

Natural Flood Management – a new agenda for river management?

- Tweed Forum – who we are and why are we involved
- NFM – why, what and how
- Practical NFM projects on Tweed
- Why should RAFTS be interested?

Who we are

GOVERNMENT DEPARTMENTS AND AGENCIES

Department of the Environment Food
and Rural Affairs
Environment Agency
Forestry Commission Scotland
Natural England
Scottish Environment Protection
Agency
Scottish Government
Scottish Natural Heritage
Scottish Water
Scottish Enterprise
Visit Scotland


LOCAL AUTHORITIES

Northumberland County Council
Northumberland National Park Authority
Scottish Borders Council

PRIVATE / VOLUNTARY SECTOR

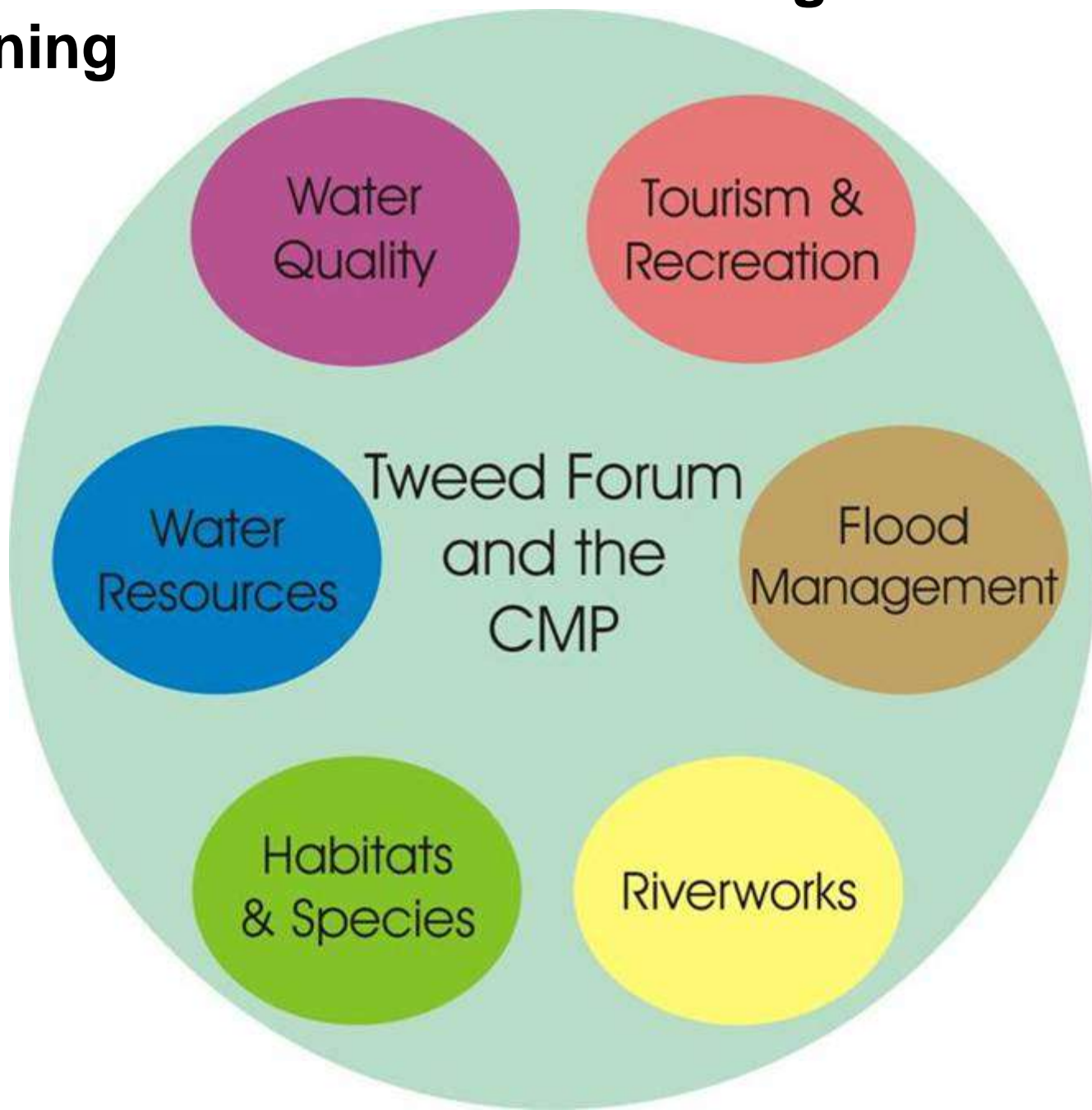
Borders Anglers Federation
Borders Forest Trust
Northumbrian Water
Northumbrian Wildlife Trust
River Tweed Commission
Royal Society for the Protection of
Birds
Scottish Agricultural College
Scottish Borders Rural Partnership
Scottish Rural Property and
Business Association
Scottish National Farmers Union
Southern Uplands Partnership
Tweed Foundation

