south east rivers trust

Natural Flood Management (NFM) at Bedgebury Forest

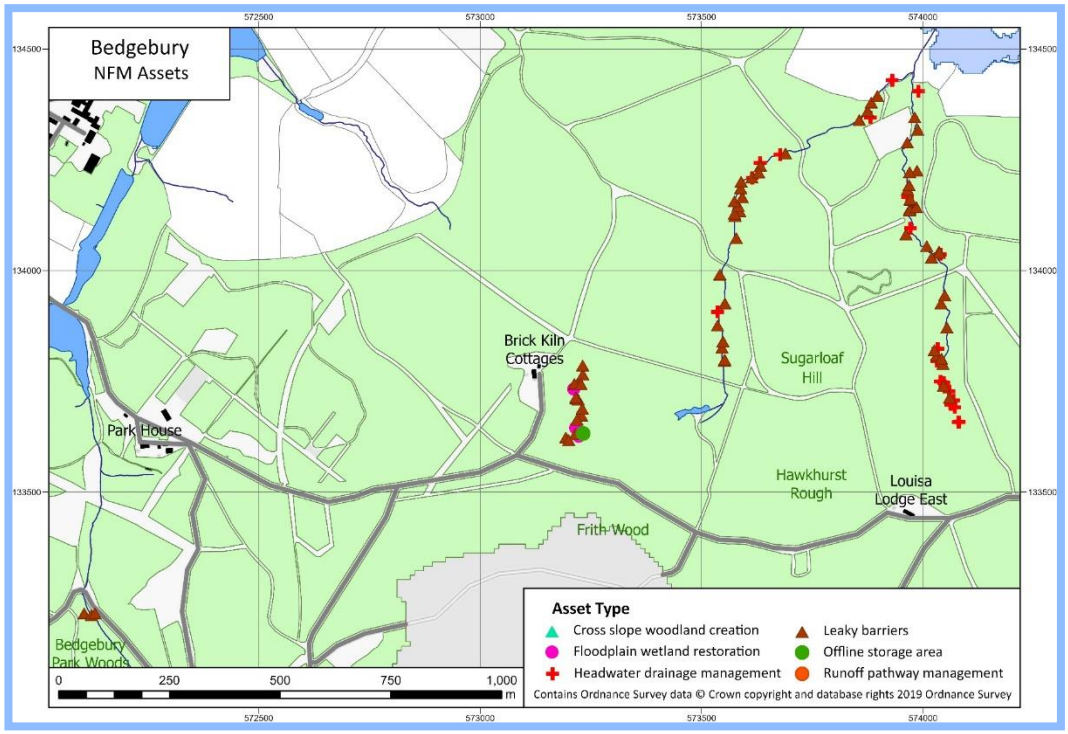
Working with natural processes to slow the flow and store water to reduce flood risk across the Medway catchment.

Bedgebury National Pinetum and Forest

Bedgebury National Pinetum and Forest, owned by Forestry England, is the largest pinetum in the world with over half a million visitors a year.

The site offered a key opportunity to demonstrate the benefits of NFM more widely.

As well as demonstrating flood risk reduction, the NFM assets offer clear additional benefits, including: improving water quality, restoring the wet woodland habitat and increasing the habitat's resilience to climate change.



Gully stuff

NFM Measures

- ✓ 63 Leaky Woody Structures (LWS) installed in Bedgebury Forest, ranging from 1 m to 13 m in width.
- ✓ 20 gully stuffs (pictured left) installed in Bedgebury Forest.
- ✓ Four large LWS to demonstrate NFM to the public.
- ✓ Creation of an offline storage area using a "leaky bund".

Funders & Supporters

Forestry England
Bedgebury National Pinetum and Forest

Interreg
North Sea Region
FRAMES
European Regional Development Fund

EUROPEAN UNION

Part of the
Medway Flood Partnership

Environment Agency

Benefits provided by the NFM work at Bedgebury Pinetum

Flood Risk

1500 m^3 of flood storage was created by installing LWS (pictured right) at Bedgebury.

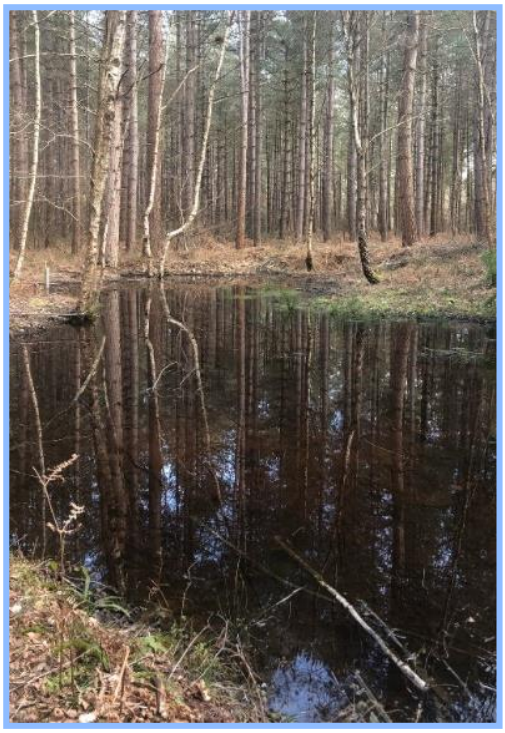
While the NFM measures installed demonstrate the ability of LWS to reduce flood risk, at Bedgebury more focus was placed on the additional benefits they offered.

Public Engagement

The site at Bedgebury provided a unique opportunity to demonstrate the concept of NFM to large numbers of the public. The large demonstration LWS were built in a well visited area of the Pinetum and are accompanied by an information board to tell visitors about the benefits NFM has to offer.

New Priority Habitat

The LWS hold back large volumes of water, which has created 2 hectares of additional wetland along a 2 km stretch of river. The wetland habitat has been rapidly colonised by a range of fungi, aquatic plants and animals, including smooth newts and common frogs. This indicates that NFM has provided a big boost for biodiversity.



Bog Beacon Fungi

Wider Benefits

In principle, LWS are known to **improve water quality**.

The silt and debris collected is also filling in the incised (overly deep) streams, which **kick-starts** the **natural process** of water spilling out onto the forest floor during high flows.

This process restores the quality of the wet woodland habitat, allowing a diversity of lichen and fungi to colonise the forest floor.

Climate Resilience

Wet woodland is a priority habitat, threatened by climate change. It is also hoped that by keeping the forest floor wetter throughout the year, it will increase the wet woodland's resilience to the hotter and drier climate projected for future years.