

Natural Flood Management



Mill Farm

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 by 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 the winter of 2013/14, the Medway Catchment experienced devastating flood which affected numerous communities and left 205 flooded homes in Yalding, 102 in Tonbridge and 12 in Maidstone. Emergency services rescued people who were trapped in their homes due to rising water and families were evacuated from their homes. In Yalding, 56 families has to spend Christmas Day in temporary accommodation due to the flooding.



Flooding across Maidstone and Yalding in December 2013 ©Kent Online

In 2017, KCC Flood and Water Management Team began investigating the opportunity for a NFM pilot scheme in Marden, to store peak flows from the drainage ditch network and River Teise, which contribute to flooding in the catchment. A site at Little Mill Farm, Marden was proposed by the landowner as a potential flood storage area.

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Site photograph before works

The field provided space for a 4 acre wetland with a storage capacity of 15000m³ of water.

When water levels in the ditch network decrease, the wetland storage area is able to drain slowly back through a culvert to the original watercourse and, ultimately, the River Beult.

The site is surrounded by ditches which take surface water flow from the land, and flows from the River Teise.

A NFM feature was designed to intercept this flow, before it reaches the River Beult, and store water during peak flow whilst creating new habitats supporting a wide diversity of bird life.



Site photograph during works



Site photograph of completed works

In order to significantly reduce the flood risk within the Medway Catchment, more farmland in Kent needs to be utilised for Natural Flood Management projects.

The Kent County Council Flood and Water Management Team, are continually assessing opportunities for future NFM projects to reduce flood risk.