

MULTIFUNCTIONAL WETLANDS



Investigating the scope for natural flood risk management, resilience against low flows and biodiversity enhancement.



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In the last century we have lost 90% of our freshwater habitats, and globally, over the last thirty years alone, our freshwater species have declined by 76%. Despite these losses, only a very small proportion of wetlands in the UK are formally protected. It is therefore important that projects aimed at protecting and improving these declining habitats are undertaken.

It is therefore vital that we work together to address the current declines in biodiversity, and to future-proof the water environment for climate change and an expanding population. But Biodiversity is not the only victim – our rivers and wetlands also provide the water we drink, and can help to buffer and protect us from flood flows. We need healthy wetlands that can provide us with all of these ‘Ecosystem Services’.

The Partnership plan to investigate opportunities to combine natural flood risk management, resilience against low flows and biodiversity enhancement aims, to create multifunctional wetlands.

Following the recent floods, there is much interest in the use of techniques to slow or reduce flood flows, and to store flood waters, in order to reduce the impacts of flooding on local communities. The Partnership will investigate the use of natural approaches to reduce flood risk, for example by ‘roughening up the floodplain’ or undertaking appropriate tree planting to slow flood flows. This can also bring biodiversity and water quality benefits.

Restoring and enhancing floodplain habitats can improve the resilience of rivers and floodplains so that they are not harmed by low flows and abstraction, securing our drinking water supplies. This would involve working with key users of water to identify where river and floodplain habitats can be enhanced through channel narrowing, bank re-profiling and impoundment removal / modification. As well as bringing biodiversity benefits, this could have a positive impact on water quality, and could link with natural flood risk management techniques.

Finally, biodiversity-focussed enhancements could bring benefits to some of our most vulnerable or rapidly declining species, such as wading birds. Wet grassland sites have historically been important strongholds for breeding waders in the lowlands, particularly in river valleys such as the Test and the Itchen. There have been severe declines in these birds since the 1980s. The partners will investigate the potential to reconnect the rivers to the floodplain in line with the Test & Itchen River Restoration Strategy, and to promote appropriate sward management and predator control so that historic areas of wet grassland can be restored to create more favourable conditions for breeding waders. In addition to the biodiversity benefits, such work also has significant potential as a natural flood risk management mechanism by increasing water attenuation and slowing down flows in extreme events. It should also have positive implications for water quality.

Thus, the partners will aim to work with landowners, fisheries and others to identify the scope for site enhancements which provide biodiversity benefits, create habitat resilience, and allow for natural flood risk management; making the most for society of the precious-few wetlands that remain.