

# Jubilee River, Black Potts weir repairs update

May 2021

The Jubilee River is part of the Maidenhead Windsor and Eton Flood Alleviation Scheme (MWEFAS) and is a man-made 11.6 km stretch of naturalistic river and habitats, reducing the flood risk to approximately 3,000 properties.

Black Potts Weir is the final weir on the Jubilee River. The weir slows down water as it moves over it so that we can reduce flood risk and manage river levels.

We began repairs to the weir at Black Potts in October 2020 following a dive survey that found the downstream area of the weir had been eroded. Since December 2020 we have been able to safely operate the Jubilee River again and continue with the next stage of the repair work.



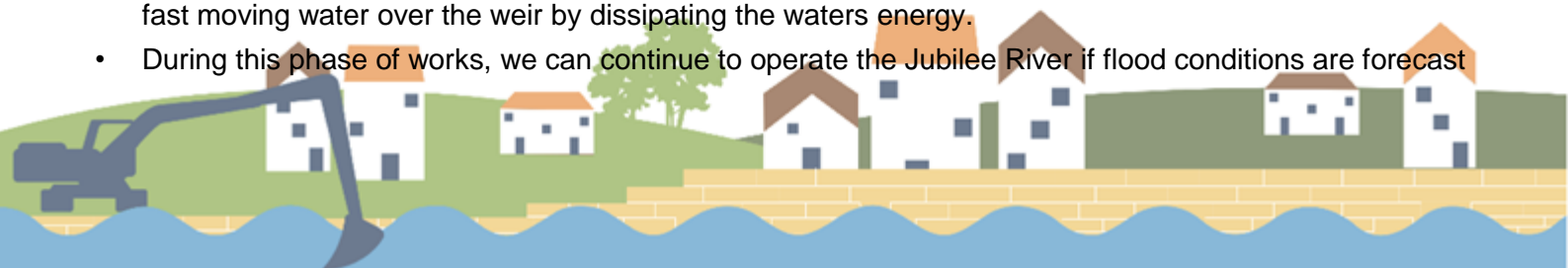
## Progress update

- We have continued to refine the detailed design for the repair works following updated hydraulic modelling and assessment of the riverbed
- In the first phase of the repair works between October and December 2020 we cut and removed the downstream end of the old weir apron (the area that protects the weir and river bed from erosion) and placed new sheet piling.
- We have created a connection between the existing weir structure and the newly installed sheet piles, essentially stitching them together.
- We are working in sections of the weir, and have started with the east and middle sections adjacent to the fish pass. This means that the fish pass is now available again for fish migration. Works to the western section of the weir will follow.
- We have built a cofferdam incorporating stop logs on both upstream and downstream sides of the weir. The cofferdam allows us to de-water and dam the work area so that we can construct the new reinforced apron. If flood conditions are forecast the cofferdam would be removed to enable us to use the Jubilee River.
- We have cast a blinding, or base layer, of concrete and installed steel reinforcing mesh cages that have been tied into the existing apron
- We then cast high strength concrete to form the new completed weir apron slab. Each section is made watertight with mastic sealant between the slabs.

**To help explain this work in more detail we have included photos at the end of this update.**

## Next steps

- Once the apron is complete we will begin laying rock armour.
- Prior to installing the rock armour we will excavate the river bed to make room for 2 layers of rock and to provide a connection into the existing bed.
- The rock armour consists of large boulders that naturally interlock together. This controls erosion from fast moving water over the weir by dissipating the waters energy.
- During this phase of works, we can continue to operate the Jubilee River if flood conditions are forecast



- There are now more leisure users on the River Thames. We have regular boat movements between the construction compound and the weir. We have communicated with river user groups to ensure everyone can avoid risks to boaters or our contractors during the work. Signs have been put up at nearby locks to advise boaters to take care.

## Timescales

In our last update in February we explained that the timescales for the construction programme will be extended.

- We estimate that the work will now be completed in Autumn 2021. Although this is longer than originally forecast, by the end of the work we will have completed repairs that will last for between 60 and 100 years meaning that the Jubilee River will continue to reduce the risk of flooding for the local community well into the future.
- Timescales have been subject to external influences. High river levels and fast flowing water in the River Thames in January and February meant that work paused on site to allow us to operate the Jubilee River to reduce the risk of flooding to local communities. More recently work paused for the national mourning period for HRH the Duke of Edinburgh. We must also temporarily cease work to accommodate the Royal Windsor Horse Show in July.