What we do

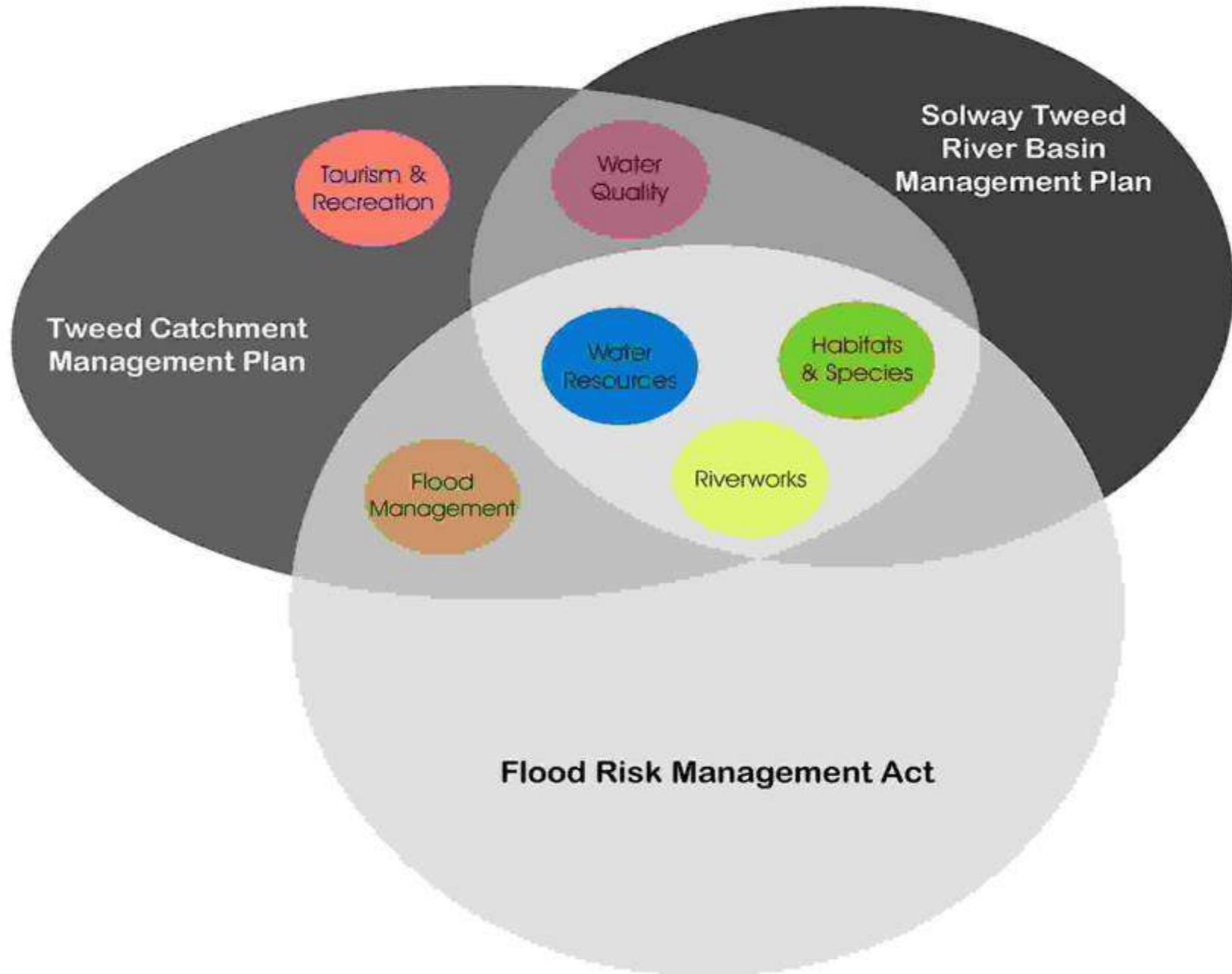


“to promote the wise and sustainable use of the whole Tweed catchment through holistic and integrated management and planning”.

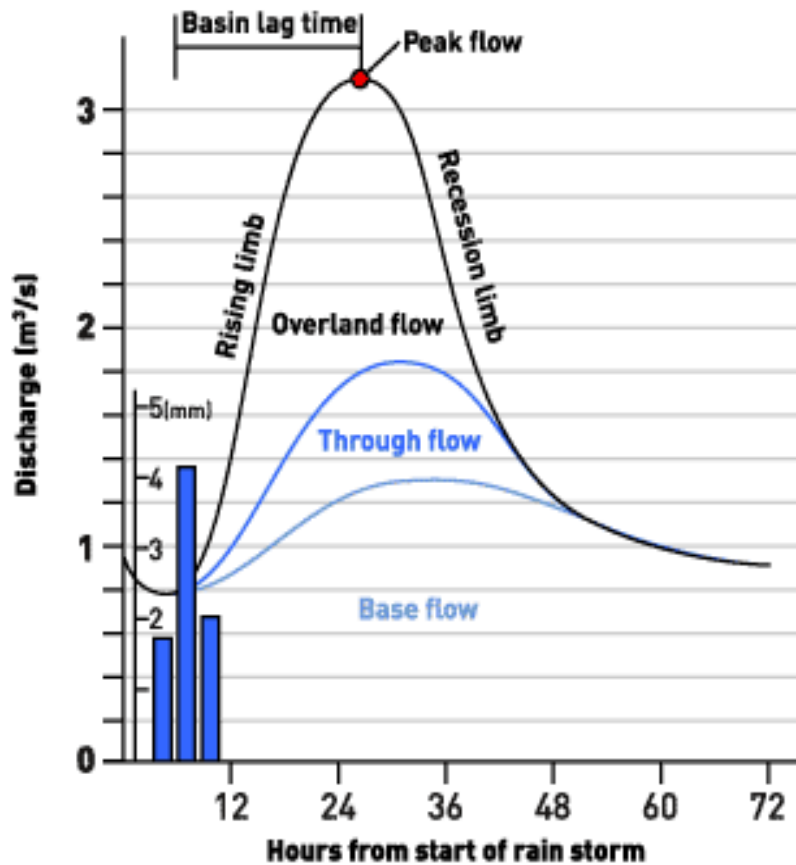
How we do it – catchment management planning



