What is the difference between River Thames Scheme, Thames Estuary 2100 and West London Communities?

The Environment Agency and Surrey County Council are jointly delivering the River Thames Scheme (RTS) which focuses exclusively on fluvial flood risk upstream of Teddington Weir. The Thames Estuary 2100 Plan focuses primarily on tidal flood risk downstream of Teddington. There is a group of West London communities that will be impacted by the changes to Thames Barrier closures from 2035 onwards and for these communities the Environment Agency (EA) has established a separate project to investigate and deliver flood risk management measures to mitigate the change in risk. The Environment Agency is delivering the ‘West London Communities’ project as part of the Thames Estuary 2100 Plan.

**Where is the River Thames tidal limit and Thames Estuary 2100 boundary?**

While water levels in the Thames upstream of Teddington are sometimes impacted by tides, the boundary of tidally dominated flood risk ends at Teddington Weir. The Thames Barrier and associated defences were designed to protect property and infrastructure up to Teddington Weir, there are no formal tidal defences upstream of this location. The Thames Estuary 2100 Plan is currently under review, but the boundary is not due for revision under the current update process, the geographic extents will remain the same.

**Why do we need to wait for modelling to start considering mitigation options?**

To deliver capital projects which benefit from central government funding, the Environment Agency must demonstrate we are providing good value for money for taxpayers. Treasury approved appraisal methods require evidence-based options presented in business cases. Flood risk modelling provides an essential part of this evidence base, to demonstrate the positive impact the flood risk project will have for residential properties, businesses and infrastructure. We will use the River Thames Scheme modelling to show the extent and severity of risk to West London Communities, which is why we have been waiting until this work is complete. It will take a bit longer once the modelling is available as we will need to adapt it for the purposes required by the West London Communities project.

**Why will Thames Barrier operation change in 2035?**

The original intended purpose of the Thames Barrier was to manage the tidal flood risk upstream of the barrier to Teddington Weir. Over the last few decades, the original remit has expanded to manage fluvial flooding to areas further upstream of Teddington Weir. This means the barrier now closes more frequently than it would under the original operating procedures. If this elevated operation continues, then the barrier will not be able to fulfil its original intended purpose with the required level of reliability, for the duration of its lifespan to 2070.

How did the Environment Agency decide on the maximum 50 closures per year on average of the Thames Barrier?

During the development of the Thames Estuary 2100 Plan, we determined the maximum number of closures to be 50 per year on average before maintenance would be significantly affected, thereby reducing the reliability of the barrier. This number was determined using expert input from the Thames Barrier Operations and Maintenance teams in conjunction with a series of statistical and reliability studies, which were carried out by external expert engineering consultants between 2003 and 2009.

**How will the new flood risk management measures in the West London Communities project get funded?**

Flood and Coastal Erosion Risk Management (FCERM) schemes in England operate under funding rules which are approved by the Treasury. Schemes are delivered by the Environment Agency and Lead Local Flood Authorities, using central government funds which are administered by Defra. The [Partnership Funding](https://www.gov.uk/guidance/partnership-funding-for-fcerm-projects) regulations set out a common framework for determining the costs and benefits associated with FCERM schemes which indicate the amount of FCERM ‘Grant in Aid’ that a project can claim from central government. Most FCERM projects are not fully funded through FCERM Grant in Aid and must find additional funding from other sources. One of the most common sources is Local Levy, which is allocated by the Regional Flood and Coastal Committees. Other sources will also be required and could include private individuals, local enterprise partnerships, private business and local authorities.

There is potential that between now and the time when the financial case for the project is being finalised, the government’s funding rules may have changed slightly. There may also be new or different grants or funding available as these are often subject to change, as seen with ‘build back better’ and green funds following the pandemic.

**How will climate change affect our flood risk?**

A changing climate is projected to further increase the extremes in the weather we experience in the UK, with a tendency towards warmer, wetter winters and hotter, drier summers. The latest climate change projections for the UK, known as UKCP18, published by the Met Office have been used by the Centre for Ecology and Hydrology to produce a set of peak river flow allowances under climate change scenarios for all the major river catchments across the UK. Please see the [climate change allowance pages](https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#peak-river-flow-allowances) on the gov.uk website for further information.

**Will the Thames Barrier still close for extreme fluvial events?**

Closure decisions are made by forecasting the combined effects of fluvial flows and the incoming tide height. Extremely high fluvial flows are still liable to trigger Thames Barrier closures after the changes in 2035. However, some lower magnitude events which currently lead to barrier closure will no longer cause those trigger levels to be met.

There are currently some forecast locations upstream of Teddington which are used to inform Thames Barrier closures; these locations will not be used following the change in operating rules.

**How often will the Environment Agency contact us with updates?**

We will continue to post significant project updates to this webpage and will carry out formal engagement events at key project milestones. In the meantime, you are welcome to contact us using the Thames Estuary 2100 mailbox: Thamesestuary2100@environment-agency.gov.uk.

**How long will the project take?**

As we have explained elsewhere, flood risk management projects must be delivered in line with Treasury approved appraisal procedures. This project will have to deliver a Strategic Outline Case (SOC), Outline Business Case (OBC) and Final Business Case (FBC). Both the SOC and OBC will require flood risk modelling and thorough engagement which can take time, so we are currently predicting 6 years to get to the end of OBC (2029). Following these appraisal stages, providing there is a leading option which is cost beneficial, the FBC will be completed, and a contractor appointed through a tender process. We are currently estimating a further 3 years to complete the FBC, mobilise to site and complete construction which would mean this project would be finished by 2033. In early project stages there is a high amount of uncertainty and change giving the potential for any number of the estimated delivery dates set out here to change over the coming years.