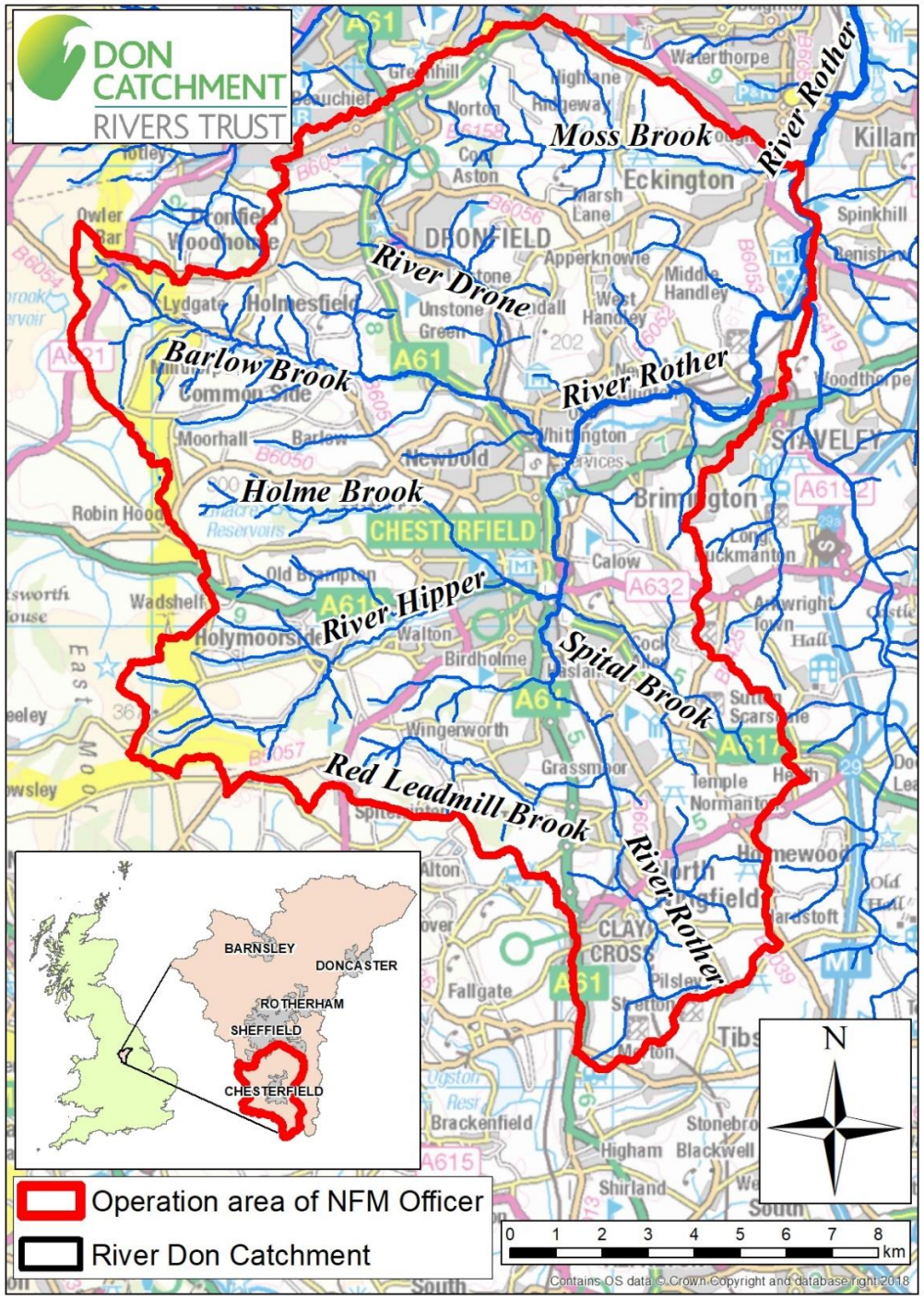
Identifying NFM Opportunities in the Upper Rother Catchment