The CMP and the policy context



NFM – the why, what and how?



Natural Flood Management techniques

Mid reaches/lowlands:

Improving water storage and slowing the flow of water:

- restoring native woodlands and floodplain forests
- installing buffer strips
- restoring river channels and re-connecting rivers and floodplains
- land use change, e.g. arable reversion

Farm / urban scale:

Improving flood water storage and reducing local run-off and impacts:

- sustainable urban drainage systems (SUDS)
- green roofs
- permeable surfaces

Uplands:

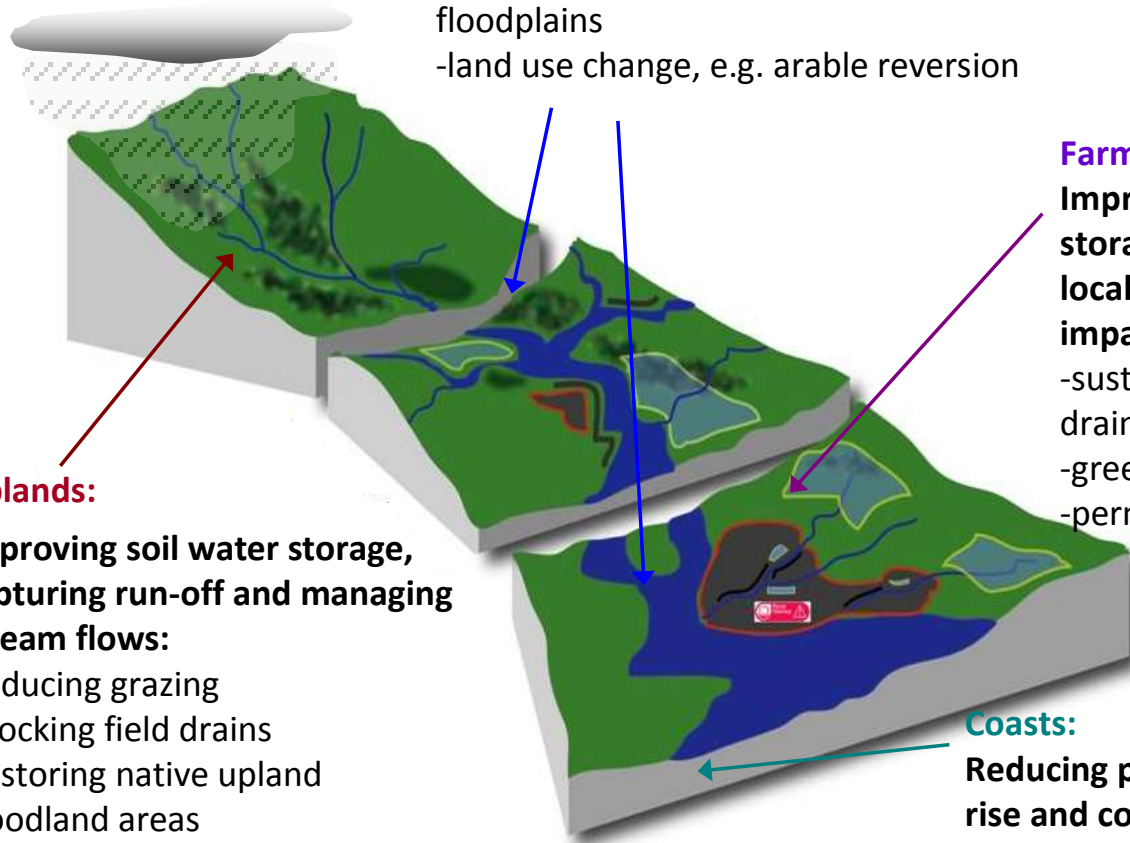
Improving soil water storage, capturing run-off and managing stream flows:

- reducing grazing
- blocking field drains
- restoring native upland woodland areas
- restoring gully woodlands

Coasts:

Reducing pressure of sea level rise and coastal erosion:

