

Dove Cliff Weir Removal: River Restoration or Heritage Vandalism?

Christopher Grzesiok / Paul Herickx
Fisheries Technical Specialist / Project Manager
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Project Objectives

1. Reducing the risk associated with the Environment Agency's assets* at this location
2. Restoring the River Dove beyond Dove Cliff Weir

* includes 2 weirs, a sluice gate and mill leat channel

This is Dove Cliff Weir...

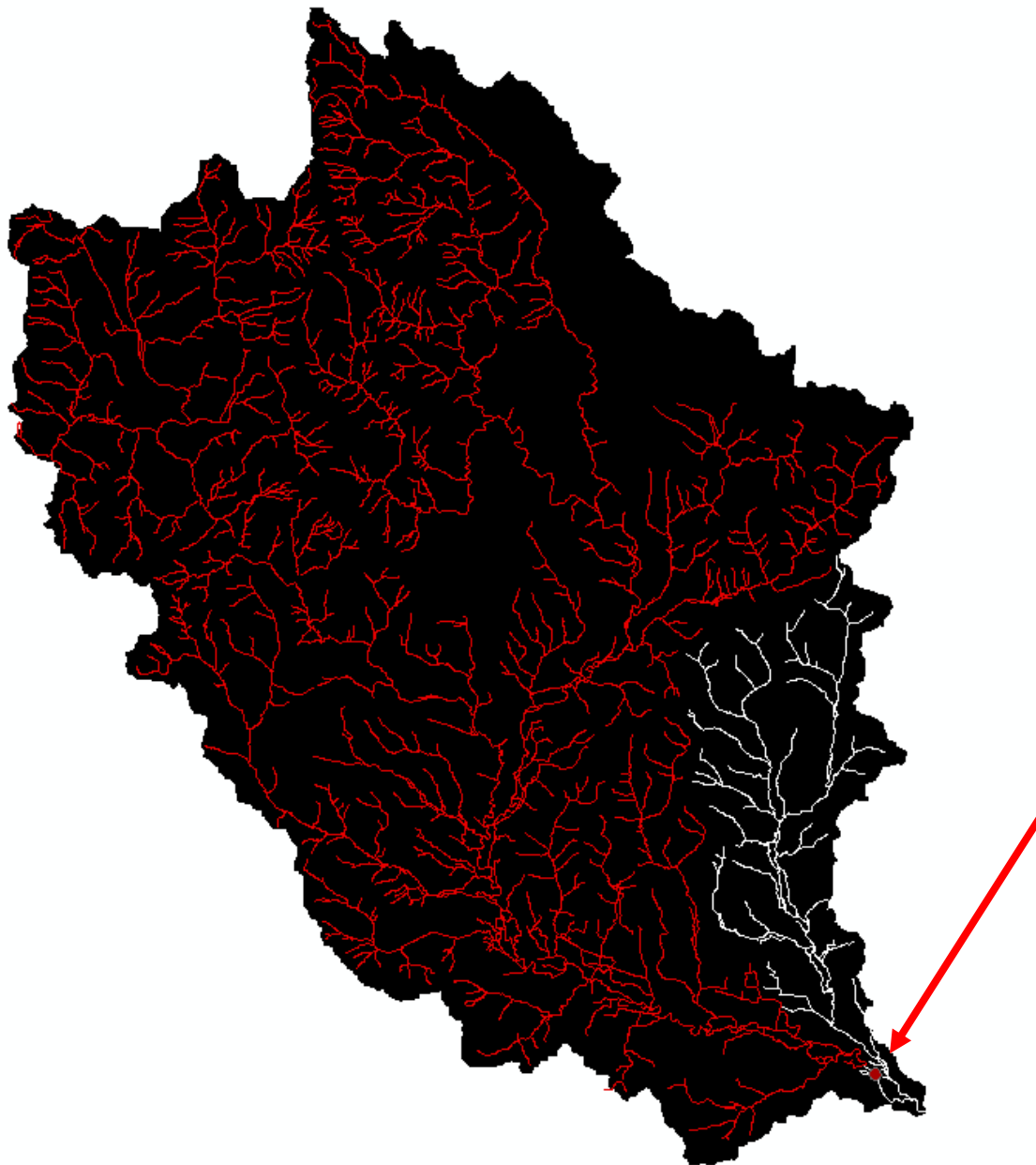


Why?

