
# Preliminary Environmental Information Report

# Volume 2

## Chapter 1: Introduction

# 1 Introduction

## 1.1 Overview

1.1.1.1 Working in Partnership we, the Environment Agency and Surrey County Council, are together delivering the River Thames Scheme (hereafter referred to as 'RTS' or 'the project').

1.1.1.2 The RTS represents a new landscape-based approach to creating healthier, more resilient, and more sustainable communities. The RTS is an integrated project which responds to the challenges of flooding, creates more access to green open spaces and sustainable travel routes, encourages inclusive economic growth, and responds to the dual challenges of climate change and nature recovery (restoring, enhancing, and protecting natural habitats, their plant and animal communities and biodiversity).

1.1.1.3 A major new piece of blue (water-based) and green (land-based) infrastructure, the project is classified further to a direction made by the Secretary of State (SoS) dated 24 December 2020 as an infrastructure project of national significance, and that must be consented by Development Consent Order (DCO) in accordance with the Planning Act 2008 (PA2008).

1.1.1.4 This Preliminary Environmental Information Report (PEIR) follows on from the Environmental Impact Assessment (EIA) Scoping Report that we prepared for the RTS, issued in October 2022, and is based on the EIA Scoping Opinion from the Planning Inspectorate (PINS), on behalf of the Secretary of State, received in November 2022. The PEIR and ongoing EIA is also informed by feedback from extensive previous engagement with designated stakeholders and the public, including the second public consultation on the River Thames Scheme undertaken for six weeks from 8 November 2022 to 20 December 2022 (hereafter referred to as 'the second public consultation').

1.1.1.5 The PEIR documents our preliminary assessment of likely significant environmental effects of the RTS. It provides the information reasonably required for consultees to develop an informed view of the likely significant effects of the project (as understood at this stage of its development). It forms a key consultation tool for the DCO statutory

consultation by providing an update on the ongoing EIA, consultation, and design of the RTS.

## 1.2 Background

1.2.1.1 We are committed to supporting sustainable growth in the area, connecting communities, and creating an environment where people, businesses and wildlife can thrive.

1.2.1.2 The River Thames between Egham and Teddington runs through the largest area of undefended flood plain in England. There is little to no flood resilience in place for this area. In addition to the towns and villages in this area, the landscape has been heavily shaped by major infrastructure and extensive mineral workings. This has resulted in an area in which many homes and businesses are at risk of flooding, within a landscape that suffers from visual barriers and physical constraints preventing open space from being used to its full potential.

1.2.1.3 A major flood would put thousands of homes, businesses, and commercial spaces at risk. It would also cause risk to life and severe disturbance to local communities plus disruption on both nationally and locally significant road and rail routes including sections of the M25 and M4, and the Staines to Windsor and Waterloo to Reading railway lines. Several major drinking water abstractions supplying south-east England, and up to 20 local electricity sub-stations would also be affected by a major flood, resulting in disruption to homes and businesses. With climate change, larger and more frequent floods are likely to be experienced in the future, which will have an even greater impact on communities, infrastructure, and the economy.

1.2.1.4 Plate 1-1 (below) shows the flooding at Runnymede M25 junction 13 during flooding in 2014. The Egham By-Pass is submerged by flood water as is the area around the Runnymede Hotel and fields beyond.

***Plate 1-1: Flooding at Runnymede (M25 junction 13) in 2014***

1.2.1.5 Through extensive studies led by the Environment Agency, we have concluded that the preferred approach to flood risk management in the Lower Thames Area is to improve conveyance and reduce flood risk through construction of a flood relief channel, plus other capacity improvements in the River Thames downstream of the new flood relief channel. These studies are documented in the Lower Thames Flood Risk Management Strategy (LTFRMS) (Environment Agency, 2009), and this has led to the evolution of the RTS.

1.2.1.6 The RTS will reduce flood risk from main rivers in areas of the River Thames floodplain between Datchet and Teddington, particularly in the areas between Hythe End and Shepperton and the settlements of Staines, Egham Hythe, Chertsey, Laleham and Shepperton. The project will reduce the risk of flooding to approximately 11,000 homes, 1,600 businesses, plus existing nationally significant infrastructure including highways, railways, and utilities, as well as heritage and ecological sites.

1.2.1.7 The flood relief channel will work most effectively in moderately sized floods like the 1 in 20 annual chance flood, similar to the 2003 and 2014 floods. These are the conditions where the channel will give the greatest reductions in flood levels. The area around Penton Hook at the upstream end of the Runnymede channel will have the greatest reduction in water levels (of between 0.4m to 0.9m reduction in levels depending on the size of the flood). Information on the background, development, testing, and

confidence in our modelling of river flooding is presented in our Flood Modelling Report Non-Technical Summary (WBi, 2023).

