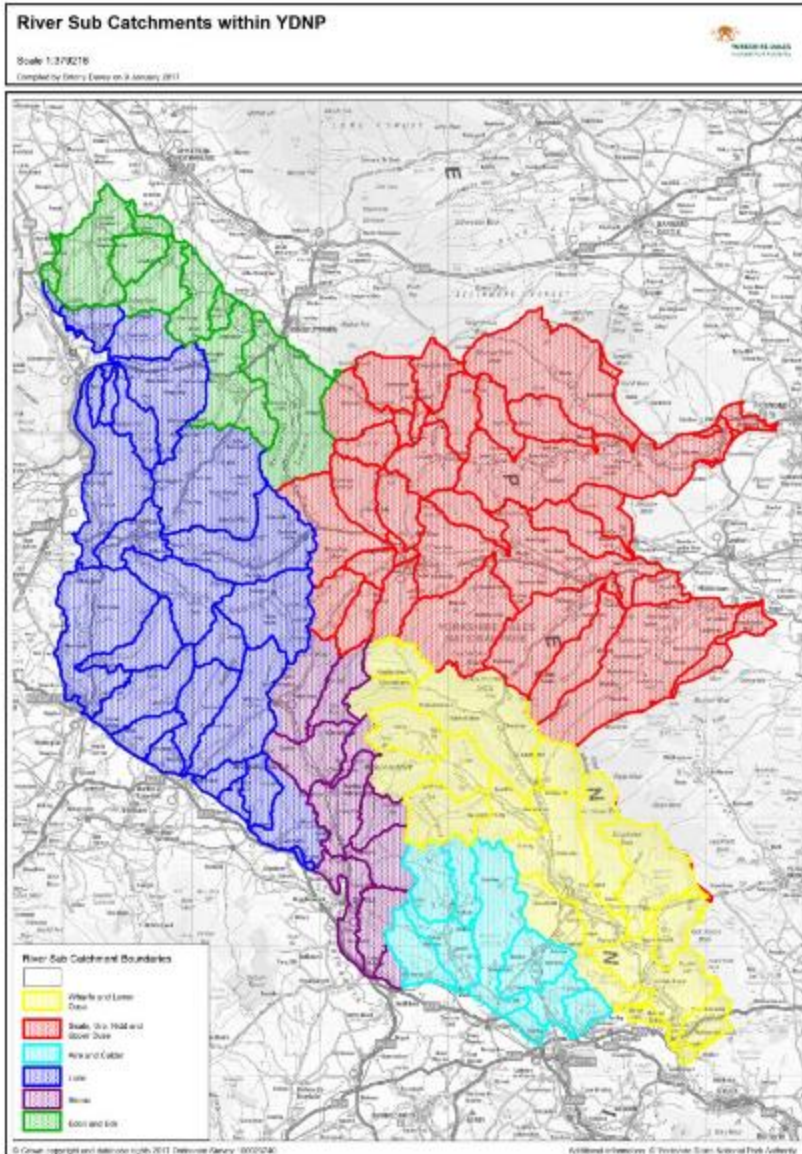


Natural Flood Management in the YDNP



Rivers which have their source in the YDNP with flooding impact outside YDNP



- Eden – Appleby & Carlisle
- Lune – Sedbergh & Lancaster
- Ribble – Clitheroe & Ribchester
- Aire – Skipton, Keighley & Leeds
- Wharfe – Ilkley, Otley & Tadcaster
- Ure & Swale – Ripon & York



Natural Flood Management

- “Working with the natural environment to manage sources and pathways of flood water through; restoration, enhancing natural features and slowing water in the uplands”





How are we (YDNPA) involved?

Strategic initiatives:	Cumbria Floods Partnership Leeds City Region Catchment Based Approach NYCC strategic flood risk assessment Defra NFM initiative
Scientific research:	Integrated Catchment Solutions Program (iCASP) Q-NFM (Lancaster Uni)
Local initiatives:	Wensleydale Project NFM handbook for farmers Countryside Stewardship Facilitation Fund farmer groups Slowing the flow – River Lune Supporting other organisations & projects