- It's in the UK's 25 year Environment Plan
- Salmon 5 Point Approach

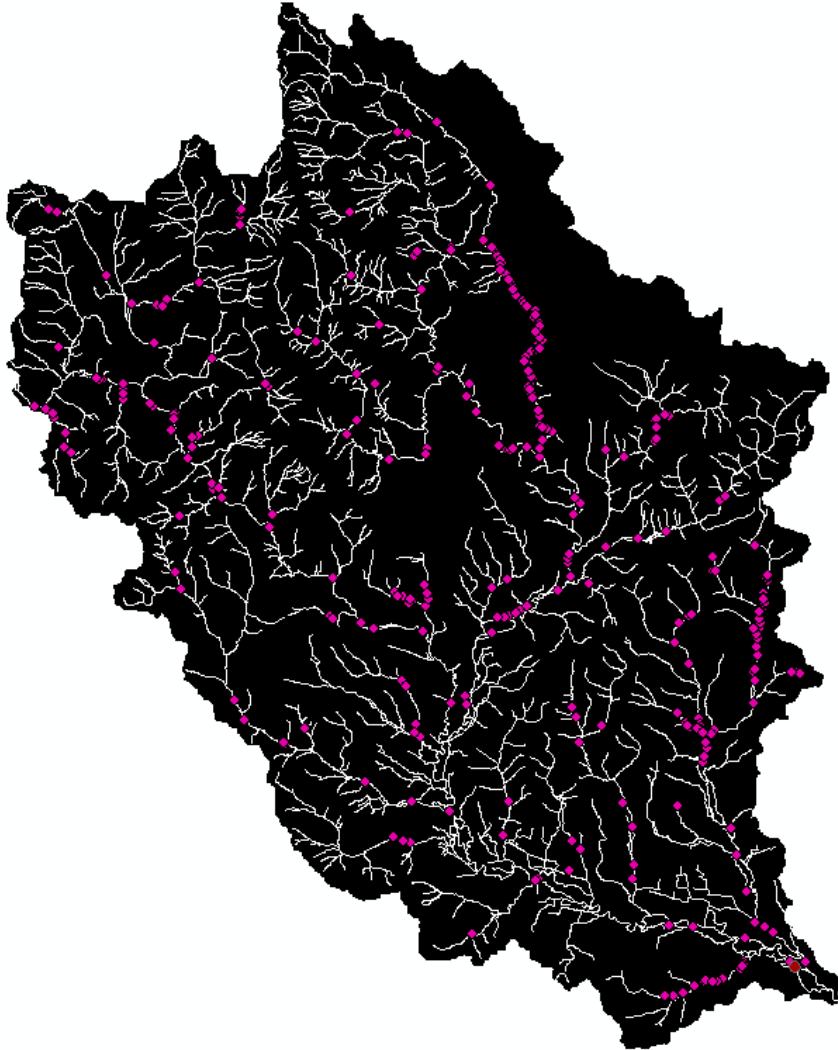


- Health and Safety Risk
- Redundant asset
- Ongoing financial costs



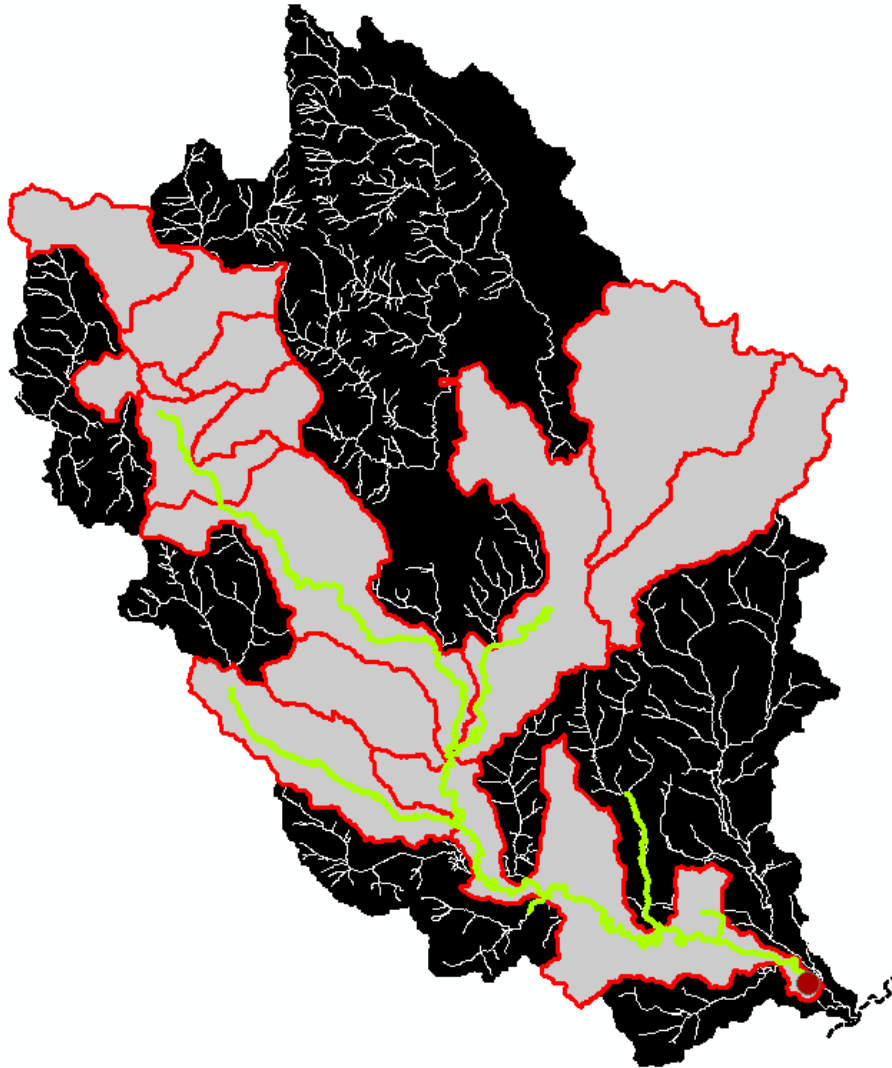
- On its own Dove Cliff currently completely blocks or delays ecological migration of up to 1187km, which equates to 90% of the catchment