Debbie Coldwell, DCRT

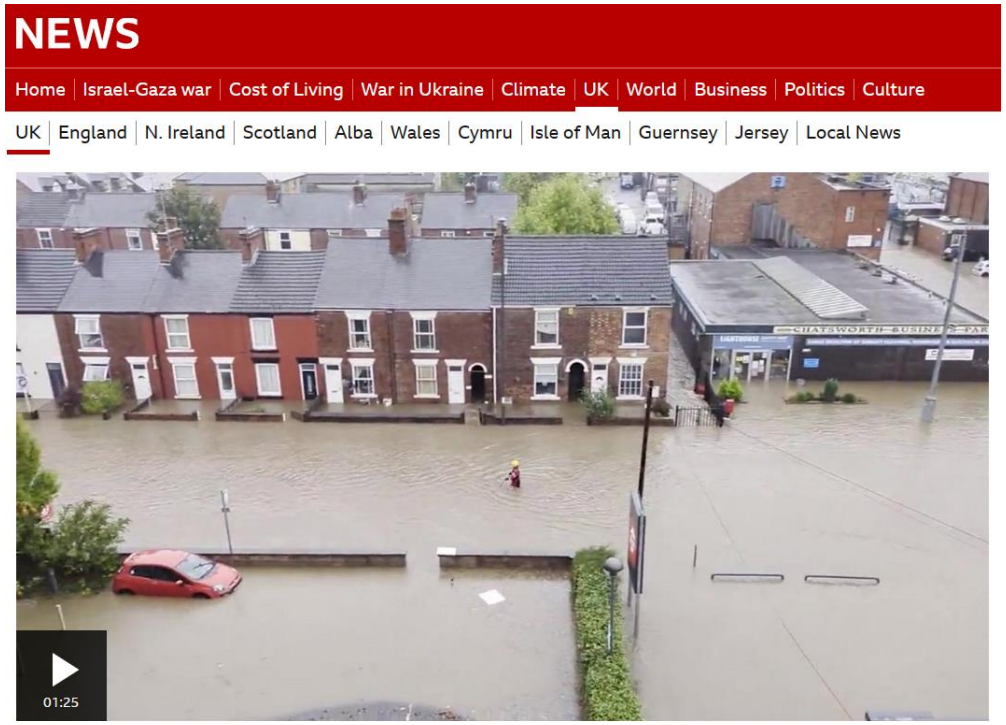
DON CATCHMENT RIVERS TRUST

iCASP
Integrated Catchment Solutions Programme



Upper Rother Catchment

- Southeast subcatchment of the Don Catchment
- Major flood events – 2007, 2019, 2023