Wensleydale Project

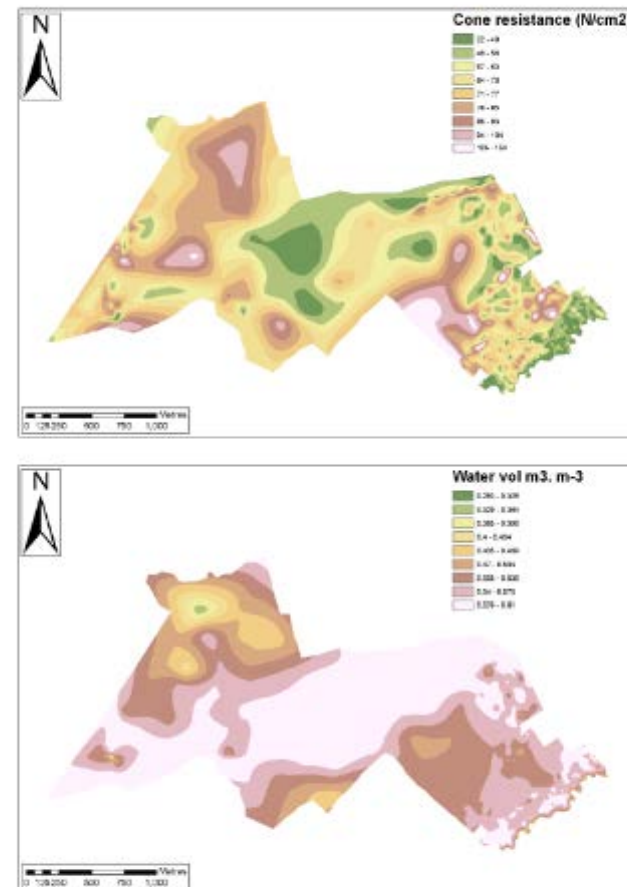
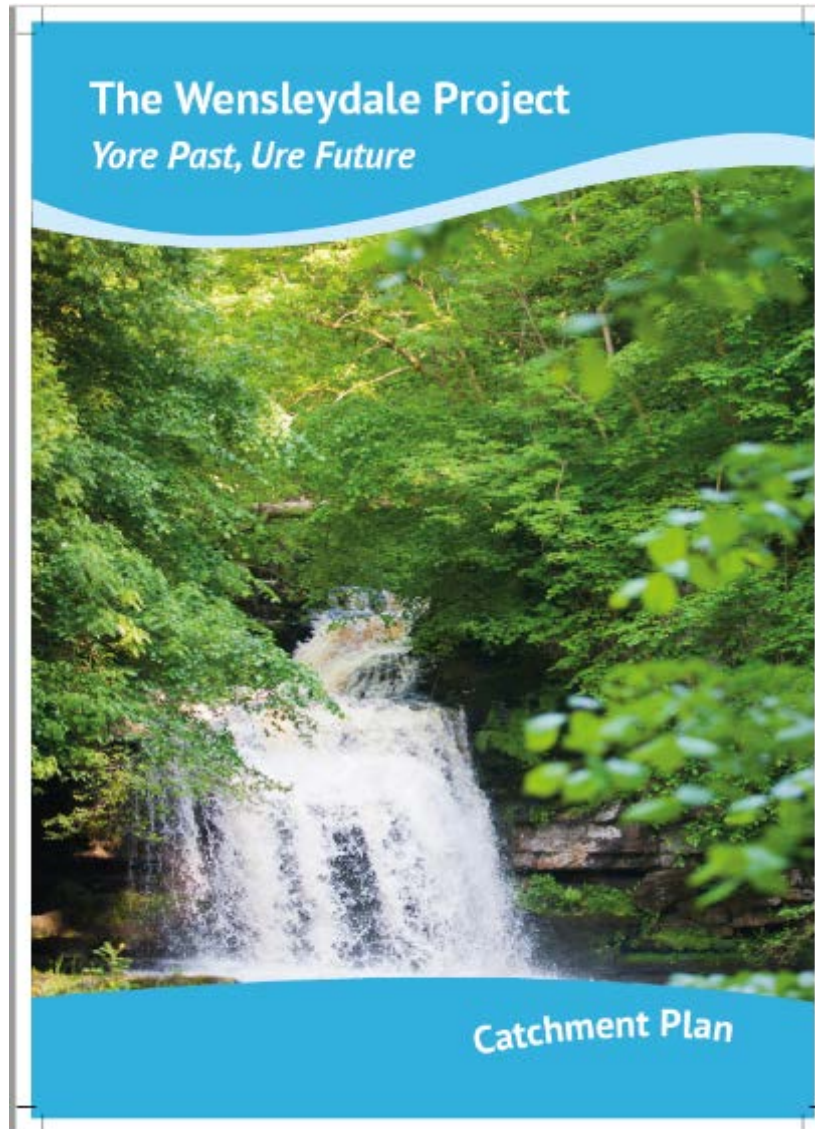


Figure 3.2 Compaction and soil moisture across Howsyke Farm, February-March 2015

NFM handbook for farmers

Natural Flood Management Measures – a practical guide for farmers



YORKSHIRE DALES
National Park

one of Britain's breathing spaces



Possible locations of natural flood management measures within the Yorkshire Dales National Park landscape

