

Natural Flood Management

Hilbert Woods and Grosvenor Park



Natural Flood Management (NFM) is used to protect, restore or mimic the natural functions of catchments to reduce the risk of flooding.

Working with natural processes, NFM uses a variety of mechanisms to reduce flood risk such as increasing infiltration, slowing the flow of water, storing water and holding back sediment.

Often NFM use a combination of these mechanisms within a catchment with features such as cross slope hedgerows, swales, leaky barriers, floodplain reconnection and revegetation of bare areas.

Using NFM techniques to manage water can have a range of additional benefits:

- ◆ Reduced flood risk
- ◆ Increased biodiversity
- ◆ Carbon storage
- ◆ Recreational areas
- ◆ Improved water quality
- ◆ Increased resilience to climate change
- ◆ Improved groundwater recharge
- ◆ Improved liveability for the community

In Grosvenor Park and Hilbert Woods, Natural Flood Management methods were used to reduce flood risk to properties downstream. Leaky dams were constructed, mimicking the structures built by beavers, to hold back water and create ponding on rivers and watercourses. The structure allows a flow of water to continuously pass underneath it, however when the stream experiences high flows these are held back by the structure slowing the flow of water.



Both small and large dams were used to manage varying flows of water. Smaller flows within Hilbert woods were managed with small scale brush dams. In Grosvenor Park where larger flows were experienced a much larger dam using tree trunks was constructed to slow and retain larger volumes of water.

The materials used to create the structure are held in place with wooden stakes driven into the bank the materials are secured together with wire. This prevents materials from washing downstream and causing blockages which could increase flood risk. Water held behind this structure will flood out onto the bank slowing the flow further and helping to store more water.

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A large wetland area created by Tunbridge Wells Borough Council within Grosvenor Park, provides a Natural Flood Management benefit by capturing surface water from the surrounding area. During intensive rainfall, run-off from the parkland and the surrounding urban area would quickly make its way into the stream and fast flows within the stream could cause flooding downstream. The wetland area helps to hold some of this run-off releasing it slowly.



Completed wetland area



The Natural Flood Management project has been delivered as a partnership project between the Friends of Grosvenor Park and Hilbert Woods, Kent High Weald Countryside Partnership, Kent County Council Flood and Water Management Team and Tunbridge Wells Borough Council. The Friends of Grosvenor Park and Hilbert Woods and Kent High Weald Countryside Partnership help to care for and maintain the park and woodland. Working with local people to deliver projects provides a lasting legacy and demonstrates the importance of community action.