1.2.1.8 We are continuing to work on the landscape and green infrastructure design of the RTS. The aim of this design, once constructed, is to further enhance the health of communities, and encourage sustainable growth through the provision of improved access to green and blue open spaces and an improved active travel network. It will also provide new and enhanced areas for wildlife.

## 1.3 RTS Vision

1.3.1.1 The RTS project vision is “to reduce flood risk to people living and working near the River Thames, enhance the resilience of nationally important infrastructure, contribute to a vibrant local economy and maximise the social and environmental value of the River Thames”. To achieve the project vision, we have identified the following goals:

- Reduce flood risk to dwellings, businesses, and infrastructure;
- Provide better access to green open spaces, connection with wildlife and more sustainable travel network;
- Create a network of high-quality habitat and achieve biodiversity net gain;
- Facilitate sustainable and inclusive economic growth; and
- Enable delivery and design that contributes to the achievement of Environment Agency, Surrey County Council and Partner climate goals relating to carbon use.

## 1.4 Overview of the Project

1.4.1.1 A major new piece of blue and green infrastructure, each part of the RTS will work together to deliver benefits for communities. A new flood channel will reduce the risk of flooding to homes, businesses, and infrastructure, while also providing habitat for wildlife and a new feature in the landscape. Areas of publicly accessible green and blue open space next to the flood channel are under consideration for recreation and connecting with nature. New or improved active travel provision will run along the flood channel corridor and areas of enhanced public connection will link the project with communities and provide better connections across the area.

Improved habitat will connect with existing wildlife sites and corridors to provide a new nature recovery network.

1.4.1.2 The RTS will significantly reduce flood risk from main rivers in the areas between Hythe End and Shepperton and the settlements of Staines, Egham Hythe, Chertsey, Laleham and Shepperton. Flood risk will also be reduced in all areas of the fluvial River Thames between Shepperton and Teddington. Furthermore, many properties in the River Thames floodplain in the Royal Borough of Windsor and Maidenhead (RBWM) will have a small reduction in flood risk from the channel sections constructed in Surrey as the benefits extend some way upstream. The RTS will reduce the risk of flooding to approximately 11,000 homes, 1,600 businesses and reduce the risk to existing nationally significant infrastructure, including highways, railways and utilities, as well as heritage and ecological sites.

1.4.1.3 As with all flood alleviation schemes, the risk of flooding is not removed but it is reduced to levels which make communities more resilient for the future. For the RTS the amount of change to the standard of flood protection as a result of the project will vary depending on where you are located within the floodplain. With climate change the background level of flood risk will increase. The RTS will continue to reduce risk throughout its operation, albeit against a changing background of flood risk in the area as a result of climate change.

1.4.1.4 For the PEIR, the area within the project boundary is the pink shaded area shown in Plate 1-2 which includes a large corridor of land south of the River Thames and north of the M3 between Thorpe and Chertsey, and north of the River Thames between Chertsey and Shepperton; as well as separate areas around Sunbury, Molesey and Teddington weirs, plus land south of Island Barn Reservoir and south of Virginia Water. Certain aspects of the RTS design are shown and labelled on Plate 1-2, including the Runnymede Channel (shaded in purple), the Spelthorne Channel (shaded in orange), a section of the River Thames where bed lowering is planned, and Sunbury Weir, Molesey Weir and Teddington Weir where flow capacity improvements are proposed. Landscape and green infrastructure opportunities are proposed across many parts of the pink shaded area within the project boundary for EIA PEIR. The project boundary will be reviewed as the design and EIA progress.

1.4.1.5 An overview of the main features of the RTS, including the project boundary for the EIA PEIR, are shown in Figure 2.1. A full description of the project is provided in Chapter 2 (Project Description).