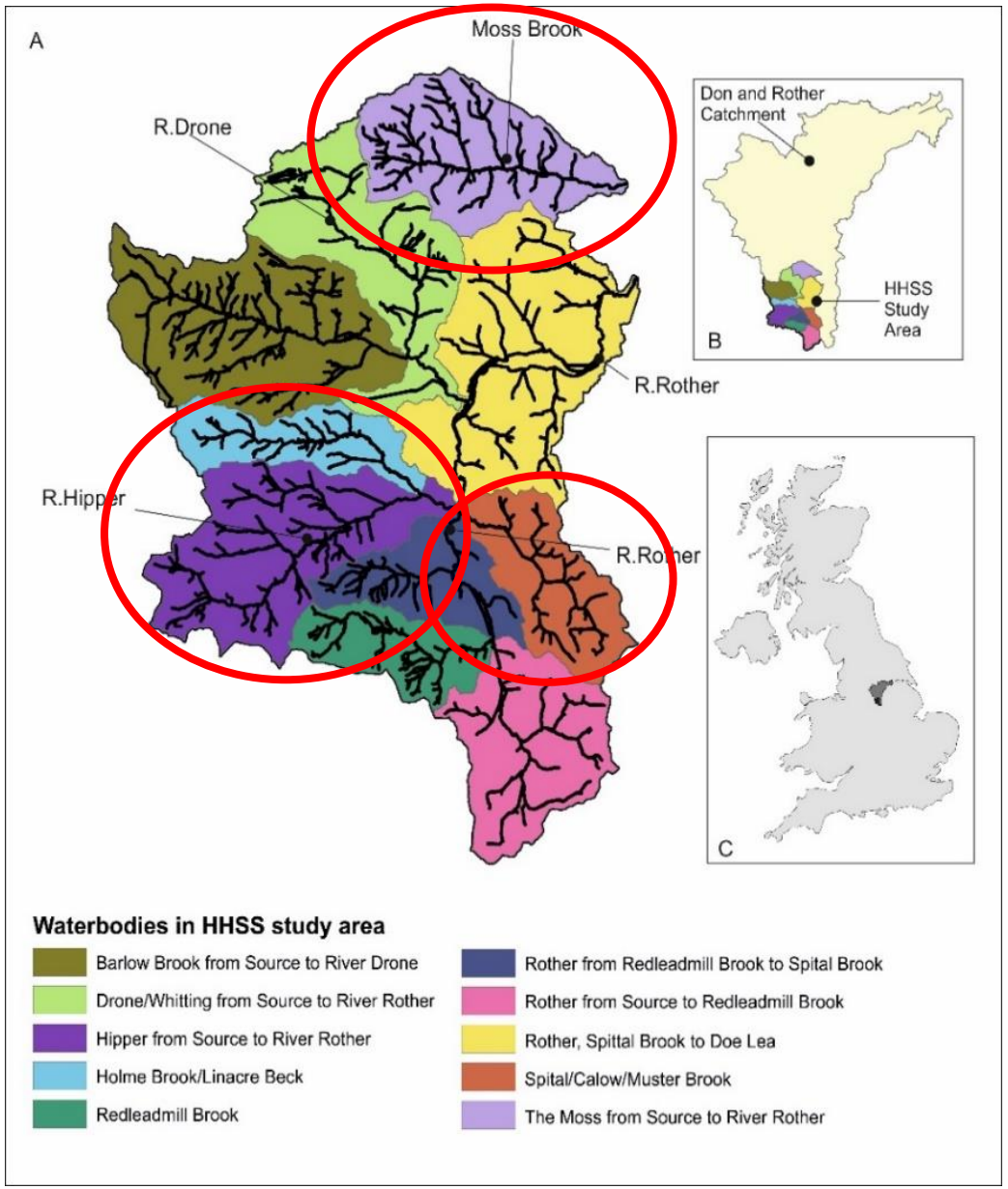
'Catastrophic' Storm Babet wreaks havoc across UK

iCASP Project Aims

- Identify priority areas for NFM delivery
- Improve understanding of most effective NFM measures
- Allow DCRT to take a strategic approach to NFM

NFM opportunities in the Upper Rother

- SD-TOPMODEL
  - Rainfall-runoff model
  - Elevation, land cover and rainfall/runoff to model flow
- 3 sub-catchments: Moss Brook, River Hipper and Spital Brook
- 10% increase of:
  - soil permeability
  - water storage
  - surface roughness
- Impact at catchment and subcatchment scales on
  - Flow peaks
  - Flow volumes
  - Time to peak



