

## Keeping you informed – NFM pilots Autumn 2019 (1.)

# Leeds flood alleviation scheme

Our pilot projects trialling natural flood management (NFM) techniques are now underway to help protect the people of Leeds and those living near the River Aire from the risk of flooding. These pilots form part of the Leeds Flood Alleviation Scheme, led by Leeds City Council in partnership with the Environment Agency, which take a catchment wide approach to reducing flood risk in Leeds and areas surrounding the River Aire.

Evidence from these projects will be gathered to fully understand the benefits of NFM and develop how we work with landowners, tenants and key partners in the future.

This work is part of a wider flood risk programme which has been funded by Leeds City Council to reduce the flow of water upstream so the landscape can hold more water in times of flood. This is the first time that natural processes have been used to reduce flood risk over such a large area. The programme uses tree and hedge planting, re-channelling rivers to their natural courses, soil aeration, wetland creation and moorland restoration all of which have lots of benefits for people and wildlife.

### Eshton Beck pilot

Works on Eshton Beck include planting 1,100 trees at four sites including a working farm at Gargrave.



**Photo caption: Our NFM team planting trees at Eshton Beck.**

These have been planted by those working for and volunteering with our partners - The Yorkshire Wildlife Trust.

A wide variety of NFM measures have been implemented including log and brash dams, bank stabilisation works that use timber to prevent bank erosion and installing fences and a water gate to protect the new trees from grazing stock.

The aim of the pilot is to see how natural techniques can slow the flow of water and reduce the risk of flooding downstream.



**Photo caption: one of the leaky dams at a pilot site in Earby**

## Earby pilot

The pilot project underway in Earby is at Marlfield Farm and will test how natural solutions such as creating wetlands can be used to help reduce the risk of flooding along the River Aire.

We are working with the River Stewardship Company to deliver the work by Christmas which will also include hedge planting, fencing off corners of fields from grazing so that more vegetation can grow and installing leaky barriers to slow the flow of rainwater whilst also providing better habitat for local wildlife.

It is hoped that this will be the first of many of these NFM schemes in the area. We are keen to work with any landowners who are interested in getting involved.

Chris Milburn, project executive at the Environment Agency, said: “As the country faces a national and global climate emergency, restoring our natural environment on a major scale like this is an important part of the toolkit to help reach net zero emissions in the future. Natural Flood Management offers huge potential for climate mitigation, for example, creating wetlands, restoring our uplands and planting trees can help to capture tonnes of carbon from the atmosphere.



**Photo caption: Jenny Barlow, Environment Agency; Daniel Procter, landowner with baby Rowan and site manager Jim Randle, River Stewardship Company**

“We are very grateful to the landowners for working with us to trial these NFM techniques on their land which will contribute to local flood risk reduction and provide wider environmental benefits, slowing the flow of water locally and to downstream communities including Leeds.”

Any landowners interested in using natural flood management techniques on their land can contact the NFM project team by emailing: [LeedsFAS.nfm@environment-agency.gov.uk](mailto:LeedsFAS.nfm@environment-agency.gov.uk)

## What are Britain's Uplands For?

Members of our NFM project team took part in a conference organised by The Heathers Trust called ‘What are Britain's Uplands For?’

It was attended by representatives from Wildlife Trusts, Natural England, Yorkshire Water, alongside land owners and managers.

Moors for the Future demonstrated their work in the Peak District to restore peatlands and show how they can be used for natural flood management. We are looking to work with landowners in the River Aire as part of our NFM pilot projects. For more info visit: <https://www.moorsforthefuture.org.uk/the-latest/recent-news/moorlife-2020/the-peak-district-heather-trust-conference.-what-are-the-uplands-for>



## How we will measure our success

**The main objectives of our NFM work include:**

**Reduce flood risk** – our goal is to reduce peak flood flows in Leeds by 5% and achieve a 1 in 200 (0.5% ) chance of flooding in any given year, by the year 2069, through delivering NFM measures

**Provide environmental benefits** – we will help deliver wider environmental improvement including habitat and biodiversity enhancements as well as improving the quality of our water, soil and air

**Increase social value** – some of the improvements we hope to achieve include:-

- more tourism
- improving the social and recreational use of land
- better public access including rights of way
- creating green / blue corridors to provide links to key areas
- aesthetic improvements to areas.

**Innovate and share** – we will work with other organisations who are working on NFM projects to share knowledge and our

outcomes widely. We will look for opportunities to trial new technology and ideas and establish best practice in our field

**Store carbon** – and we will monitor what is stored through the implementation of NFM measures – for example, tree planting

**Educate** – we will spread the word amongst landowners, riparian owners and local communities about how to work with natural processes. Also we are committed to supporting local schools, businesses and other groups who want to get involved in helping to implement NFM measures or provide funding or land

**Deliver in partnership** – our aim is to join up with other projects in the catchment and work hard to attract £4m of partnership funding.

## Resilient Cities Conference

Whilst taking part in the Resilient Cities Conference in Germany, a delegate Sander Carpaij, from Wetlands International, asked to visit phase 1 of the Leeds Flood Alleviation Scheme and our NFM works at Harden Moor.



Pictured: Una McMahon, from the NFM project team with Sander Carpaij at Harden Moor. **For more information about our NFM work email: [LeedsFAS.nfm@environment-agency.gov.uk](mailto:LeedsFAS.nfm@environment-agency.gov.uk)**