



Natural Flood Management (NFM) Scenarios Workshop

23 October 10am – 1pm,

Walwyn Hall, Lambourn, RG17 8NQ

Refreshments and lunch included

Do you have ideas about how land in your local area can be used and managed to reduce flood risk and deliver other benefits too? Would you like to see these ideas worked up, explored and incorporated in to decision making?

Aim: The LANDWISE project is running a series of workshops with Catchment Partnerships across the West Thames area this year to create catchment scale scenarios for natural flood management (NFM) that reflect the type of measures the local community and organisations want to see. We can then run these scenarios through models to 'test' how effective they are at reducing flooding under different weather conditions. These scenarios will help us to create storylines around different landscape types so that we can explore different levels of catchment cover under preferred measures e.g. how much land needs to be in herbal lay before we see a change in downstream river flow?

The intention of the workshop is to make sure we are testing the NFM measures people want to see in the landscape they live and/or work and know well. There are so many options with NFM that we need to focus on what is important to local communities and organisations to make work feasible.

Workshop format

Before the workshop, we will send round a 1 page summary of different NFM measures available to help get everyone thinking about these measures beforehand.

At the workshop, we will:

- Reflect on invite comments and questions about different NFM measures on the 1 page summary to make sure everyone is happy about what these are
- Consider which measures are most acceptability and feasibility for the local area by working individually to capture your unique knowledge and as a group to build wider consensus. We will use an established workshop method that enables everyone's opinion to be captured and shared, not just dominant voices.
- Plan where the most acceptable and feasible measures could be located in the landscape, considering other cultural and practical factors. We will work at a large scale and consider landscape types rather than individual fields e.g. what would work in a chalk catchment inside an ANOB? Through this process, we will develop a range of different scenarios that we can explore further in modelling work.

After the workshop, we will:

- Provide a short report of findings for this workshop to feed in to your own catchment planning
- Share GIS layers for scenarios created where data licenses allow
- Create a paper on all outputs across Catchment Partnerships. This could be used to support further funding applications, and feed in to TRFCC particularly.
- Share the modelled outputs that testing these scenarios during the project (this might take a bit longer!).

What is LANDWISE?

LANDWISE is one of three projects funded by the Natural Environment Research Council evaluating the effectiveness of Natural Flood Management programme. LANDWISE seeks to examine how well natural land-based measures can be used to reduce the risk of flooding for communities.

LANDWISE will evaluate the effectiveness of realistic and scalable land-based NFM measures to reduce the risk from flooding from surface runoff, rivers and groundwater in groundwater-fed lowland catchments. We will study measures like crop choice, tillage practices and tree planting, that have been identified by people who own and manage land to have the greatest realisable potential. NFM measures will be evaluated for their ability to increase infiltration, evaporative losses and/or below-ground water storage, thereby helping to store precipitation to reduce surface runoff and slow down the movement of water to reduce peak levels in groundwater and rivers.

However, we need to carefully examine the balance between increased infiltration, soil water storage and evaporative losses under different types of NFM measures, because long-term increases in infiltration could actually increase groundwater and river flood risk if there is less capacity within the ground and in rivers to store excess precipitation from storm events. Also, following a review of the available research to date, other researchers (Dadson et al, 2017) came to the conclusion that land-based NFM measures would only provide effective protection against small flood events in small catchments. As the catchment size and flood events increase, the effectiveness of land-based NFM measures in reducing flood risk would decrease significantly. However, this idea needs to be tested further.

We will work at three spatial scales (field, catchment and large river basin) and explore modelling scenarios, developed with people who own and manage land and live at risk of flooding, to look at how land-based NFM could affect flooding. Scenarios will include experienced in the recent past in July 2007 and over the winter of 2013-14, and how future land use and management could affect flood risk in 2050 as the climate changes. We will consider how government policy could change after we leave the EU to support land-based NFM.

For more information, contact Dr Joanna Clark (j.m.clark@reading.ac.uk), Principal Investigator

Web: <https://lanwise-nfm.org>

Twitter: @NERC_NFM #LandwiseNFM

E-mail: landwise@reading.ac.uk



Collaboration between: University of Reading, British Geological Survey, Centre for Ecology and Hydrology, University of Gloucestershire, Forest Research, JBA Consulting, CGI Group, Environment Agency, Defra, Natural England, JBA Trust, University of Sheffield, Forestry Commission, Agrimetrics, National Farmers Union, The National Trust, Affinity Water, National Flood Forum, Loddon Valley Residents Association, Swallowfield Flood Resilience Group, Pang Valley Flood Forum, Farm and Wildlife Advisory Group (SE), Farm and Wildlife Advisory Group (SW), Wilts Soil and Root Innovators, Penn Croft Farm, Hendred Farm Partnership, Fincham Farm Partnership, Kingsclere Estate, Yatesbury House Farm, Greywell Hill, Loddon Fisheries & Conservation Consultative, Blackwater Valley Countryside Partnership, Hampshire and Isle of Wight Wildlife Trust, Wild Oxfordshire, Foundation for Water Research, Action for River Kennet, South East Rivers Trust, Freshwater Habitats Trust, Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust, Westcountry Rivers Trust, Wokingham Borough Council, West Berkshire Council, Hart District Council, Swindon Borough Council, Thames Regional Flood & Coastal Committee, Upper Thames Catchment Partnership, Chilterns Catchment Partnership, Loddon Catchment Partnership.