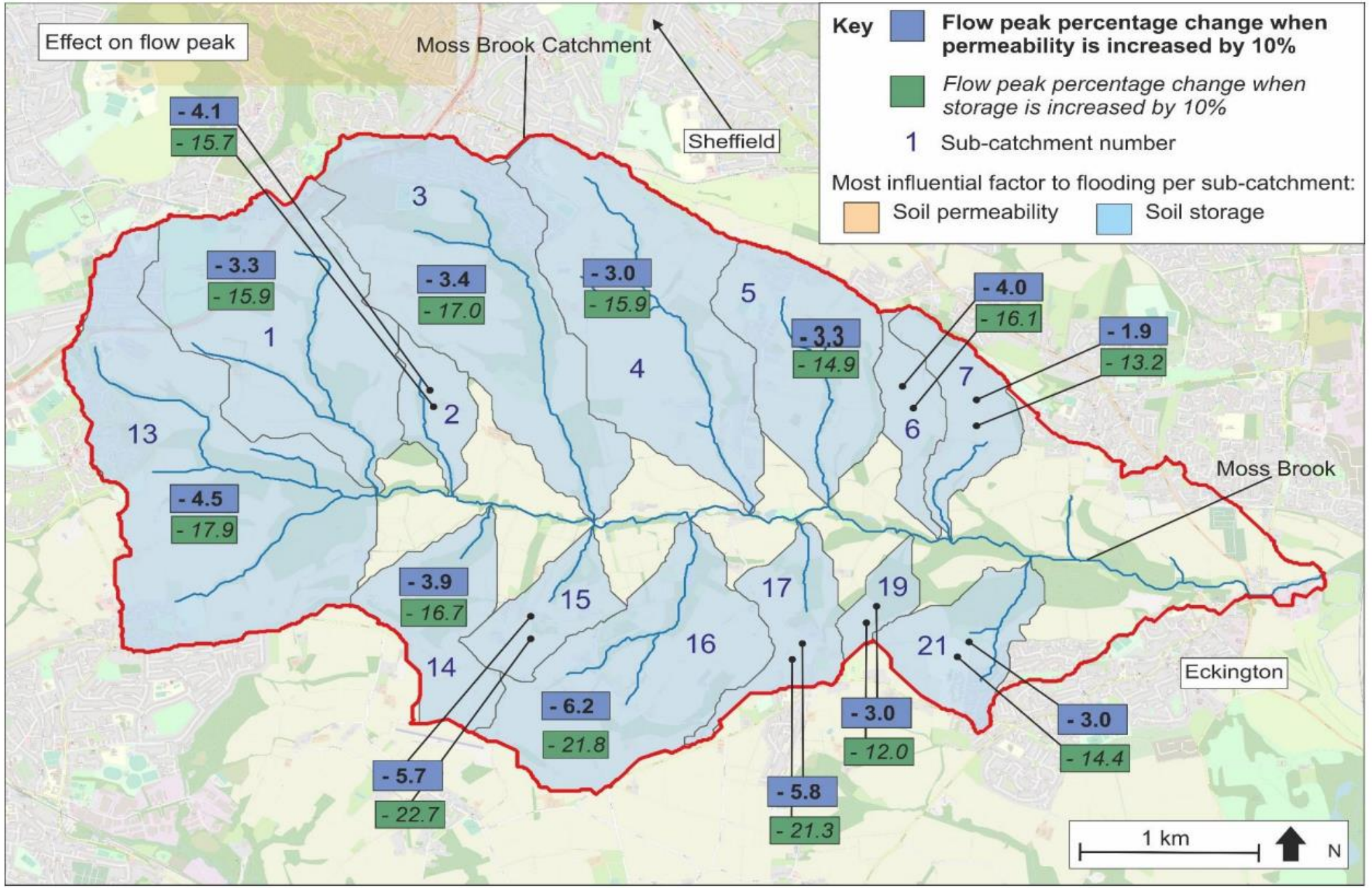


Figure 2: Map showing mean impact (% change) of changing permeability and storage by 10% on flow peaks.

Next Steps

- Expand on existing schemes
- Deliver strategic, catchment wide NFM
- Currently applying for funding

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More about this project, including final reports:
[iCASP website - Upper Rother project]

