

GROUNDWORK

CHANGING PLACES CHANGING LIVES



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www.groundwork.org.uk/northeast

Groundwork NE & Cumbria

- Our vision is a society made up of vibrant, healthy and green communities.
- Our mission is to enable communities and individuals to realise their potential:
 - Improve People's Prospects
 - Create Better Places
 - Deliver Greener Living and Working

WFD and River Restoration – Feasibility study for the EA to improve water quality and create water dependent habitat in the Upper Ouseburn catchment



Background and drivers for this river restoration project

- » The Ouseburn is 'heavily modified'
with steep banks, a straightened course, with physical modifications – weirs, walls, bridges
- » Poor for fish, macro-invertebrates and phosphate - is failing the Water Framework Directive
- » It's within a development hotspot - housing, airport expansion, business development land

Partnership Approach

- » Environment Agency, Northumbrian Water, Tyne Rivers Trust, Newcastle City Council, Natural England, Newcastle University
- » Wider Engagement
 - Parish Councils, MPs, Councillors, developers, agents, planning consultants, landowners, farmers, Newcastle Airport, English Heritage

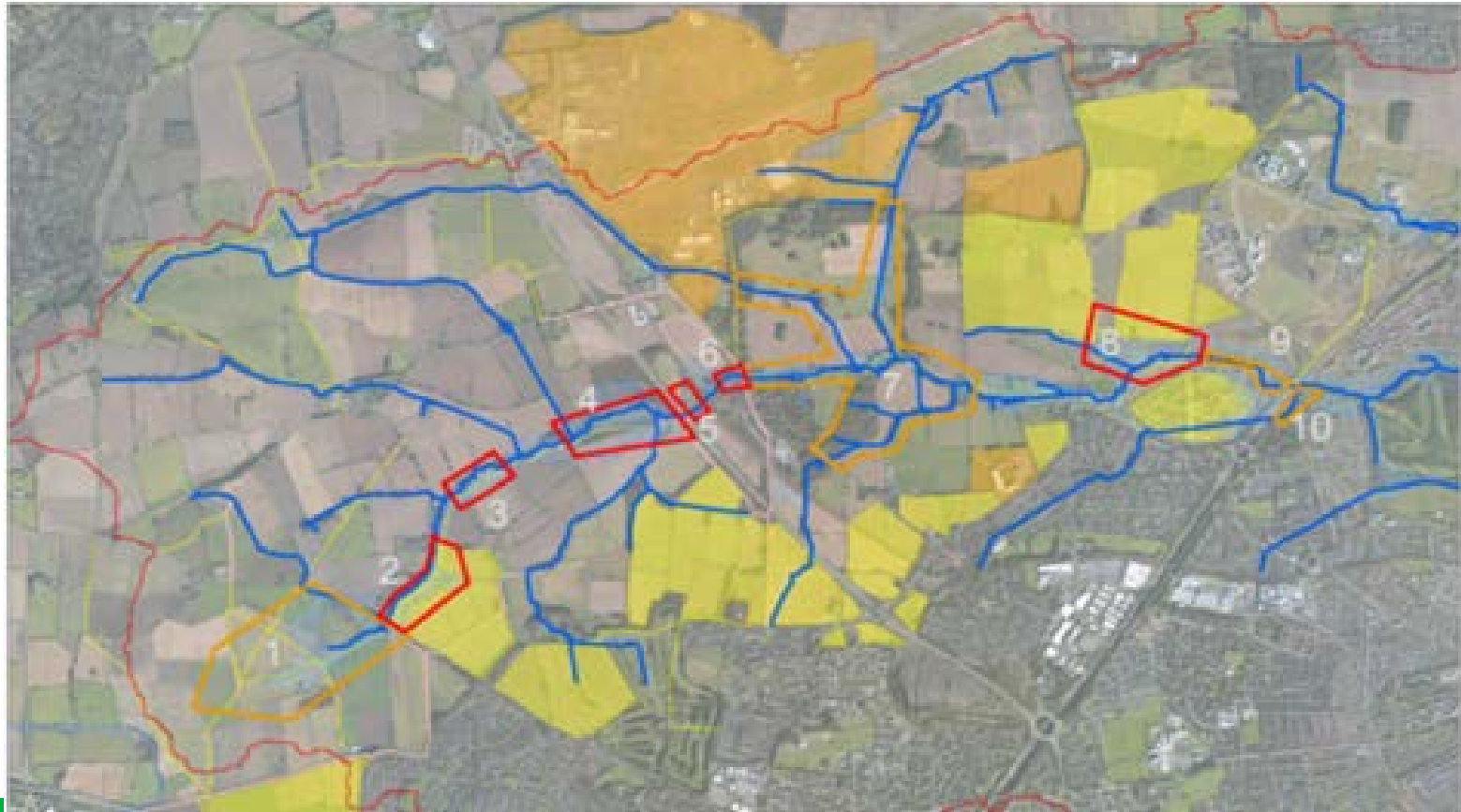
Ouseburn River Restoration Project

➤ To develop a suite of river restoration projects

2016-17 & 2017-18

- measurably improve the ecological status/ potential of the Ouseburn by 2021
- create 10ha of water dependent habitat
- improve surface water management within the catchment

ORRP Project sites with development sites



Year 1 Projects 2016 / 2017

- » Feasibility plan accepted by ORRP Board in May 2016
- » Revenue projects begin Dec 2016
- » Capital projects completed March 2017
- » Lengthy process to obtain all permissions:
 - Environmental Permits, landowner consent, planning permission, ecological assessments, geotechnical assessments

Rural Diffuse Pollution



Volunteering programme

- engage, enthuse and develop volunteering and conservation work along the river.
- River Rangers - NWL's volunteer river patrolling programme



SUDS education work

- to build a connection between schools and the river
- Links with STEM
- Private sector engagement



Heritage Grant application



Wagonway with Heel and Staith in Background



River water quality monitoring

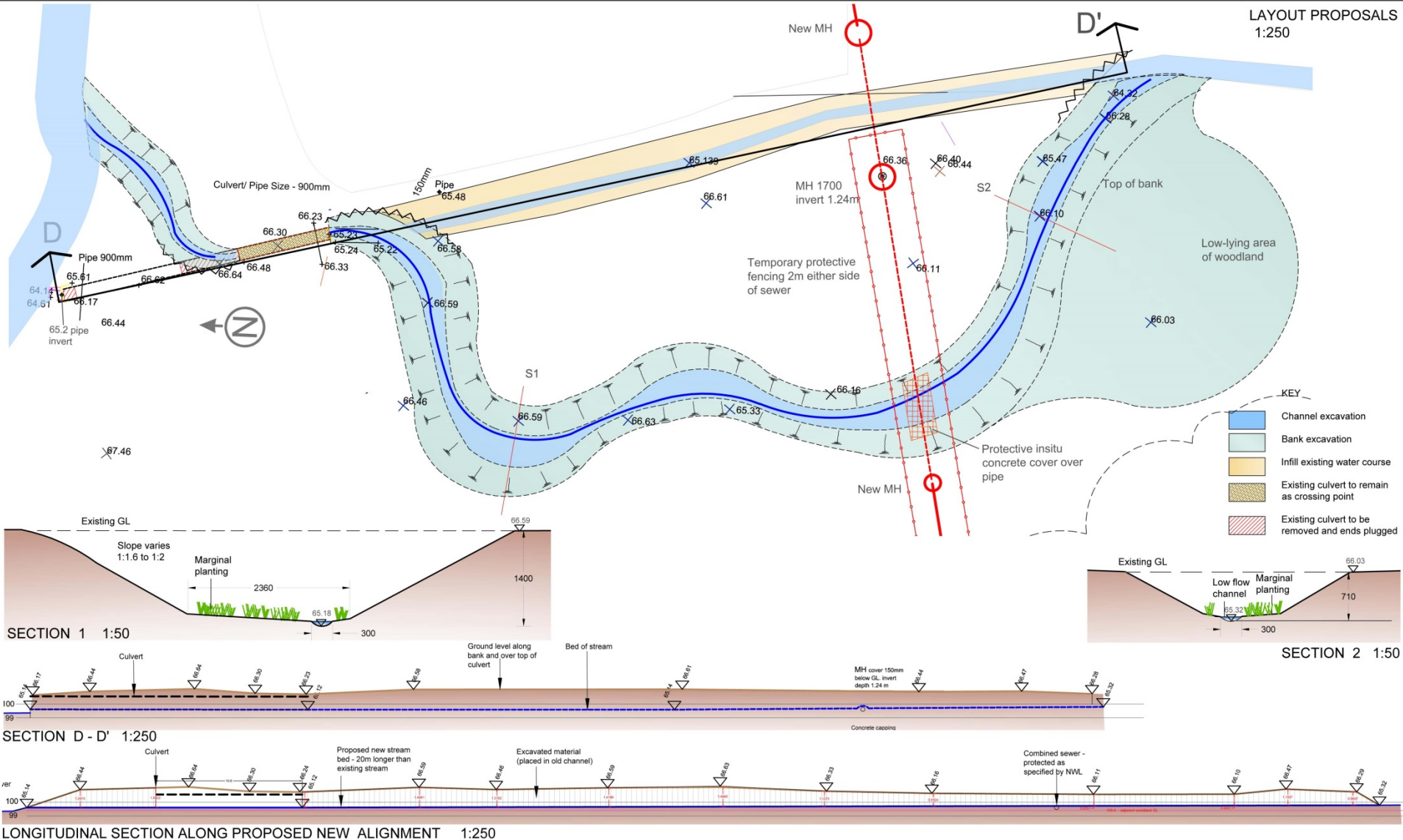
- Monitor changes to the water quality to quantify effects of mitigation works.
- River and tributary monitoring



