

Work begins in Lincolnshire on innovative flood management project

The million pound research and development project will use natural flood management techniques to hold back water to reduce the risk and severity of flooding.

The project will help 3 villages Swaton, Threekingham and Spanby who currently have 25 homes and 38 businesses at risk of flooding.

The Environment Agency is working closely with farmers to install specialist ponds and grassed areas. Together these measures will slow the flow of water by storing it and letting it slowly seep into the soil.

There will be 5 specialist attenuation ponds across 3 farms. These will have the capability to hold back approximately 22,000 cubic meters of flood water, the equivalent to 9 Olympic sized swimming pools. In addition, the Swaton ponds have been designed to include a permanent wildlife pond in the centre of the attenuation area.

The Environment Agency on site at Swaton.

The grassed areas, known as field edge swales, are 2 to 4 metre wide strips capable of intercepting water flowing over the land. There will be 29 swales across the 3 farms which will be sown with wildflower seeds to boost benefits for pollinators. They'll also have the capacity to hold back approximately 26,000 cubic meters of flood storage water, the equivalent of another 10 Olympic sized swimming pools.

The Environment Agency provided the funding for this project and the Black Sluice Internal Drainage Board are undertaking and supervising the works on the ground. Some of the swales are also being installed by the farmers themselves.

Katharine Samms, a flood risk advisor for the Environment Agency said:

So far we have constructed 1 pond and around 1.8 kilometres of swales and are pleased with the progress we are making. The rest of the features should be constructed over the summer, finishing with the last ponds and swales after the harvest.

The project is 1 of the first natural flood management schemes to be installed in an arable landscape. More usually schemes are located on grazed land or in woodlands, so we are keen to see how well it will work.

We would like to thank the 3 farmers whose farms we are installing

the scheme on. The project wouldn't be possible without them.

One of the attenuation ponds.

Barbara Rumble, Project manager at the Environment Agency said:

It's been a pleasure to get involved in this unique project and to build a strong team consisting of the Environment Agency, suppliers, the Internal Drainage Board and farmers.

I am pleased we are able to see progress on the ground. I am looking forward to seeing the findings from the monitoring to see how effective the project is in reducing local flooding.

The Environment Agency is working in partnership with Heriot Watt University who will be monitoring this pilot project. After completion this winter the work will be monitored for 3 years by their PhD student who will gather data and report on the scheme's effectiveness.

- 2 of the farms are owned by the Crown Estate, who have allowed the Environment Agency to undertake this work to benefit the local community.
- The features have been designed by Environment Agency delivery partners Arup.
- Roger Wardle Consultancy have been key to the success of this project, undertaking farmer engagement and liaison.
- Roythornes Solicitors for the Black Sluice IDB have assisted with all the legal agreements required between the parties to allow this work to proceed.
- The Swaton NFM project has been predominantly funded through the Natural Flood Management Research Programme funding provided by the government between 2016 and 2021. In addition the project budget has been topped up using other government department funding. This includes local levy funding from the Regional Flood and Coastal Committee and a small amount of Flood and Coastal Risk Management Grant in Aid.