

Thornton Flood Risk Resilience

Partnership Wetlands and Flood Attenuation

Background

Thornton, near Blackpool, is a town within the River Wyre catchment. The natural catchment area is low lying, flat and saturated which results in elevated flood risk. Historically, there has been flooding from multiple sources, most notably in 2017 when fluvial, pluvial and sewer flooding occurred. There are water quality issues from misconnections and, for many years, it has been an ambition of the partnership to resolve this. The scale of capital investment required to install concrete storage tanks to attenuate storm flows is not cost beneficial per customer or environmentally sustainable to deliver.

The existing drainage system and its connection to sewers creates inefficiencies by decreasing sewer capacity and increasing pumping, resulting in unnecessary treatment at Fleetwood wastewater treatment works. The project provided an opportunity for the community to plant up wetland areas that have been created to realise the ecological benefits of this scheme

Our approach

In 2019, we identified the opportunity to collaborate with other risk management authorities, catchment partners such as the Rivers Trust, McDermott Homes and the communities group of the Wyre Flood Forum, to develop a plan to solve the joint issues in the catchment through natural solutions. This included:

- collaboration through effective catchment partnerships to identify needs;
- examining how to store and purify flood waters through natural flood management;
- identifying multiple benefits for extra investment to compliment and deliver the Natural Course / Wyre Rivers Trust project;
- investment of £220k to Wyre Rivers Trust through bespoke legal agreements across Lancashire;
- 3.3 hectares of wetlands and 1,000m³ of flood storage at Hillylaid Pool; and
- 1,300m³ of storage and wetlands habitat constructed collaboratively with McDermott Homes.

Support for the project came from the EU LIFE funded Natural Course project.

Key learning points

- ✓ A catchment scheme was possible because we have strong and effective partnerships.
- ✓ Worked with developers to use land for flood risk management.
- ✓ Alternative funding from UU help realise wider benefits.
- ✓ Monitoring the wetlands using dynamic telemetry will enable us to understand the catchment and to assess ecological improvement with input from local communities.
- ✓ Realignment of the old modified watercourse has restored the river back to a natural state.
- ✓ We will learn from our collaborations here and apply them across the wider strategic partnerships in the North West.