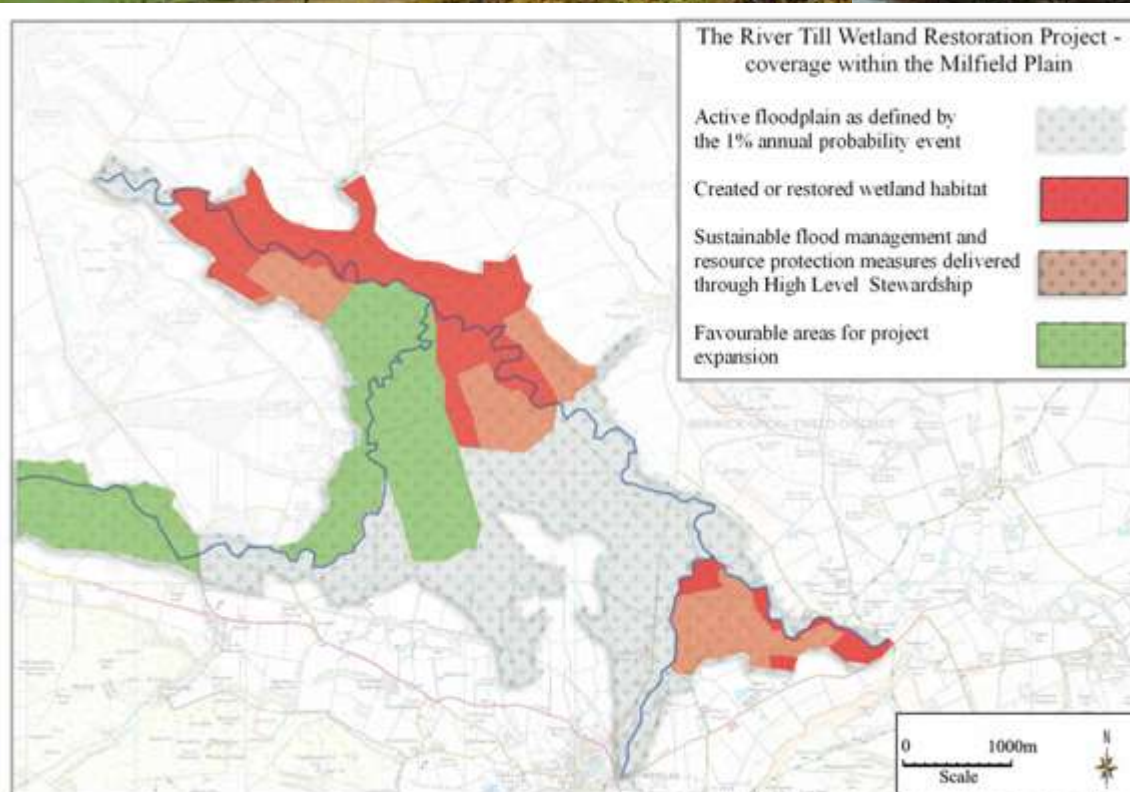
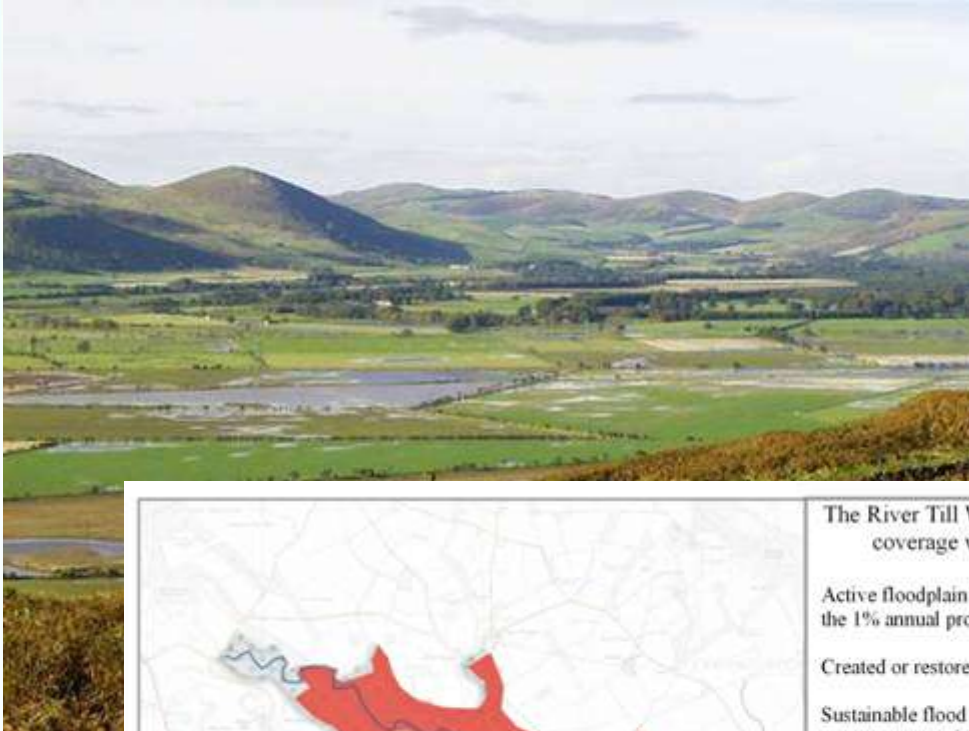
- managed realignment of sea defences
- tidal exchange



