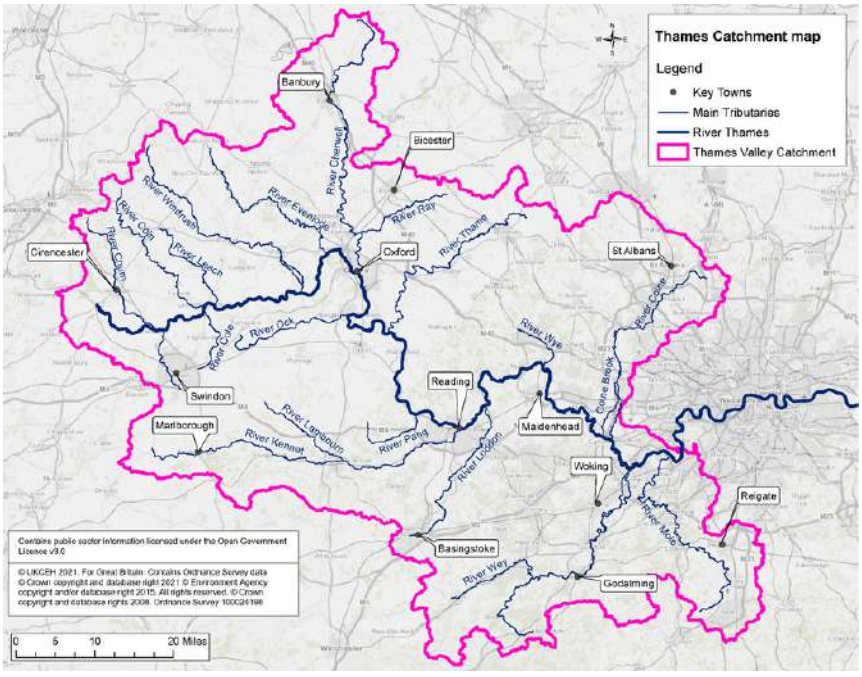
Thames Valley Flood Scheme

June 2023 project update

In this issue

The Thames Valley Flood Scheme is investigating ways to manage flood risk on a large scale across the Thames Valley. It aims to reduce flood risk and build climate resilience for communities, businesses and infrastructure. We aim to work in partnership to deliver a wide range of environmental and other benefits, supporting people and wildlife in the Thames Valley to thrive throughout the rest of this century and beyond. The project remains in its early stages, and will need to pass approvals and gain further funding to continue to progress.



Catchment map of the Thames Valley Flood Scheme area

Protecting and enhancing the Thames Valley

Environment Agency

Welcome

A catchment based approach

Welcome to the Thames Valley Flood Scheme newsletter

I would like to welcome both new and existing readers to our summer newsletter for the Thames Valley Flood Scheme.

In our last edition we promised that we would bring you an update on what we have been doing to consider the role that natural flood management can play in the scheme. You will find much of this newsletter is dedicated to that, but first I felt it worthwhile to give a general update on the project, especially for those of you who may be reading about the scheme for the first time.

Through our recent assessments, we found floodwater storage to be the only approach that would work on its own to achieve the large scale flood risk benefits required for the scheme. We will continue to identify opportunities for natural flood management to play an important part.

In this newsletter you will see how we are showcasing the strengths and acknowledging the challenges of including natural flood management in the Thames Valley. We are working with specialists to look at how, where, and when natural flood management approaches may be applicable.

Finally, as we move into the summer months our water environment becomes more prominent as an amenity for leisure, exercise, and other recreational activities.