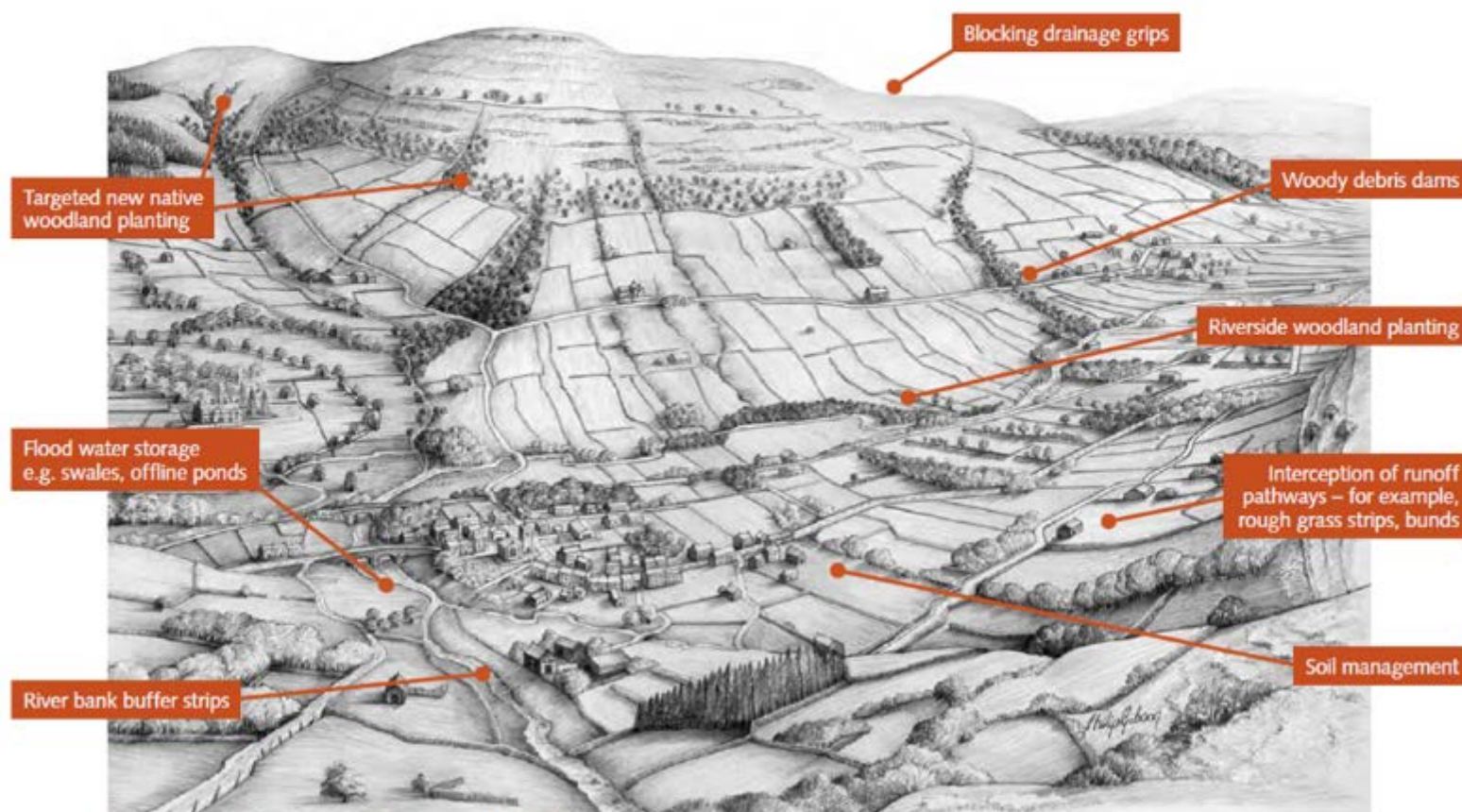


Illustration: Phil Gibson Design © Yorkshire Dales National Park Authority



IMAGES © DAVID HICKONS

Intervention treatments: Level 3

Floodplain restoration

While natural flood management measures associated with land management seek to reduce flood water generation, natural flood management measures in the river channel or on its bank or floodplain seek to improve the ability of rivers to manage those floodwaters.

Scottish Environment Protection Agency (SEPA), Natural Flood Management Handbook, 2016

Restoring the connection between a river and its floodplain provides a valuable contribution to natural flood management, allowing floodwater to spill naturally onto land to provide significant flood storage, reducing risk to lives and property further downstream. The mid and lower parts of the river system, where the river enters the flatter floodplain, are the most appropriate areas.