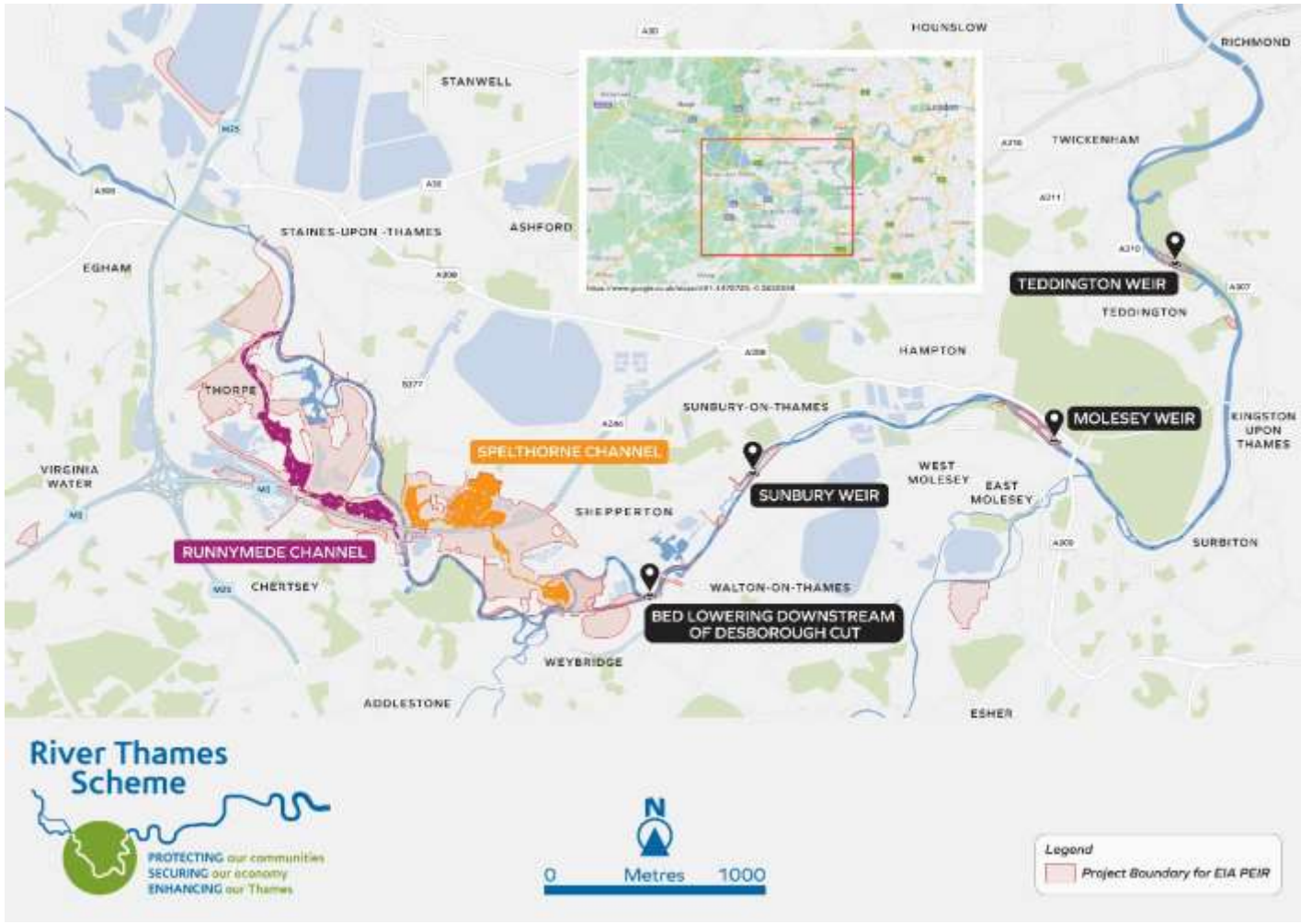



***Plate 1-2: Overview of the RTS***

## 1.5 Purpose of the PEIR

1.5.1.1 The PEIR follows on from the EIA Scoping Report, issued in October 2022, and is based on the EIA Scoping Opinion from PINS, on behalf of the SoS, received in November 2022. The PEIR and ongoing EIA is also informed by feedback from extensive previous engagement with designated stakeholders and the public, including the second public consultation.

1.5.1.2 The PEIR has been produced to support the statutory consultation process under PA2008 to comply with Regulation 12 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

1.5.1.3 In this regulation, preliminary environmental information is defined as:

"*information referred to in regulation 14(2) which:*

*(a) has been compiled by the applicant; and*
*(b) is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development)*".

1.5.1.4 The PEIR has been prepared in accordance with PINS (2020) Advice Note Seven: *Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements.*

1.5.1.5 The PEIR documents our preliminary assessment of likely significant environmental effects of the RTS. Effects reported within this PEIR are considered a 'worst case' as a precautionary approach has been taken in instances where design, construction or baseline information is incomplete, for example, if further surveys are required. The detailed process that we have used to inform the production of the PEIR is explained in Chapter 4 (Approach to the Environmental Assessment).

1.5.1.6 The PEIR forms a key consultation tool for the DCO statutory consultation by providing an update on the ongoing EIA, consultation, and design of the RTS. Feedback from statutory consultation will be used to further develop the project design and produce the Environmental Statement (ES), which will form part of the DCO Application.