Tweed Forum NFM work...in the headwaters



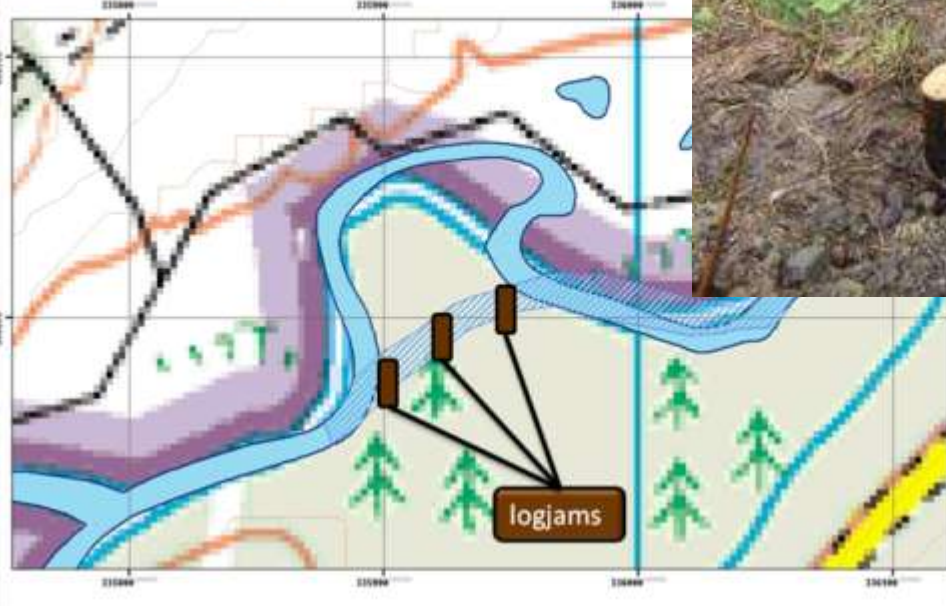
.....in the middle reaches



Supported by:

Environment Agency
 Northumberland Local Levy
 Natural England
 SITA Trust
 Leader North Northumberland
 Northumberland Wildlife Trust