What about all of the other barriers?



- there are currently 460 known barriers
- equates to 1 barrier every 2.87km
- 5 have formal fish passes
- 6 have been removed or fallen down
- 3 have easements
- 3 are currently in design or build for 2019/20
- 5 more are currently being developed within the catchment partnership
- = 22 / 460 (4.8%)

...and so what?



- Focussing on priority structures means that we are working towards opening up 46% of the catchment to free fish movement or 42% (550km) of river length by the end of 2020
- However, all of this success is reliant on one structure which we own...

Timeline

2009/10 - Feasibility Study

2010/11 - No funding

2011/12 - Design (Fish Pass)

2012/13 - Feasibility (Weir Removal) Heritage

2014/15 - No funding

2015/16 - Design of removal

2016/17 - Structural Survey of weir

2017/18 - Design of removal continued

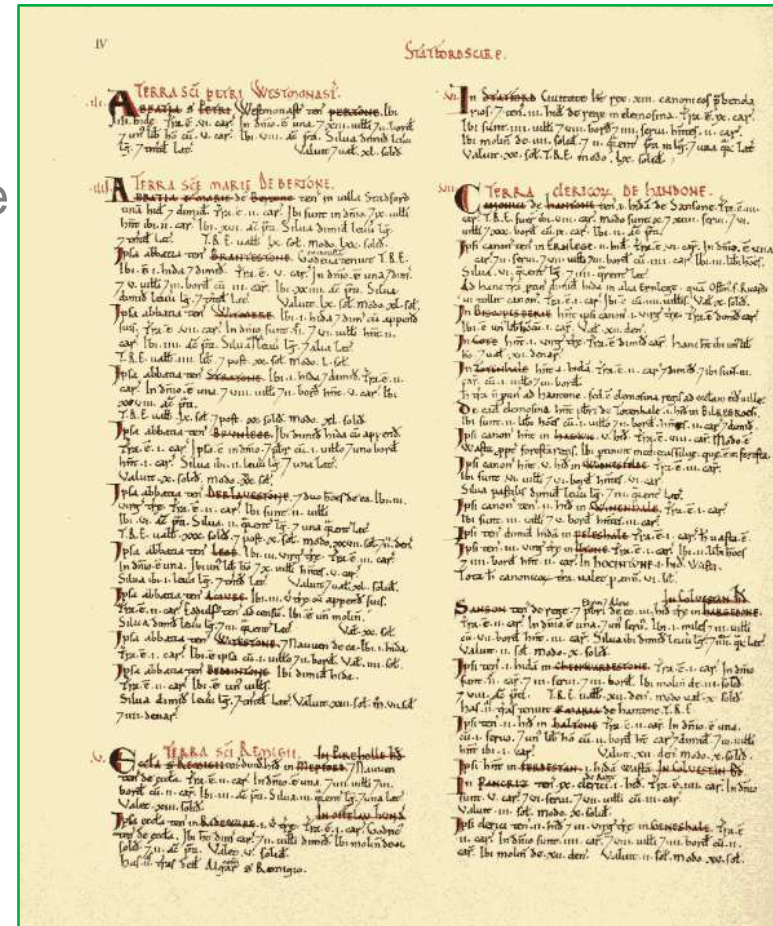
2018/19 - Design completed

2019/20 - Weir removal starts 1st of September

Dove Cliff Heritage

Not formally mentioned in the Domesday book (1086), however, work for the channel would have started between 1086 and 1342

- Cliff Mill first mentioned in 1342
- Operated as a corn mill until 1733
- 1753 – 1881 it was used to power a forge
- Mill demolished in 1963



£1.5M MOVE WOULD HELP
WILDLIFE AND CUT COSTS

Historic dam being removed to prevent A38 flooding

Why this historic weir in South Derbyshire could be removed

People are being asked to give their opinions on the proposals

Weir removal to go ahead

MOST OF STRUCTURE WITH ANCIENT ORIGINS TO BE DEMOLISHED TO IMPROVE HABITAT

CONTROVERSIAL £1.5 million plans to part demolish an ancient weir near Burton allowing fish to swim upstream have got the thumbs-up from anglers – despite fears that a “glorious” structure will be lost to an “act of vandalism.”

