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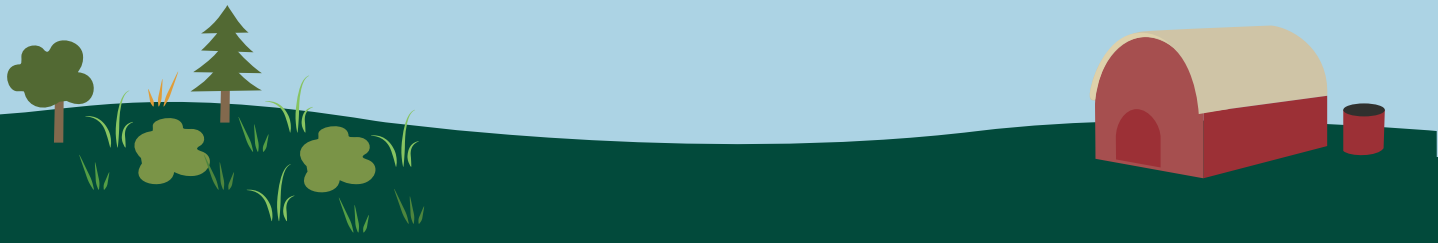
USING AGRICULTURAL LAND FOR FLOOD ATTENUATION (WASHLANDS)



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A flood attenuation area or ‘washland’ is an area of the floodplain that is sometimes allowed to flood in order to manage overall flood risk.

What are Attenuation Areas?

A flood attenuation area or ‘washland’ is simply an area of the floodplain that is sometimes allowed to flood (or is deliberately flooded) from a river or stream. This can help with flood risk management, and may also have the potential to form a ‘wetland habitat’.

Allowing flood water to flow over agricultural land can reduce the impact the flood has elsewhere, for example, in a built up area. Using farmland in this way means that fewer costly, hard engineered flood defences are needed.

Flood attenuation areas are typically designed to slow down and store floodwater temporarily, then release it at a carefully controlled rate when safe to do so.

A detailed design of any earthworks and outlet flow arrangements will be needed to ensure such areas provide the maximum benefit, while avoiding standing water or the risk of floodwater suddenly overflowing the embankments.

Why is it important?

When working well, attenuation areas can deliver a number of benefits including:

- Flood risk reduction
- Water management
- Ecological enhancement
- Recreational areas.

Natural flood attenuation schemes form part of a wider strategy termed the ‘ECOSYSTEM SERVICES’ approach. This initiative encourages the management of the environment so that the best possible combination of economic, social and environmental benefits can result.

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How will this be done?

The Flood and Water Management Act (2010) promotes working with natural processes wherever possible. Natural flood management methods can reduce erosion as well as improving water quality and the wider environment. Flooding land is often more effective than changing land management practices. Oxfordshire County Council promotes the benefit of 'natural interventions' such as:

NATURAL FLOOD ATTENUATION SCHEMES: These can contribute to effective management of flood risk.

REINSTATEMENT OF FLOODPLAINS: This allows river systems to expand and contract naturally, while providing high quality wildlife habitats as well as contributing to effective flood risk management.

SUSTAINABLE DRAINAGE SYSTEMS: This can offer a more cost effective way of managing, storing and treating storm water while reducing downstream flooding;

Adopting natural approaches can help to avoid future costs to landowners and communities, as well benefitting the environment for wildlife.

It is recognised that any land used will result in the loss of resource to the farmer and if routinely flooded to provide storage area, there may be a requirement for compensation. Smaller attenuation areas may well benefit both the landowner and the communities at risk downstream. This factor would need to be assessed on a case-by-case basis and considered and covered by any funding secured.

Working Together

Collaboration between landowners and communities forms a key part of the success of natural flood management. Long-term funding measures, partnership working or incentives, and better use of local knowledge will also be important.

Community managed initiatives will be an important method of delivering environmentally focused projects.

Who can advise?

The Wildlife Trust covering the area can advise on the potential bio-diversity aspects of washland creation.

Who should I speak to if I want to create an attenuation area on my land?

Before making ANY changes that could affect the current flow patterns of a river or stream, contact the local Environment Agency office (for Main Rivers) or, for ordinary watercourses the local District Council or Oxfordshire County Council if located in Cherwell.

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Further Information & Contacts

Berks, Bucks and Oxon Wildlife Trust
Tel: **01865 775476**
Email: **info@bbowt.org.uk**

Environment Agency
Tel: **03708 506 506** Email: **enquiries@environment-agency.gov.uk**

Natural Environment White Paper 'The Natural Choice: Securing the value of nature' is available here:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf

The Natural Capital Initiative:
http://www.naturalcapitalinitiative.org.uk/about/

Ecosystems Knowledge Network:
http://ecosystemsknowledge.net/

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