Woolsington Pond

- remeander a tributary
- deculvert section of pipe
- expected outcome is to enable sediments carried from surrounding fields to be deposited within the stream system before entering the main river.





Woolsington Pond

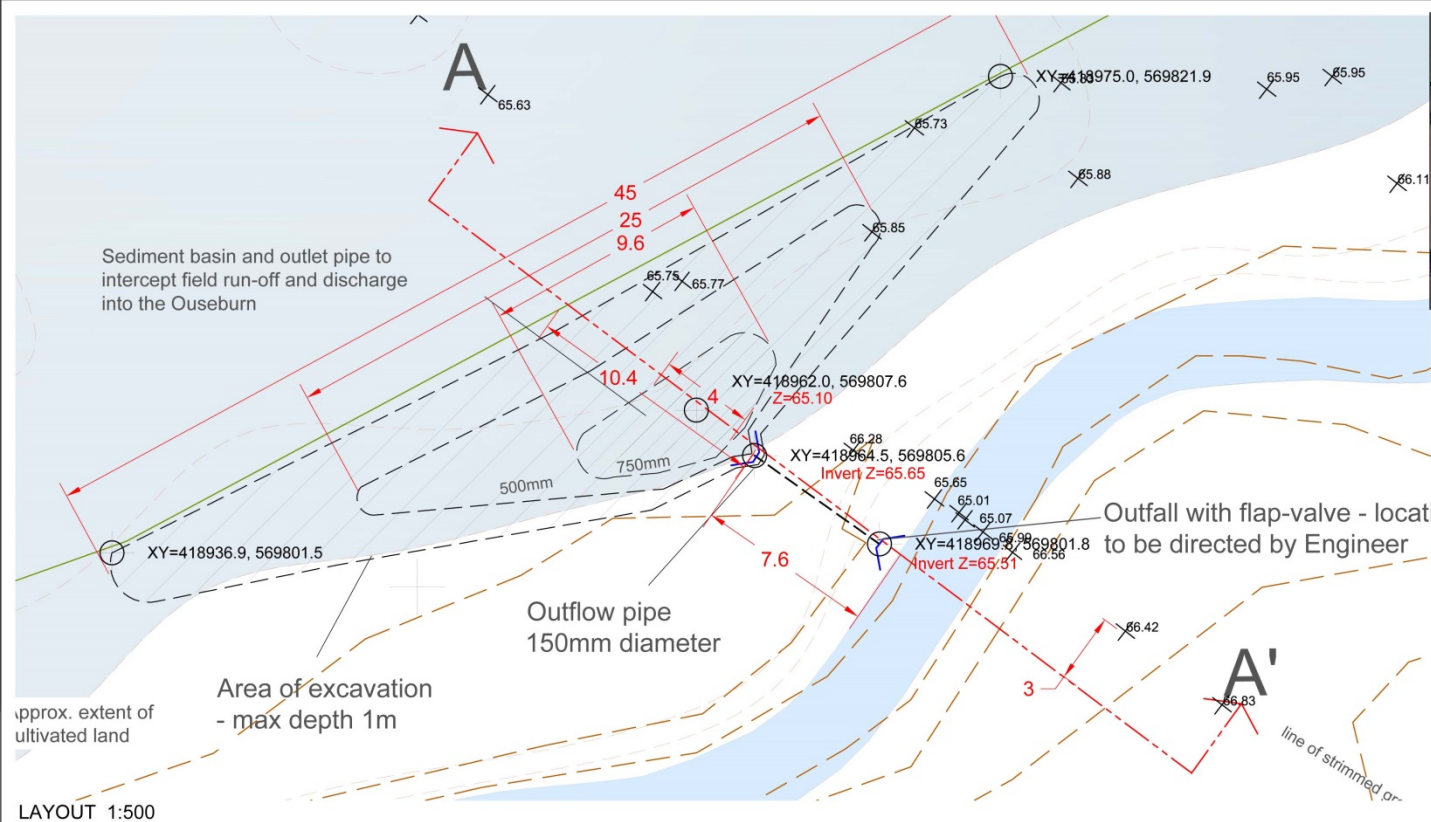
- Ouseburn riverbank reprofiling to a less steep profile
- expected outcome to enable the river at high flow to spread out at this point and to deposit agricultural sediment on the graded terraces.