.....in forested areas

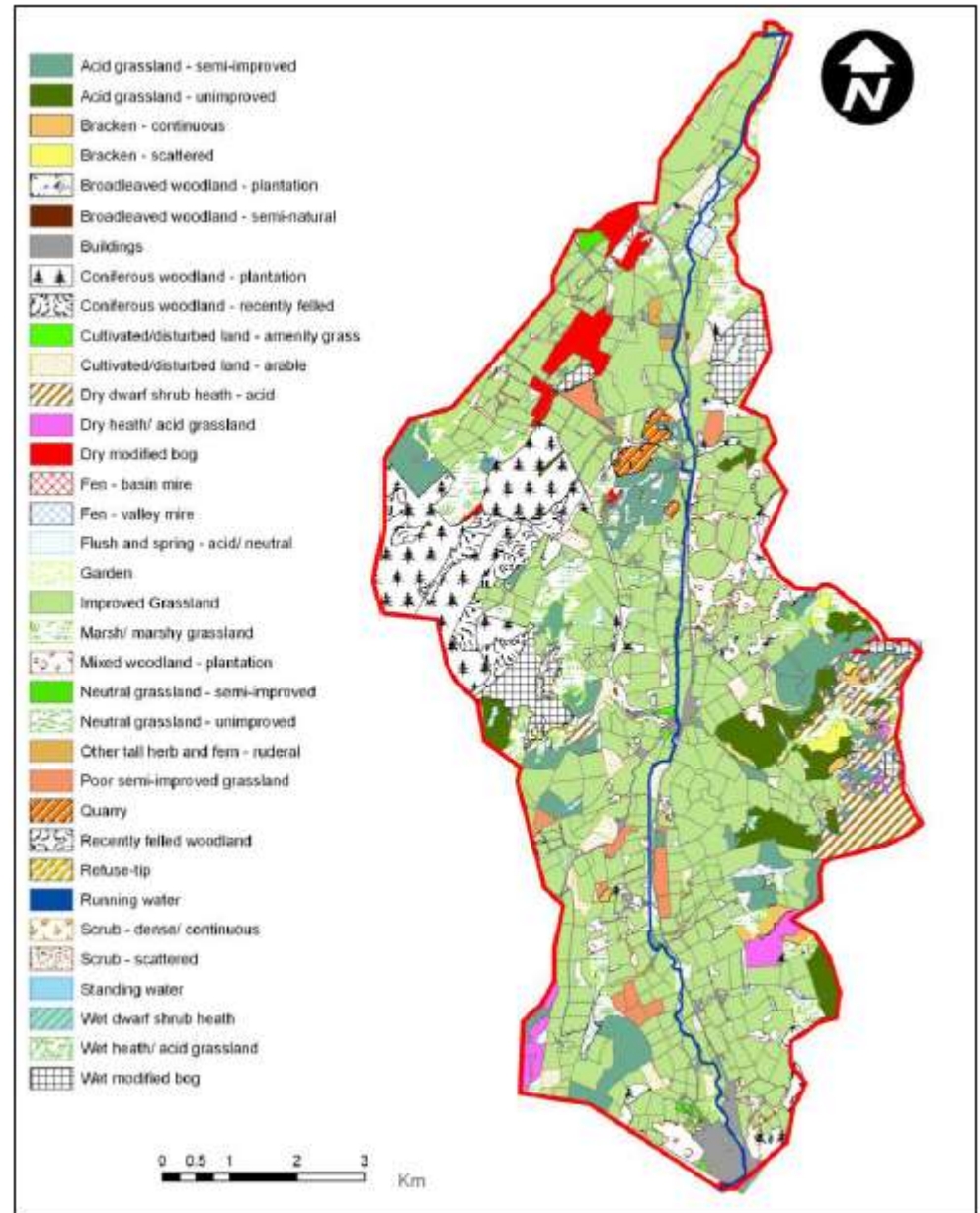


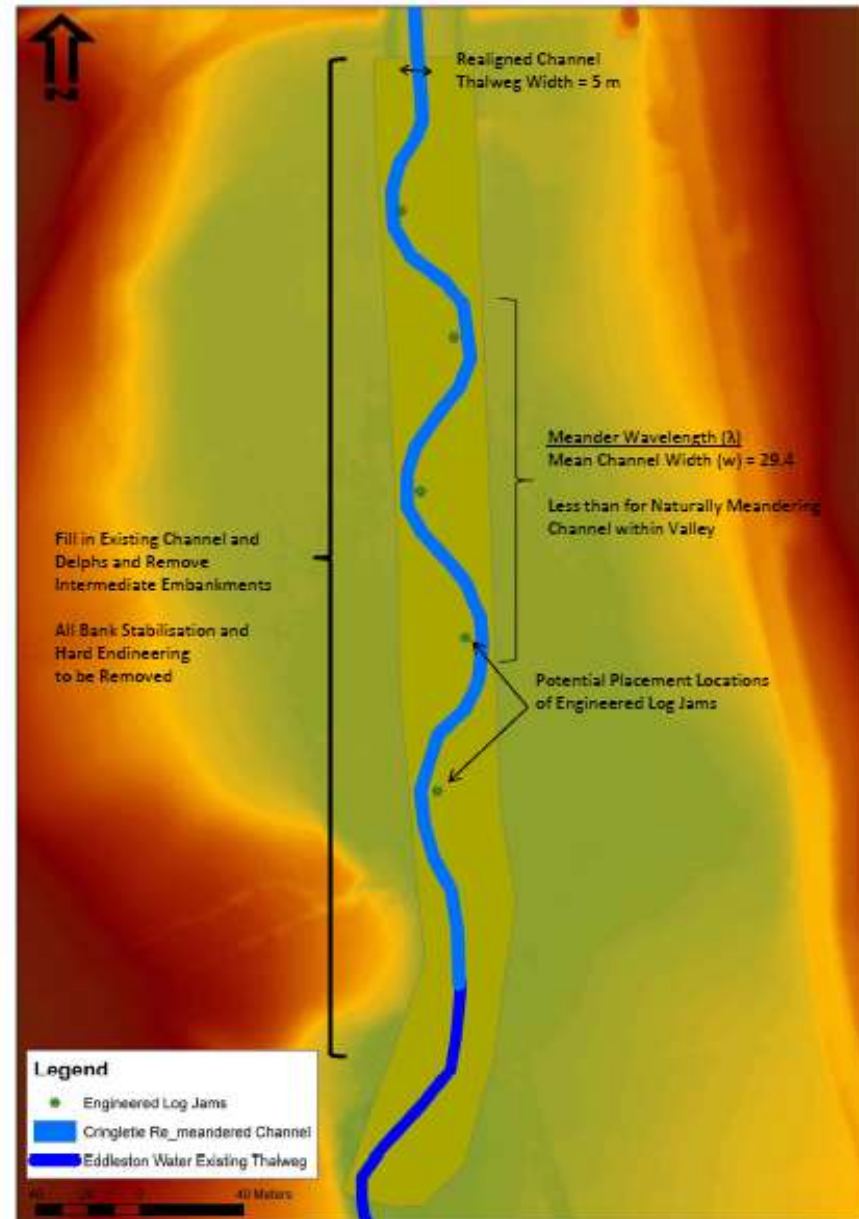
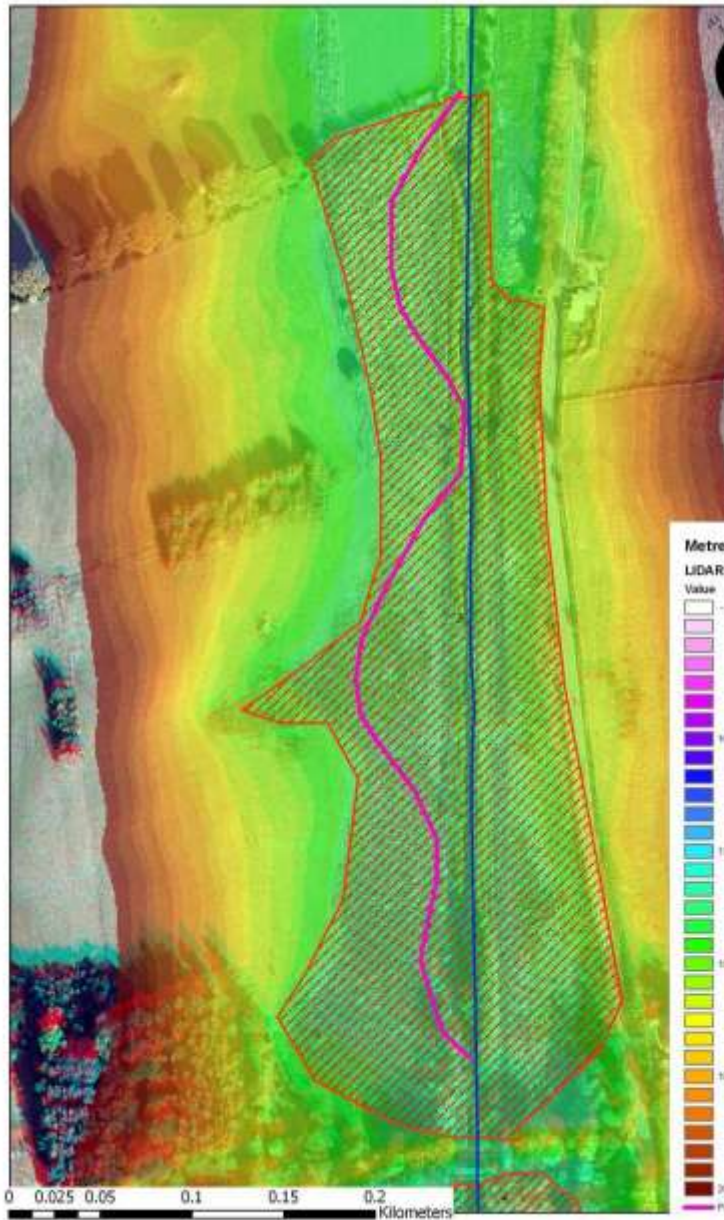
.....wetland restoration & creation

