 of the PEIR explains how the Design for Statutory Consultation corresponds with those parameters.

The PEIR identifies and recognises the types of effects that could arise as a result of the maximum extent of the RTS proposals. It also identifies the types of mitigation measures that will be brought forward to reduce the effects of the RTS, but acknowledges that many require further development as part of on-going design work, and therefore cannot be fully factored in at this stage.

As such, the approach is inherently precautionary, allowing for a reasonable informed view of what the likely significant effects of the RTS could be if mitigation measures were not fully developed, whilst also presenting how these effects will likely be avoided or reduced before DCO application.

Chapter 4 of the PEIR sets out our approach to mitigation which follows the mitigation hierarchy to avoid, reduce or compensate for potential negative likely significant effects. It explains the concepts of primary (embedded) mitigation, tertiary (standard practice) mitigation, and secondary (additional) mitigation. Appendix 4.2 of the PEIR sets out what has been assumed in respect of the implementation of primary and tertiary mitigation measures. Secondary mitigation has not been included in determining the environmental effects of the RTS in the PEIR assessment, but the topic chapters explain some of the secondary mitigation measures that are likely to be developed.

As can be seen from Appendix 4.2 of the PEIR, there are a number of core principles that have already shaped the design to minimise negative environmental effects, but which will also underpin our future work and as such the final 'shape' of their delivery is not yet fully known. These include, for example:

- Applying the sequential approach to manage flood risk through design;
- Following the mitigation hierarchy for habitat and species (e.g. avoiding work in sensitive sites);
- Ensuring there is an integrated landscape design process to ensure all elements of the project are sensitive to the existing landscape and seeking to maximise the positive effects from the scheme;
- Applying the carbon reduction hierarchy to reduce carbon emissions and, where unavoidable, compensate for them through tree planting;
- Provision and management of an augmented flow along the flood channel (in non-flood conditions) to avoid nutrient enrichment of existing lakes and allow for fish passage.

In addition, there are some core standard practices that we know will apply during construction and operation, but the details of which still need to be fully worked through. These include, for example:

- Implementing a Construction Environmental Management Plan (CEMP), to include topic specific management plans covering, for example, the management of invasive non-native species, use of materials, handling of site waste, and the protection of ecology, soils and surface water features;
- Implementing other plans covering the management of air quality and odour, noise and vibration, amenity (working hours, screening etc.), stakeholder engagement, construction traffic and staff travel, and the use of public rights of way;
- Implementing operational management plans such as operational travel plans to manage the movement of staff and visitors to the scheme.

The PEIR topics are clear that with these measures fully in place and the development of secondary mitigation measures, many of the likely negative significant effects currently being reported will be able to be reduced or avoided.

Some of the many examples of this, as described in the PEIR, in practice include:

- The PEIR currently reports that there would be likely significant negative construction effects to the South West London Waterbodies Special Protection Area and Ramsar site. However, further assessment through the Habitats Regulation Assessment (HRA) with a better understanding of the construction methodology and associated management measures will allow us to define additional specific mitigation measures such as seasonal restrictions, buffers or noise barriers. As such, it is highly likely that negative significant effects will be avoided or reduced;
- The PEIR currently reports that there would be likely significant negative construction effects to a number of protected and notable wildlife species. However, further assessment through a detailed Ecological Impact Assessment, a better understanding of the construction methodology and associated management measures and controls established through protected species licensing will allow us to define additional species-specific mitigation measures such as seasonal working, habitat creation, noise barriers or lighting restrictions. As such, it is highly likely that many negative significant effects will be avoided or reduced;
- The PEIR currently reports that there would be temporary negative effects relating to flood risk from construction. Flood risk reduction from all sources is a core project goal, and ongoing assessment and design of the construction stage is being undertaken to ensure any temporary increase in flood risk will be avoided or mitigated. This will be detailed in the Flood Risk Assessment.
- The PEIR currently reports that there would be significant temporary negative effects relating to health from construction. Many of these result from construction related effects that will be controlled by the

suite of management plans listed above (relating to air quality, noise, traffic, water quality etc.). As such, once the construction methodology and associated management measures are better understood, and further specific mitigation measures are confirmed, it is highly likely that negative significant effects will be avoided or reduced.

- The PEIR currently reports likely permanent negative effects to the setting of built heritage Conservation Areas from the creation of new green open spaces. Building on the assessment of historic setting done to date, the next stage will further develop this work, consider the outcomes of the integrated landscape design process, and incorporate ZTV (zone of theoretical visibility) analysis to better define the effects and propose any mitigation to reduce these; and
- The PEIR currently reports likely significant negative construction effects from increased highway traffic congestion and associated delays and risks to amenity and safety. While some effects from construction-related traffic and works to highways will be unavoidable, a wide range of measures will be developed through the Construction Traffic Management Plan, Construction Travel Plan and Construction Logistics Plan to reduce disruption and ensure safety on the local transport network. The PEIR identifies that this will be done, but cannot confirm the full details of these measures until we complete our detailed traffic modelling and transport assessment in liaison with the relevant authorities.

We are taking a comprehensive and evidence-based approach to reducing negative environmental effects relating to both construction and operation of the scheme, through an integrated design process that will include detailed consideration of construction methods and environmental sensitivities. The integrated design approach will enable us to further reduce effects across the full range of EIA topics and deliver a scheme that will provide a wide range of benefits for the environment and communities.

Further engagement

In developing our design and mitigation measures, engagement with Local Planning Authorities ('LPA') and Statutory Environmental Bodies will continue to be vital in ensuring that our proposals are fit for purpose and meet expectations. The RTS is committed to working with stakeholders to ensure that emerging mitigation measures and assessments are shared and discussed.

This will include matters such as:

- The continued development of water environment modelling through the existing Environmental Modelling Steering Group (which includes the project team, the Environment Agency, Thames Water and Affinity Water);
- The continued sharing of our developing Landscape & Green Infrastructure design through stakeholder groups and the LPAs to ensure that it is developed in an integrated fashion, considers interactions with other EIA topics, and delivers benefits to local communities;
- The development of our construction and operational traffic management proposals with Surrey County Council, local planning authorities and other highways authorities, including in respect of the need for and locations of car parking and the development of measures to encourage use of public transport;
- Liaison with statutory undertakers to confirm and plan any utilities diversions required;
- The preparation of navigational risk assessments in liaison with regulators and other river stakeholders;
- The development of scheme specific measures in topics such as:
  - Biodiversity with Natural England, Surrey County Council and Environment Agency as regulators, Surrey Wildlife Trust and other interested parties
  - Cultural heritage with Historic England and County Archaeologists
  - Flood risk with the Environment Agency and Surrey County Council as regulators
  - Water environment with the Environment Agency as regulator and water companies Thames Water and Affinity Water
  - Materials and waste with the Environment Agency and Surrey County Council as regulators

Working with stakeholders in this way is a core part of the project's commitment to avoiding and minimising negative effects, whilst going through the proper process to ensure the detail of the measures to achieve this can be agreed.

The RTS represents a once in a lifetime opportunity to develop a green-blue corridor in and around this part of the River Thames to create healthier, more resilient, and more sustainable communities. We are committed to ensuring that the negative effects of delivering this opportunity are minimised.

Contact

There are lots of ways you can contact us or find out more about the scheme:

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Email: **enquiries@riverthamesscheme.org.uk**

Web: **www.riverthamesscheme.org.uk**

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