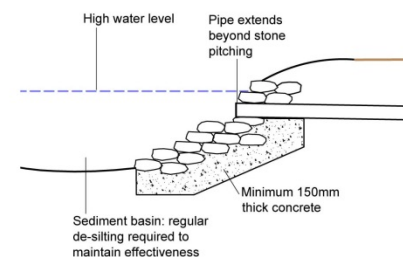
Sediment trap

- to install a one way valve into the field
- expected outcome is to prevent sediment flowing into the river

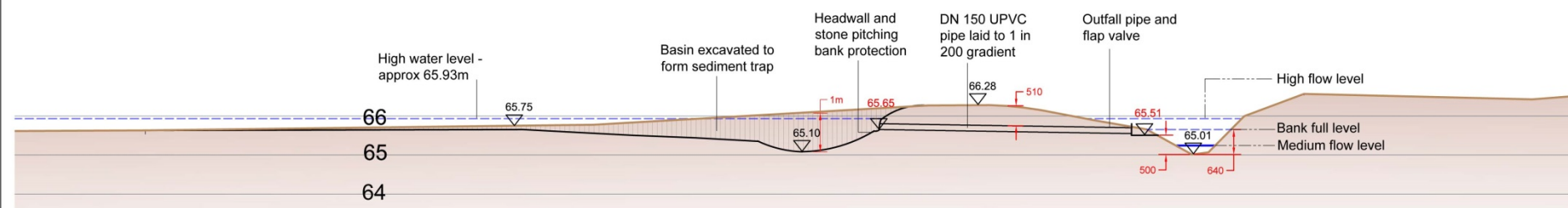




SITE LOCATION :
North bank of Ouseburn, West of A696



HEADWALL DETAIL 1:50



Year 2 projects 2017-2018

- Wet woodlands at source
- River at Callerton
- Butterlaw Meadow
- Continue work at Woolsington Pond
- A696 pond
- Ouseburn Meadow
- A1 widening



Aerial photo showing Floodzone 2



Topography (from LiDAR data)

River Restoration Area
Zone set aside to enable the river to be re-connected with its floodplain, with a mosaic of wetland and water dependent habitats along its course.

Re-profiling the river bed and banks to resemble a more natural channel cross-section would accommodate more space for water and greater variety of in-stream and riparian habitats.

The instream design would have a meandering shape similar to the original line of the river before it was modified and straightened

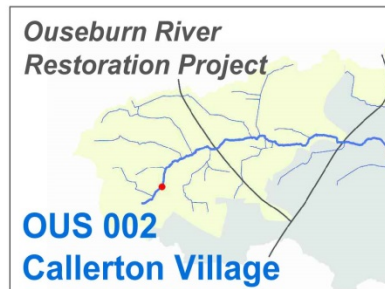
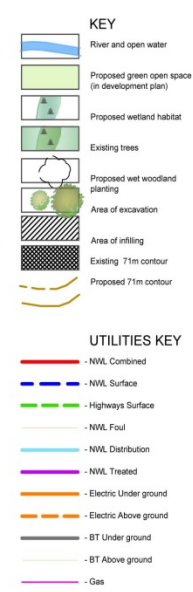
Green Open Space
Buffer zone to manage urban runoff and provide space for people to access and enjoy the countryside alongside a river restored to a more natural state.

Opportunities for SuDS and infiltration systems to filter urban run-off.

Areas of semi-natural habitat would function as links and corridors for movement of wildlife.

Woodland belts extending away from the river corridor would form important routes for wildlife connectivity

New Footpaths and cycleways linking up with existing RoW would allow people to experience the countryside and get close to water.



Summary of ORRP Achievements

- » Improve water quality and hydromorphology
- » Evidence based delivery - monitoring water quality and mitigation of diffuse pollution
- » Improve biological quality & habitat creation
- » Create opportunities for social, amenity and education involvement
- » Broad partnership with shared objectives

THANK YOU

GET IN TOUCH

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