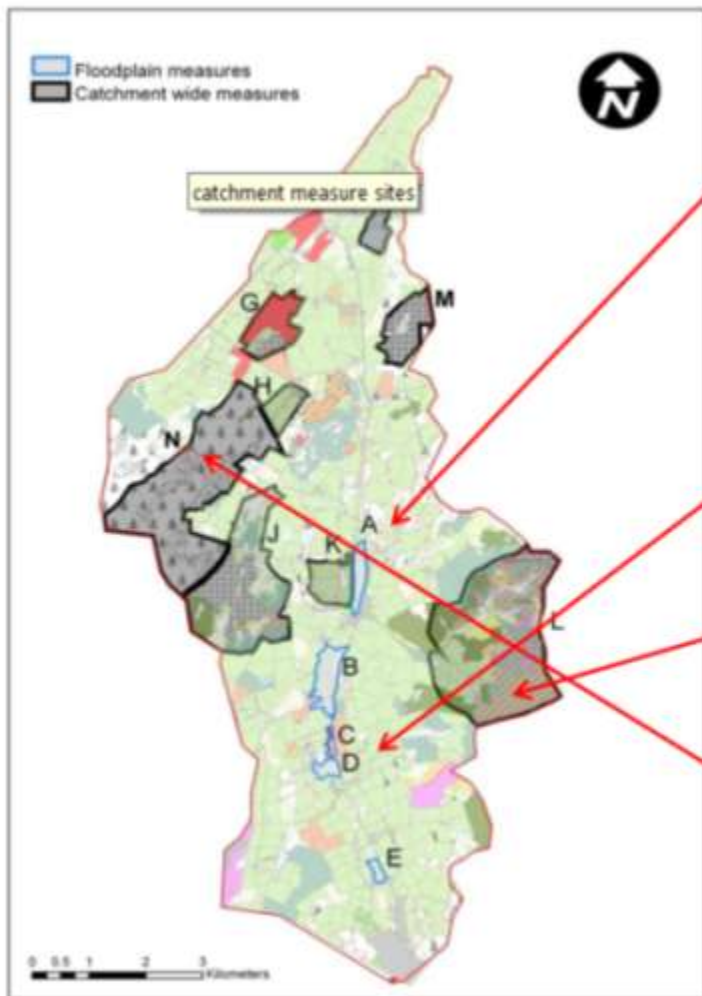


Eddleston Water Restoration Project

University of Dundee







Selected groups of measures:

A: breach/set back embankments, new fence margins, riparian woodland, wet woodland, large woody debris