Working in partnership to deliver a sustainable future for the Skell Valley

Nabil Abbas, Project Manager

SKELL VALLEY PROJECT

Co-led by National Trust, Nidderdale Area of Outstanding Natural Beauty

Made possible with Heritage Fund

Thanks to National Lottery Players

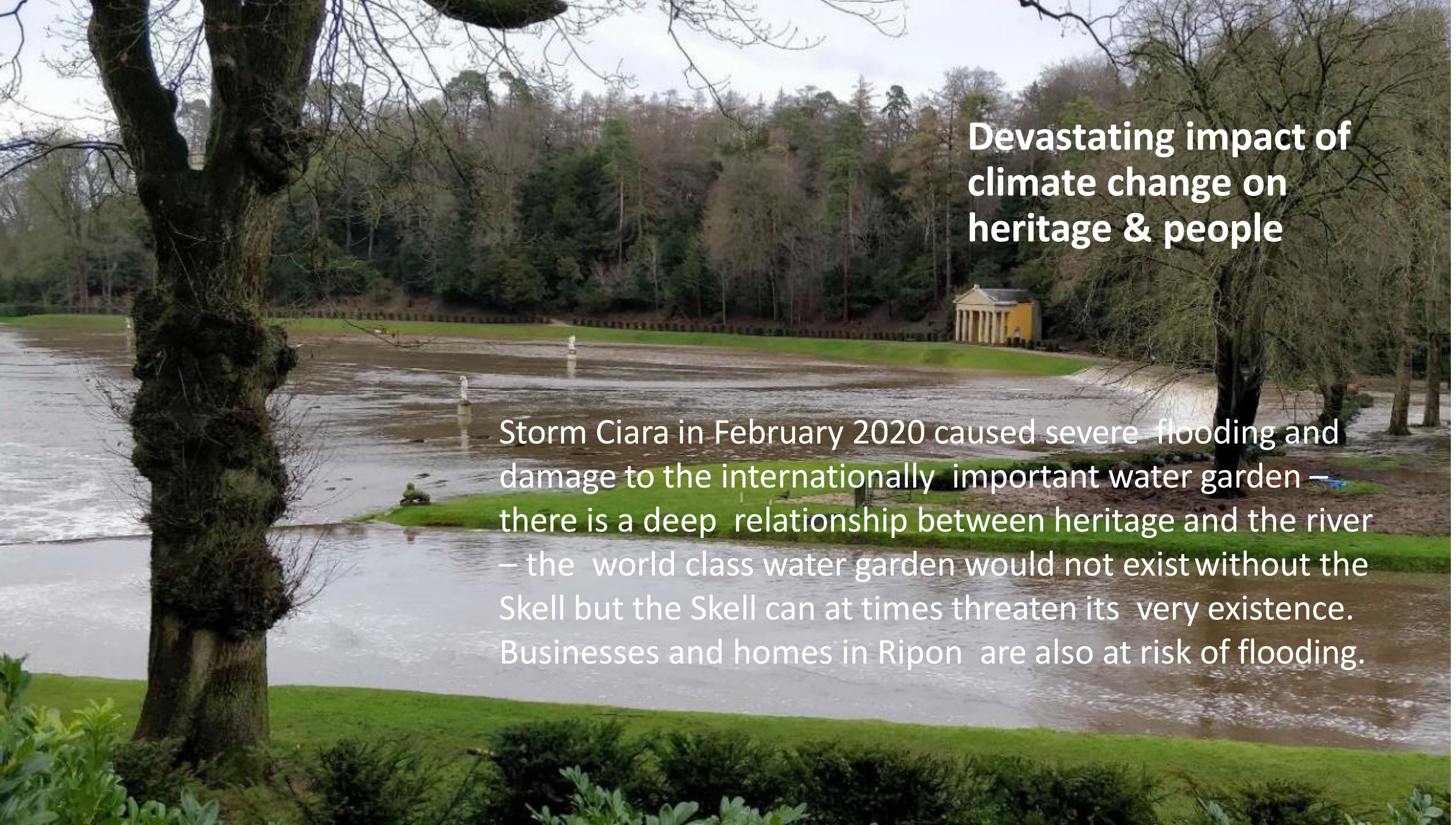
European Union
European Regional Development Fund