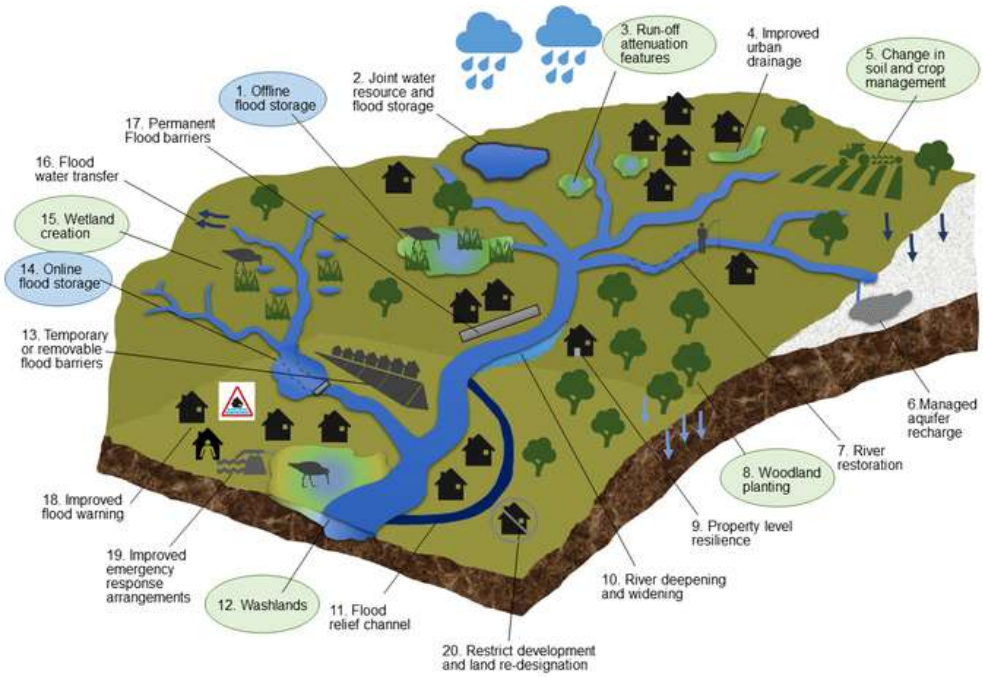
I hope you get the chance to spend some time outside and to enjoy nature this summer, to appreciate our beautiful environment and all it can offer.

Please read on to learn more about the project's progress, of which I am extremely proud. Our team continues to approach reducing flood risk in a progressive way, prioritising both people and the environment.

Joe Cuthbertson
Project Director

Scheme progress

As you may have read in our last newsletter, we identified that flood storage, circled in blue, will be a key part of the scheme. Natural flood management options, circled in green, could complement flood storage. If you would like to find out more about flood storage, you can find it in our March newsletter. For this edition, we are sharing the scheme's next steps for natural flood management and in-combination approaches.



Natural flood management

Our project team has been working to consider different approaches to incorporate natural flood management into the Thames Valley Flood Scheme. There are numerous benefits of natural flood management, but our work shows it is not possible for natural flood management on its own to reduce flood risk sufficiently to meet the flood risk objectives of the project. However, it could deliver supplementary flood risk and environmental benefits. We are assessing how the use of natural flood management can be maximised in combination with flood storage as part of the Thames Valley Flood Scheme and how we can work with potential partners to secure the most benefit from these features.

Our next steps will be to consider the viable options in terms of impacts on river flooding, cultural value, water quality and habitat. If you would like to find out more about our work on natural flood management, please view our natural flood management paper on our website.

Would Thames Valley Flood Scheme work without flood storage?

We are reviewing the potential for in-combination approaches to form a part of the Thames Valley Flood Scheme. We are considering whether any combination of the 20 approaches, shown on the diagram on page 3, could reduce flood risk at a large scale throughout the Thames Valley. Our review shows that flood storage needs to be included in any combination to meet the flood risk benefits and aspirations of the project. By combining other approaches without including flood storage, our findings show that it will not be possible to meet these objectives.

We hope to be able to bring you a further update on this in our next newsletter.

What is natural flood management?

Wetland area in the River Evenlode catchment

Natural flood management techniques work with nature to restore or mimic the natural functions of rivers, floodplains and the wider river catchment. In the right circumstances, they can be a sustainable and effective way of reducing flood risk.

Some of the options that we are investigating include wetland creation, woodland planting and changes in soil and crop management.

Woodland planting can help reduce flood risk through increasing the amount of water that can be stored in soil and trees. Trees along riverbanks can help slow the flow during heavy rainfall.

Wetland creation allows storage for floodwater while providing wider habitat and biodiversity benefits.

Changes in soil and crop management can slow and store water to reduce flood risk, along with opportunity for agricultural benefits for the farming community.

Photo: Team visit to Evenlode Catchment

Site visit

We recently met with partner organisations to build on knowledge of natural flood management across the project team. We visited two natural flood management projects in the River Evenlode catchment, which flows into the Thames.

