

Natural flood management work resumes to increase flood resilience in Leeds

Natural flood management work to increase flood resilience across the Aire catchment in Leeds continues as the next tree planting season is set to begin.

The Environment Agency, working alongside Leeds City Council and other partners, will be implementing a range of nature-based solutions across the Upper Aire catchment to reduce flood risk in the area as part of the Leeds Flood Alleviation Scheme's Natural Flood Management project. Natural flood management can help to reduce flood risk by mimicking natural processes and slowing the flow of water.

At the end of the last planting season, £3.7m had been invested in the scheme so far with a further £1.1m forecast for this year.

Two major interventions for the project are soil aeration and tree planting, delivered by landowners and strategic partners on behalf of the Environment Agency, and the White Rose Forest respectively.

Soil aeration helps increase the storage capacity of water in the ground by using a machine to poke holes into compacted soil and allow air, water and nutrients to penetrate through. This reduces surface water run-off that could contribute to peak flows in rivers and their connected streams, therefore reducing flood risk. This technique is also beneficial as it makes soil rich and fertile for growing crops.

So far 288 hectares of soil aeration has been successfully carried out, with a further 218 hectares currently being delivered, or in the pipeline.

Meanwhile, over 410,000 trees have been planted in the catchment and, as the next tree planting season begins, the Environment Agency and partners have set an ambitious target of over 100,000 trees to be planted between October 2022 and March 2023. This equates to approximately 55 hectares or 77 football pitches.

Jenny Longley, Area flood risk manager at the Environment Agency, said:

The Environment Agency is committed to providing the highest protection against flooding in Leeds.

Alongside our traditional flood defences, nature-based solutions can reduce flood risks and have a range of positive benefits for the city such as increased biodiversity, and improved habitat and water quality.

We're excited to be working with our partners to deliver this work as part of the Leeds scheme, which will ensure the area is more

resilient to the impacts of climate change.

Councillor Helen Hayden, Leeds City Council's executive member for infrastructure and climate, said:

Increasing the flood resilience of Leeds is an important part of our response to the climate emergency.

When complete in 2023, the engineering works on Leeds FAS2 will provide significant flood protection to thousands of residents and hundreds of businesses in Leeds. These sustainable, nature-based solutions will complement our engineered defences, and ensure that the FAS2 scheme is even more resilient to the effects of climate change.

We are proud to be working with the Environment Agency on a natural flood management scheme of this scale and delighted that we are on track to have planted over half a million trees by March 2023, as well as completing vast areas of soil aeration and other Natural Flood Management techniques.

This work allows us to slow the flow of water and considerably reduce flood risk, and also capture huge amounts of carbon, create a range of habitats for wildlife, increase the efficiency of farmland in our region, and create areas of natural beauty for residents to enjoy for generations to come.

Other natural flood risk measures are also being delivered through an innovative platform known as NatureBid. The NatureBid project is an auction that provides the opportunity for landowners and farmers to bid for funding to conduct targeted natural flood management measures onto their land. The auction was carried out last year; successful bids began being implemented across the catchment over the summer and will continue through this planting season up to March 2023.

Some of the measures that will be carried out from the NatureBid 2 project include tree planting, soil aeration, creating new hedgerows and buffer strips, and installing leaky dams, which all help to slow the flow of water in the catchment and reduce peak flows downstream and in doing so decrease the risk of flooding.

Natural Flood Management also offers wider benefits including improving soil health, improving habitats and providing greater biodiversity for wildlife and increasing carbon sequestration.

Read more about natural flood management in the Upper Aire catchment on [Leeds City Council's Commonplace website](#).

If you have land and are interested in tree planting, visit the White Rose Forest's website on www.whiteroseforest.org/aireriver.