Restoration always needs to be carefully planned by specialist water engineers and ecologists as it will influence the behaviour of the flow of floodwater over a wide area. It will need detailed computer modelling and design, and will require planning and other permissions and consents. It is likely to be high cost and need specialist contractors.

Initial advice as to a site's suitability can be given by local Rivers Trusts (RT), Environment Agency (EA) or Yorkshire Dales National Park Authority (YDNPA) staff, and early contact is highly recommended.

River and floodplain restoration encompasses a range of different techniques which are often used in conjunction. They include restoring meanders and removal or setting back of flood banks, often together with habitat creation such as wetlands, habitat for breeding and wintering waders, and wet woodland.



Summary of consents

Guideline consent required for each treatment level and type (consent required for treatments along major rivers may vary).

Intervention treatments	Pre application consultation & consents		Recommended consultation			Grant funding		Affect on schemes ^a	
	Planning permission: GPDO or full planning permission	Land drainage, main river works	Historic environment (YDNPA)	Wildlife (YDNPA)	Hydrological specialist support	Available	What/who	BPS	ES, CS
Level 1									
Increasing soil permeability – reducing soil compaction	N	N	Y ^b	N	N	N		N	N ^c
Creating and managing buffer strips	N	N	N	N	N	Y	CS	Y	Y
Planting and managing hedgerows	N	N	N	N	N	Y	CS, YDMT	Y	Y
Using trees	N	Y ^b	Y	Y	N	Y	CS, FC, YDMT, RT, YDNPA	Y	Y
Winter cover crops	N	N	N	N	N	Y	CS	N	N
Cross drains in farm tracks	N	N	N	N	N	Y	CS	N	N
Level 2									
Bunds and detention basins	Y	N	Y	N	N	Y	CS	N	Y
Swales	Y	N	Y	Y	Y	Y	CS	Y	Y
Sediment traps	Y	N	Y	N	N	Y	CS	Y	Y
In-channel barriers	N	Y	N	N	N	Y	CS	N	N
Offline flood storage pond (permanent structure)	Y	N	Y	Y	Y	Y	CS	Y	Y
Blocking moorland drainage grips	N	Y	Y	Y	Y	Y	CS	Y	Y
Level 3									
Restoring meanders	Y	Y	Y	Y	Y	Y	EA	Y	Y
Reconnecting the river with its flood plain	Y	Y	Y	Y	Y	Y	^a CS, EA	N	Y

KEY

Basic Payment Scheme (BPS)
Countryside Stewardship (CS) scheme
Environment Agency (EA)
Environmental Stewardship (ES) scheme
Forestry Commission (FC)

General Permitted Development Order (GPDO)
Local Rivers Trust (RT)
Wildlife Trust (WT)
Yorkshire Dales Millennium Trust (YDMT)
Yorkshire Dales National Park Authority (YDNPA)

^aApplies if you receive payment from the schemes listed

^band^c Depends on which machinery is used – yes, for subsoiler and evert litter

^cIf tree planting is within 20m of a main river

^aCS grant funding available if river is designated SSSI

CS Facilitation Fund farmer groups

A fund to support people and organisations that bring farmers, foresters, and other land managers together to improve the local natural environment at a landscape scale



5 separate farmer groups across the YDNP focussed on Natural Flood Management (NFM):

Ribblesdale – led by YDMT

Swaledale – led by Dales Farmer Network

Wharfedale – led by Yorkshire Dales Rivers Trust

Lunesdale and Wensleydale – led by YDNPA

Total of 116 farmers involved

Total area of 26600 ha



Wensleydale NFM Facilitation Fund Group

(Natural Flood Management)

