

River Thames Scheme A Summary

Background

The River Thames scheme is a proposal to reduce flood risk in communities along the river between Datchet and Teddington, including:

- Datchet
- Wraysbury
- Egham
- Staines
- Chertsey
- Shepperton
- Sunbury
- Kingston
- Teddington

The River Thames between Datchet and Teddington has the largest area of developed floodplain in England without flood defences, with over 15,000 homes and businesses within the area at risk from flooding from a 1 in 100 flood (ie a flood with a 1% chance of occurring in any one year).

Major flooding would cause severe disruption to the road network, suspension of several major drinking water abstractions supplying the south-east and threaten up to 20 electricity sub-stations.

The Environment Agency has calculated that damages from a major flood could exceed £850 million. It is predicted that the effects of climate change will double flood damages in a 1 in 200 year (0.5% chance of occurring in any year) flood from the current level of £850million to some £2 billion by 2055, with the number of properties at flood risk reaching 35,000.

Many of the communities in this area have been affected by several major floods, with a notable flood in 1947, which was approximately a 1 in 50 flood (2.0% chance of occurring in any year). A further large flood occurred in 1968 and more recently in 2003, when approximately 256 properties were affected. In early 2014, many communities again experienced prolonged and widespread flooding from the River Thames.

The River Thames scheme

The River Thames scheme will meet the recommendations set out in the Lower Thames flood risk management strategy finalised in 2009 after consultation with other public bodies, businesses and residents, and published in November 2010.

The scheme consists of a new flood channel, improvements to 3 of the existing Thames weirs, installation of property level products for up to 1,200 homes (to make them more resistant to floods) and improved flood incident response plans. The flood channel will be between 30 and 60 metres wide and 17 kilometres long, built in 3 sections.

The proposed scheme will protect 9,500 properties to a 1 in 75 flood (1.33% chance of occurring in any year). In total around 15,000 properties, local infrastructure (eg roads, sewerage network) and many businesses will be better protected from flooding.

All communities between Datchet and Teddington will benefit from the scheme. This includes the communities downstream of the flood channel, as modifications to the weir will also reduce water levels between Walton Bridge and Teddington.

Flood risk cannot be eliminated completely, therefore some homes benefiting from the scheme are also being offered property level products to make their property resistant to flooding.

The Environment Agency is working on the scheme with 7 local authorities and the partnership's vision is 'protecting our communities; securing our economy; enhancing our Thames'.

What the scheme involves

Subject to funding, the scheme will be carried out in 2 phases. Phase 1 includes:

- developing a funding strategy for the scheme
- a hydrology and modelling study
- ecological surveys of the River Thames and specific sites
- installation of property level products in some homes
- major incident planning to improve preparedness and response to flooding
- increasing the flow capacity of Sunbury, Molesey and Teddington weirs
- obtaining planning consents for the enabling works on the weirs
- securing government assurance and approvals

Phase 2 includes:

- detailed design of the scheme
- securing full, detailed planning permission and other consents for the work
- building all 3 sections of the flood channel and associated structures, and increasing the capacity of Desborough Cut

Timescales

The Environment Agency will be appointing consultants in summer 2014 to work with the partnership on the outline design of the flood channel and capacity improvements, and produce environmental assessments. This stage will take approximately 3 years and enable the flood channel to be submitted for planning consents and authorisations.

Subject to funding, construction work could begin as early as summer 2016 on the modifications to the first Thames weir. Construction of the flood channel is expected to start in 2020 and take approximately 5 years to complete.

Partners

Working in partnership is important to the success of the River Thames scheme. Partners include:

- Environment Agency
- Elmbridge Borough Council
- Royal Borough of Kingston upon Thames
- London Borough of Richmond upon Thames

- Runnymede Borough Council
- Spelthorne Borough Council
- Surrey County Council
- Royal Borough of Windsor and Maidenhead
- Department for Environment Food and Rural Affairs (Defra)

Cost

The estimated cost of the proposed scheme is £256 million (present value cost at 2009 prices). It is expected to qualify for a central government grant of £136 million, and the remaining funding of approximately £120 million needs to be secured from other sources, including local enterprise partnerships and businesses.

The Thames Regional Flood and Coastal Committee is currently funding the development stages of the scheme.

Progress

The 3-year programme of ecological surveys began in April 2012. Their findings will be used in the outline designs of the flood channel and support the environmental impact assessments.

Local authority emergency planners, the Environment Agency and the emergency services are working together to prepare a major incident plan for flooding. This plan will improve the emergency response to flooding from the Thames in these communities, based upon the experiences of 2003, 2012 and 2014.

Property level products (eg door barriers, non-return valves and airbrick covers) are being offered to residents along the Datchet to Teddington stretch of the River Thames, who will remain at significant risk (at a 1 in 40, or 2.5% chance of flooding in any given year) after the flood scheme is complete. The Environment Agency has carried out some property surveys at properties where home owners have already expressed an interest in the products.

For further information or to get involved in community discussions, please email rts@environment-agency.gov.uk.