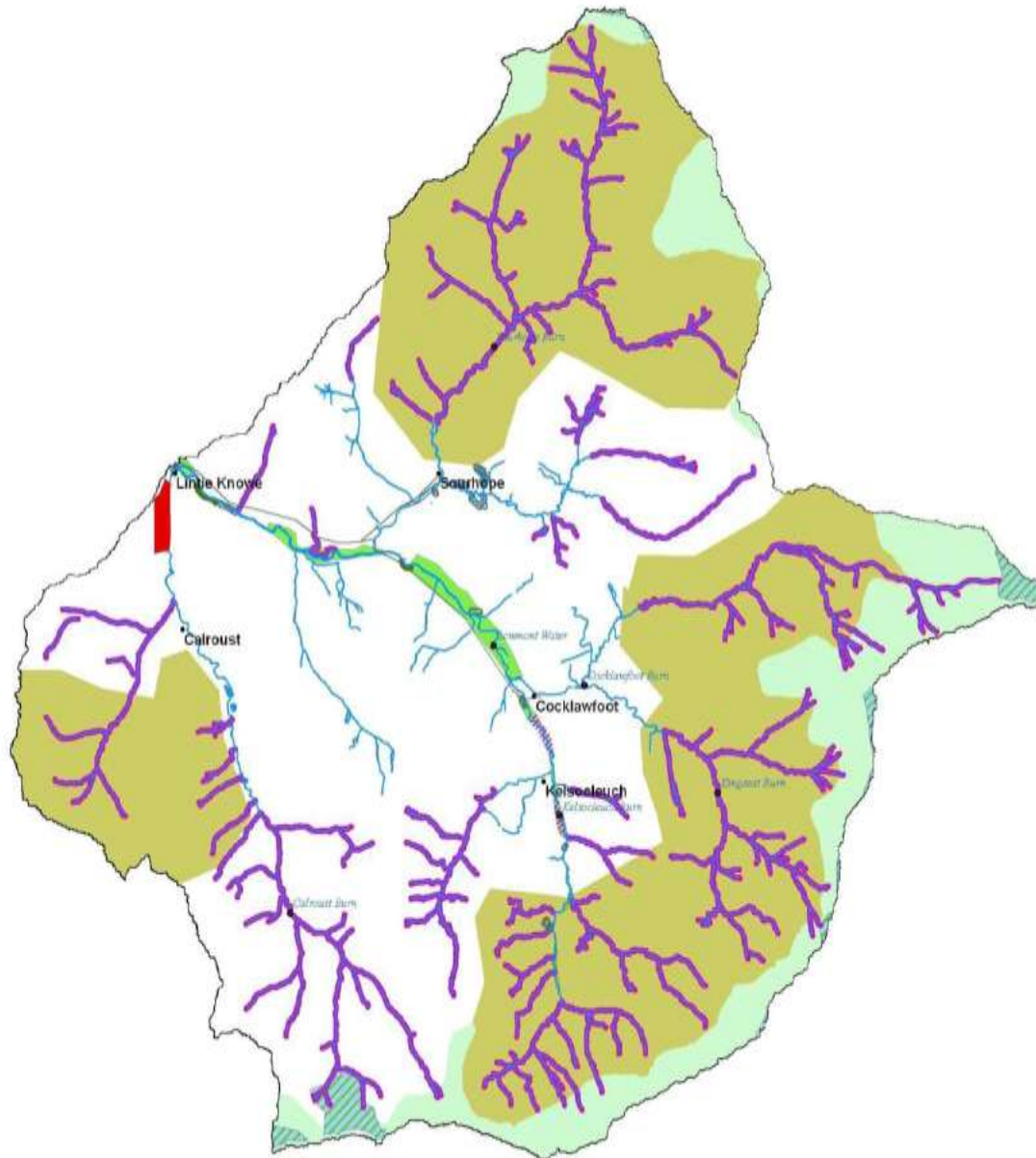
C: re-meander channel, riparian woodland

L: Reduced stocking density, tributary woodland, floodplain forest











N: create ponds, wetlands, riparian woodland block ditches, large woody debris

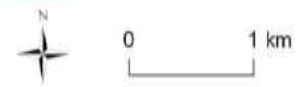
Bowmont Water/River Glen Flood Risk Management Project





Legend

-  Existing tree planting scheme
-  Minor Road
-  River network
-  Buffer strips along dufftops
-  Block / modify artificial drains
-  Native gully woodland buffer
-  Wetland restoration
-  Management of existing wetlands
-  Erodible river corridor
-  Leaky barriers or riparian tree planting
-  Native woodland / hedgerow planting
-  Sub-montane regeneration zone



Zone Upper 1
Indicative / Potential
Management Options

Cheviot Futures is committed to providing practical measures to help farmers and land managers adapt to climate change.



We know that climate change will pose some significant challenges for communities in the future, but what are they and how can we address them?

For more information about how Cheviot Futures is working to achieve a more resilient rural community, and to hear about the projects we are involved in, visit our website: www.cheviotfutures.co.uk or e-mail: info@cheviotfutures.co.uk




Alternatively, contact us directly if you want further information, or want to get involved with practical adaptation projects:

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For a full list of Cheviot Futures partners please visit our website.

 This leaflet is made from re-cycled stock.
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real-world solutions
for climate change

Why should RAFTS be interested?

- Much more than flooding – RESILIENCE in all its forms
- Buffer against the effects of drought and as well as flood
- Habitat improvement of spawning/nursery streams – depth, cover, food etc.
- Increase in physical habitat – re-meandering
- Reduced erosion/sediment deposition
- Better water quality – reduced silt inputs, nutrients etc
- Better fishing conditions – less ‘spatey’
- Funding – flood attenuation budgets are significant

Opportunity knocks?

- Local authorities now have a duty to promote catchment scale NFM.
- Most not geared up for doing this
- What is required is
 - a national network of local, catchment based organisations;
 - with an intimate knowledge of their patch
 - with good links with land owners and farmers
 - with a track record of carrying out habitat restoration
- Who can fill this gap?