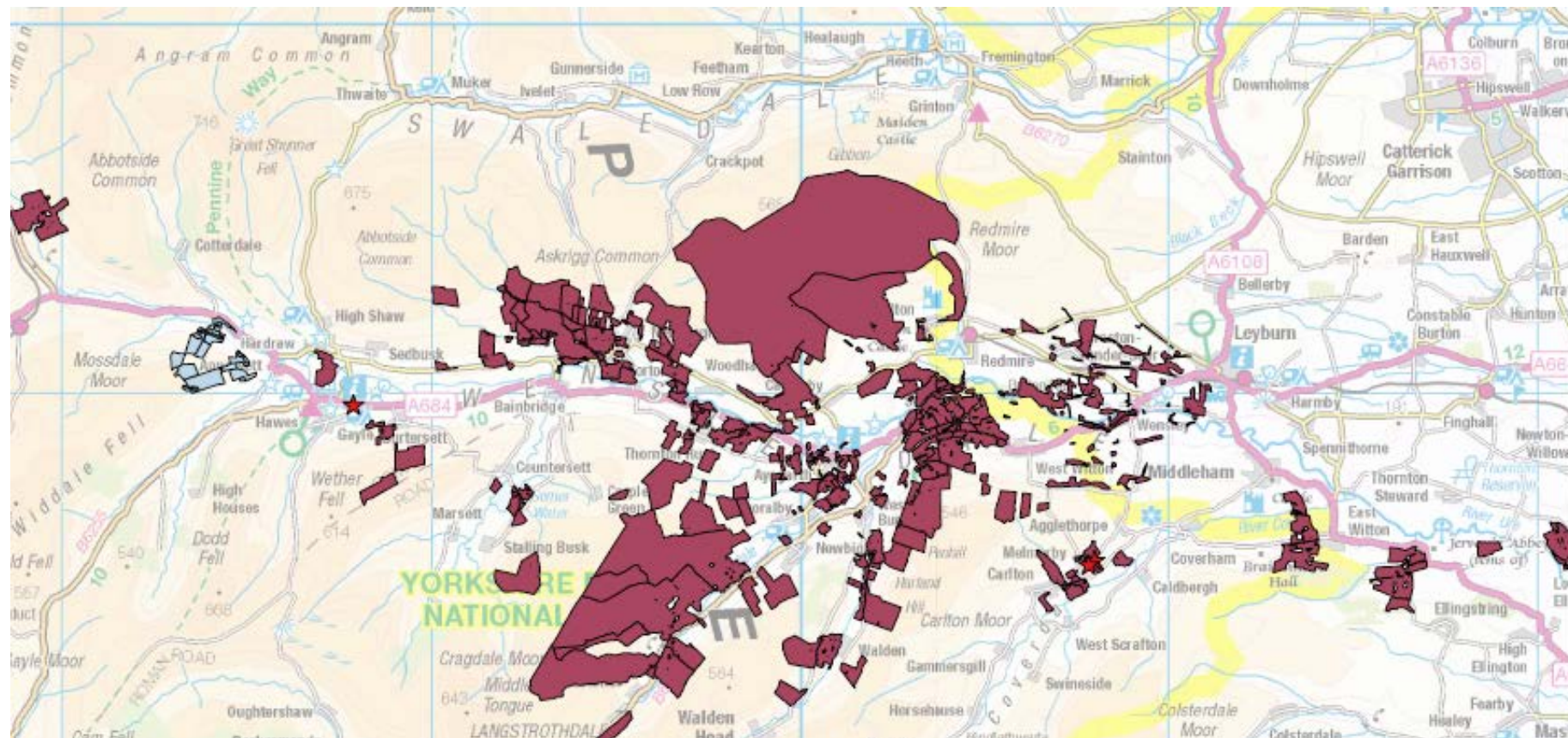
Set up Spring 2017 (3 year project) involving 35 Members in Mid-Lower Wensleydale, Bishopdale and Waldendale



Wensleydale NFM Facilitation Fund members



YORKSHIRE DALES
National Park Authority



Benefits of getting involved?

- Farmer led
- Access to training and advice based on agreed needs
- Share ideas, be innovative
- Advice and support to help prepare and apply for Countryside Stewardship (CS)
- Up to 20% boost to CS application score
- Support for all members whether currently in a scheme or not.
- Aim to help the farm business by reducing costs, maximising CS income and attracting additional funding into the project area – directly and through enhanced profile

Partnership working

Steering Group membership



- **4 farmers/landowners**
- **The Farmer Network** - a not for profit company that provides help and support to farmers and their businesses
- **Yorkshire Dales Rivers Trust** - Small charity formed in 2004, affiliated member of the National Rivers Trust
- **Facilitator**

Group events held in Year 1

- 22nd May 2017 – **First meeting of the Wensleydale group**
- 6th November 2017 – **CS Mid Tier workshop (Inc. Water Capital grants plus and Hedgerows & Boundaries Scheme)**
- 8th November 2017 - **Soil Health & Management Workshop with Charlie Morgan**

“We were pleased to hear that there was people available to help us through the bureaucracy of the claims system”

“a good way of meeting like-minded people sharing a common interest”

“Ideas were flowing freely and there was a willingness to learn”



11 Mid Tier + 1 Higher Tier Countryside Stewardship applications

Catchment Sensitive Farming (CSF) Plans:

- 4 Water Management Plans
- 8 Nutrient Management plans Inc. soil tests

4 Natural Flood Management (NFM) Farm Plans

1 Woodland Creation applications

2 Small woodland creation schemes