NORTHERN POWERHOUSE
HM Government

SKELL VALLEY PROJECT

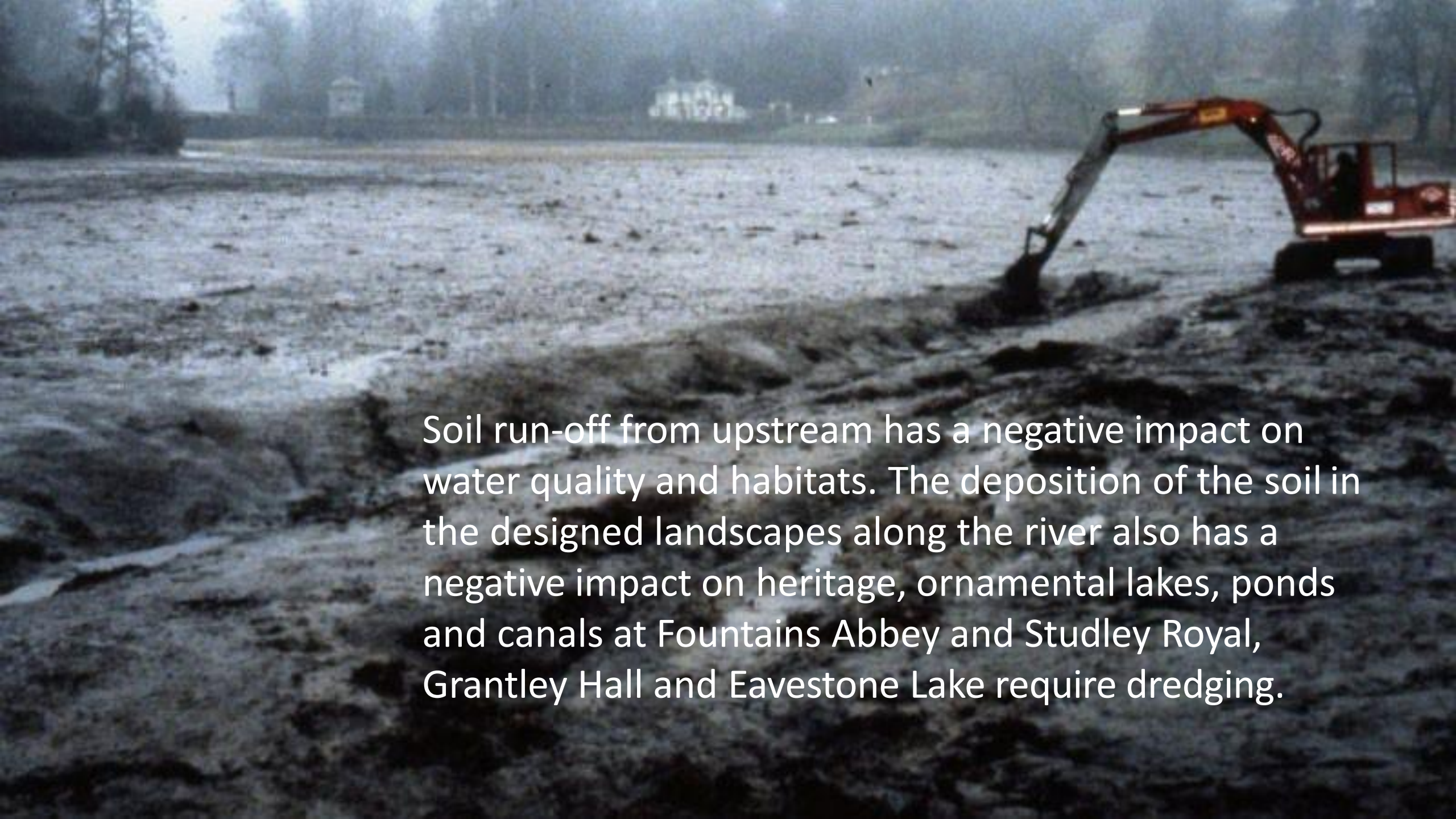
Co-led by National Trust Nidderdale Area of Outstanding Natural Beauty

- NT and Nidderdale AONB lead a partnership of 16 organisations
- 4-year project
- £2.5 million funding
- 15 separate projects
- 4 project staff
- Many volunteers



Devastating impact of climate change on heritage & people

Storm Ciara in February 2020 caused severe flooding and damage to the internationally important water garden – there is a deep relationship between heritage and the river – the world class water garden would not exist without the Skell but the Skell can at times threaten its very existence. Businesses and homes in Ripon are also at risk of flooding.