1.5.1.7 It should be noted that there is a clear separation of responsibilities and an information barrier in place between the officers advising and

promoting the RTS on behalf of the applicant and the officers who will perform a regulatory function within Surrey County Council and the Environment Agency as part of the PA2008 process and in performing duties under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

## 1.6 Structure of the PEIR

1.6.1.1 The PEIR is presented in four volumes:

**Volume 1 – Non-Technical Summary**

1.6.1.2 The Non-Technical Summary provides a summary of the PEIR findings in non-technical language.

**Volume 2 – The PEIR**

1.6.1.3 Volume 2 contains the findings of the PEIR in full and is structured as follows:

- Chapter 1 (Introduction);
- Chapter 2 (Project Description);
- Chapter 3 (Consideration of Alternatives); and
- Chapter 4 (Approach to the Environmental Assessment).

1.6.1.4 Together Chapters 1 to 4 introduce the project, describe the details of the project, explain the alternatives to the project that have been considered, and the approach taken to the environmental assessment.

- Chapter 5 (Site Description): provides a summary of the baseline for each environmental topic chapter;
- Chapters 6 to 18 (environmental topic assessments): present a preliminary assessment of the likely significant environmental effects of the project in relation to specific environmental topics. The 13 topics included are: Air Quality; Biodiversity; Climatic Factors; Cultural Heritage, Archaeology and Built Heritage; Flood Risk; Health; Landscape and Visual Amenity; Materials and Waste; Noise and Vibration; Socio Economics; Soils and Land; Traffic and Transport; and Water Environment;
- Chapter 19 (Cumulative Effects Assessment): considers the potential inter-project (the project interacting with other developments) and

intra-project (effects occurring between the different topics as a result of the project) cumulative effects;

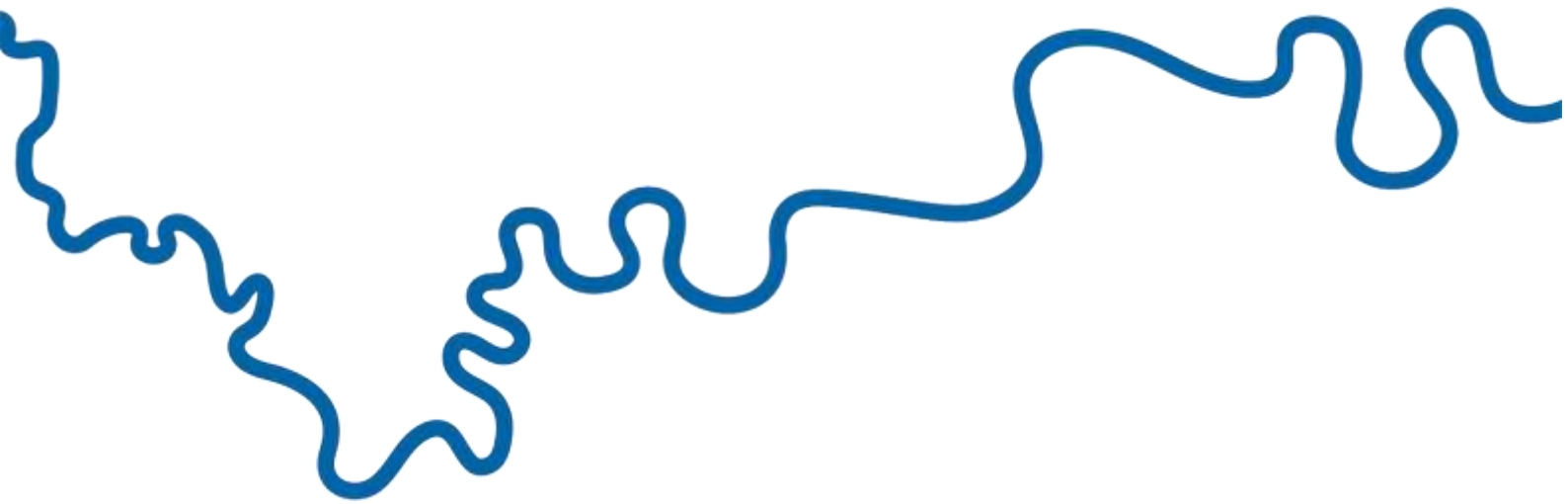
- Chapter 20 (Stakeholder Engagement): provides an overview of engagement planning, the breadth of past stakeholder engagement, how engagement has informed the project design and EIA scoping and proposed future engagement activities;
- Chapter 21 (Next Steps): outlines the remainder of the EIA process;
- Chapter 22 (References): a full reference list for the PEIR;
- Chapter 23 (Abbreviations): a schedule of abbreviations used in the PEIR; and
- Chapter 24 (Glossary): an explanation of terms used in the PEIR to aid reader comprehension.

**Volume 3 – Figures**

1.6.1.5 Volume 3 contains figures that support Volume 2.

**Volume 4 – Appendices**

1.6.1.6 Volume 4 contains technical appendices that support Volume 2.



SURREY COUNTY COUNCIL

Environment Agency

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

River Thames
Scheme