## Manor Farm weir

We have a unique opportunity whilst we are on site with operatives and equipment to carry out any other remedial work needed for other structures on the Jubilee River. We want to use our resources efficiently.

- At Manor Farm weir we are planning to carry out minor repairs to the upstream side that have occurred due to water scour. The scour was discovered during our programme of regular dive surveys.
- Manor Farm weir is 3 weirs up from the bottom of the Jubilee River and is close to Eton Wick.
- Carrying out repairs for this minor wear and tear now will ensure that major repairs are avoided in the future.
- Work is likely to start in July and last for 1 month
- Work at Manor Farm weir will not affect our ability operate the Jubilee River if required.



Our dive surveys have shown that other weirs on the Jubilee River are in good condition

## Continued protection from flooding

- We continue to carefully manage flows between the main River Thames and operate the Jubilee River if required.
- Should flood conditions be forecast we will pause the repair works and remove plant machinery and staff to ensure their safety before any operation of the Jubilee River.
- We will continue to operate the other elements of the Maidenhead, Windsor & Eton Flood Alleviation Scheme (MWEFAS), such as the existing flood gates and supporting pump plan that reduces flood risk to Cookham and north Maidenhead.
- We constantly monitor rainfall and river levels. The River Thames needs long and continuous days of rain to flood, providing us with ample time to prepare for any high flows.





- We maintain regular contact with local authorities and the emergency services through the Local Resilience Forum, in order to manage the situation should it worsen and to ensure we have support for communities if required.
- We have a bespoke flood warning and alert system for residents around the Jubilee River should flooding be expected.

## Stay up to date with latest situation

- Follow us on Twitter @EnvAgencySE
- If you live near the Jubilee River, [sign up to Flood Alerts and Flood Warnings](#) or call Floodline on 0345 988 1188 or Download the free Flood Alert App
- Stay tuned to local news and social media channels
- See which warnings are in force please visit our <https://flood-warning-information.service.gov.uk/warnings>

## Further information

Follow us on Twitter [@EnvAgencySE](#) or [@MariaHerlihyEA](#) or email [enquiries\\_THM@environment-agency.gov.uk](mailto:enquiries_THM@environment-agency.gov.uk)



Feb 21: Unable to work on site due to high river levels



Feb 21: Site compound



Feb 21: Preparing stop logs whilst we were unable to work in the water during high flows



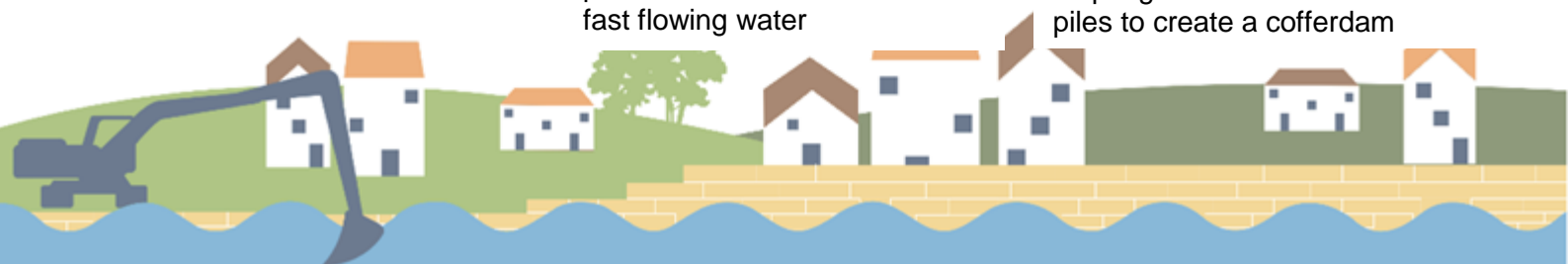
Feb 21: Installing piles for stop logs to slot into



Feb 21: Excavating the weir apron. The apron provides protection from the effects of fast flowing water



March 21: Pumping out the working area. Note wooden stop logs inserted between piles to create a cofferdam







March 2021: Drainage base layer being installed



March 2021: Placing blinding layer. This is a base layer of concrete



March 2021: Completed blinding



March 2021: Section of base showing the steel wire reinforcement.



April 2021: Casting high density concrete



April 2021: Completed section of weir apron



Rock armour waiting to be placed following completion of weir apron