Soil run-off from upstream has a negative impact on water quality and habitats. The deposition of the soil in the designed landscapes along the river also has a negative impact on heritage, ornamental lakes, ponds and canals at Fountains Abbey and Studley Royal, Grantley Hall and Eavestone Lake require dredging.

Project Objectives

- Landscape is resilient
- Nature thrives
- Heritage is celebrated
- People are empowered

Skell Valley Project Team
Made possible with
Heritage Fund

Working together

Local community

Skell Valley Farmers

Environment Agency

National Trust

Nidderdale AONB

Friends of Hell Wath Local Nature Reserve

North Yorkshire Council

Ripon Museums Trust

Eavestone Estate

West Yorkshire Archive Service

Nidderdale AONB Joint Advisory Committee

Yorkshire Dales Rivers Trust

Natural England

Harrogate & District Community Action

Ripon YMCA

Forestry Commission

Grantley Hall Estate

Volunteers

Ripon in Bloom

Ripon Walled Garden

Grantley, Sawley, Skelding and Eavestone Parish Council

A straightened channel...

A natural, meandering river...

...lacking life

...full of wildlife

Protecting watercourses

Track improvements

New ponds

Leaky dams – slowing the flow

Hedgerow planting & restoration

Woodland Management & Restoration

NFM monitoring/innovation

- ICASP river flow & sediment monitoring
- NFM Payment by Results scheme
- Private Finance – working with North Yorks LEP & ‘Local Investment in Natural Capital’ project
- YDRT Watery Wildlife Project

Habitat restoration: Hell Wath

Hug An Ancient Tree

Researching & restoring heritage

Partnership working

Working alongside partners to engage people with the project in different ways:

1. Nature on Your Doorstep
2. Digging Deep in the Archives
3. Power of 10 project

1. Nature on Your Doorstep

Skell Valley Project team are supporting local groups to improve public greenspaces:

- Workhouse Museum
- Ripon Walled Garden
- Ripon YMCA
- Picking Gill nature reserve