We first visited the Littlestock Brook natural flood management trial, which utilises a combination of different techniques. Woodland planting, small embankments, and wetland areas are used together to reduce the severity of flooding to houses downstream. You can see an example of a wetland area in the photo to the left. The work also improves water quality, provides habitats for wildlife, and helps capture carbon. The trial was delivered by the **Evenlode Catchment Partnership**, headed by **Wild Oxfordshire**, working closely with local landowners and the community.

Further downstream, near Woodstock, our team was able to see a different type of natural flood management, called Stage Zero restoration. The aim of Stage Zero restoration is to work with natural processes to rehabilitate valley floors and floodplains to conditions similar to how they would have been before major human intervention. To do this the river channel is blocked or banks lowered to push water out into the surrounding low-lying fields. The water then makes its way across the land and over time forms a series of streams. This slows the flow of water which can help to reduce flood risk, improve water quality, and protect against drought.

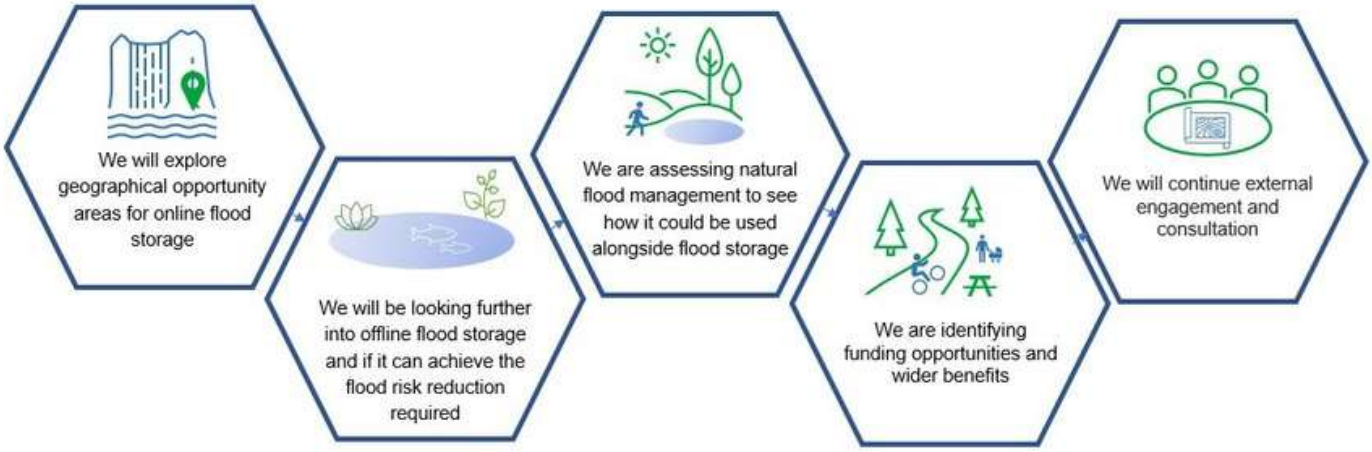
The site visit gave us plenty of food for thought on how we can work with others to look at natural flood management as part of Thames Valley Flood Scheme. We look forward to considering this in our next steps.

Banbury flood storage area

Banbury Flood Storage Area left to right: A sloping embankment made with local materials, a flow control structure, shrubs, trees and long grass within the storage area, close up of wildflowers, common vetch, clover and buttercups.

As we mentioned at the start of the newsletter, a large part of the Thames Valley Flood Scheme is likely to be flood storage. The photos you can see here of Banbury Flood Storage Area show an example of what a flood storage area can look like when not holding water back. Banbury lies on the River Cherwell, a tributary of the River Thames, and the flood storage area reduces flood risk to 441 homes and 73 businesses in Banbury. In total we created 12 hectares of new valuable habitat, including wetland areas, ponds and wildflower meadows. The flood storage area has since been in use and has stored water to protect communities from flooding. This is an example of how flood storage has been combined with environmental improvements, which is something we are looking to do more of through the Thames Valley Flood Scheme.

Our next steps



Contact the team

There are many ways you can stay up to date with the Thames Valley Flood Scheme or contact the team to ask questions or provide comments

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