- Ripon Temple Gardens
- Hell Wath LNR

Photo Exhibition

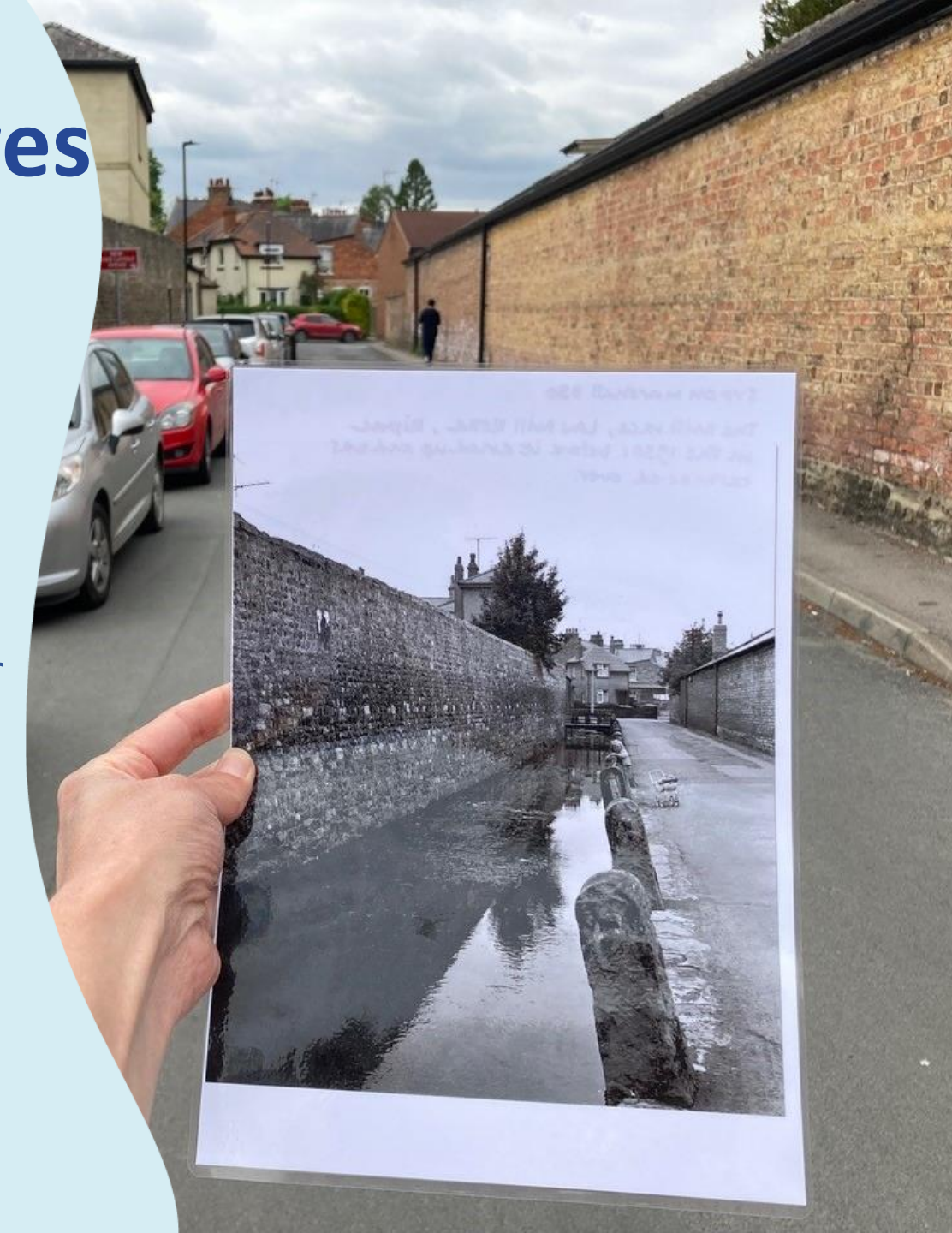
- Competition for public run with Photo Soc.
- Outdoor display at Ripon Workhouse Museum
- Oct-Dec 2023
- Pop-ups in 2024

RIPON MUSEUMS

RIPON CITY PHOTOGRAPHIC SOCIETY

2. Digging Deep in the Archives

- **West Yorkshire Archive Service are delivery partner**
- 70 remote volunteers gave over 780 hours of their time to transcribe 735 docs
- Over 216,500 words have been added to archive descriptions in the catalogue
- 7 oral history volunteers have recorded 12 interviews so far
- 4 pop-up exhibitions, community reminiscence day held in local community
- 2 study weeks held in the archive
- Research will feed into interpretation for new walking trails



West Yorkshire Archive Service

3. Volunteering City of Ripon

- Volunteering Development Officer employed for 18 months with SVP funding to support volunteering in Ripon
- Survey of vol/com groups identified need for youth volunteering
- ‘Power of 10’ scheme developed
- Developed links with Ripon BID, Library, YMCA, Boroughbridge Lions, local schools, etc
- Young people have given over 1650 hours of volunteer time
- Harry achieved first 100 hours: named Ripon young volunteer of the year

H&DCA
Harrogate and District
Community Action

Volunteering City of Ripon

- Young people have given over 1650 hours of volunteer time
- Online training platform provided to 13 organisations, 80+ licences issued
- **HADCA have extended post until Dec 2023 & are seeking additional funding**

Publicity & media

In August 2022, the UK National Commission for UNESCO in partnership with the GREAT Campaign and UK Delegation to UNESCO, visited the World Heritage Site, owned and operated by the National Trust, to see the Skell Valley project in action.

This case study forms part of a new report by the UK and Canadian Commission for UNESCO, UNESCO sites for sustainable development: realizing the potential of UNESCO designated sites to advance Agenda 2030.

Watch the video