Historic weir could be removed to help fish

PROPOSALS TO IMPROVE
RIVER DOVE'S BIODIVERSITY
BUT CONCERNS ARE RAISED
OVER FLOODING RISKS

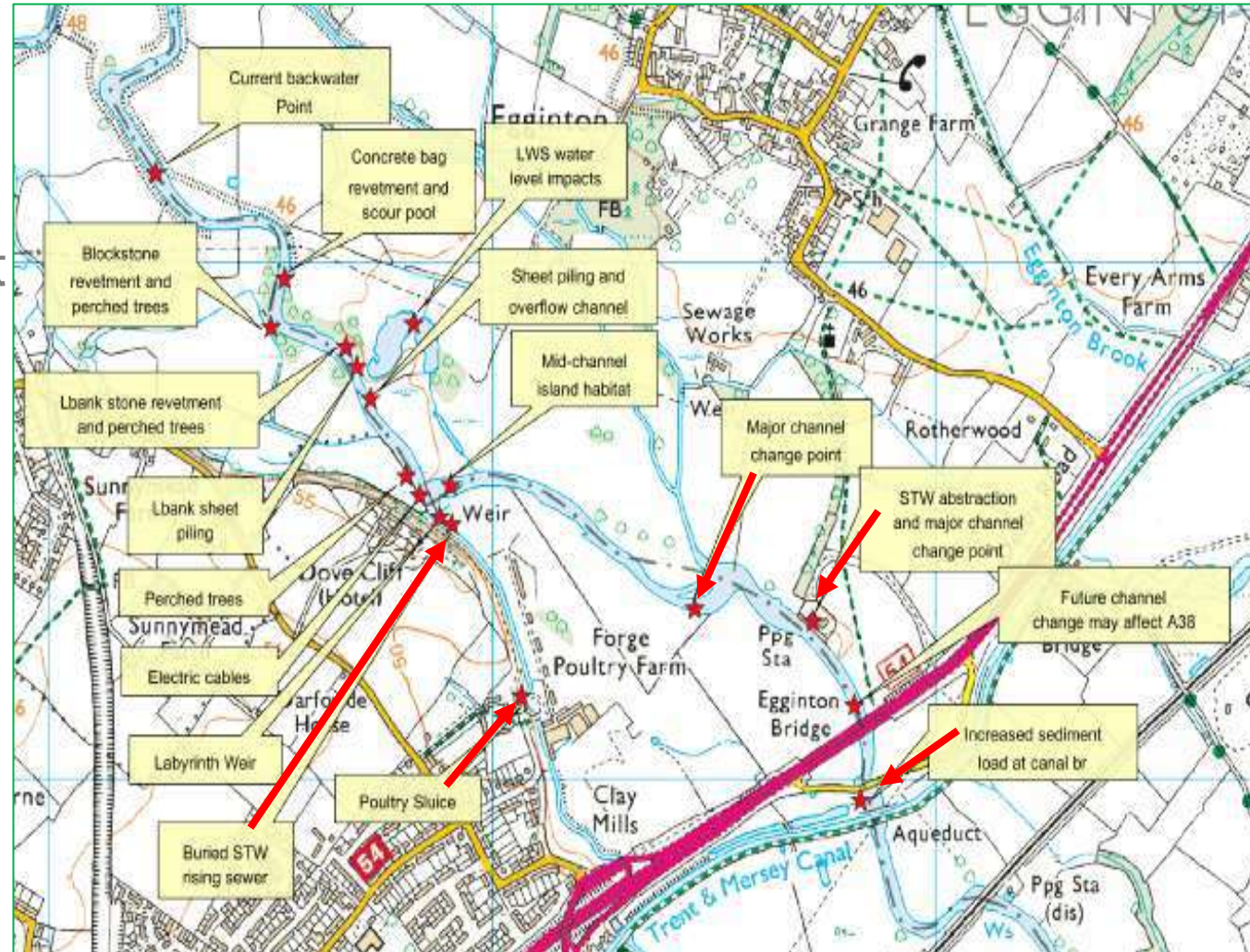
The Environment Agency is considering removing Dove Cliff Weir, in Egginton, to allow fish, such as salmon, and other animals to move further upstream

Plans to remove historic weir get thumbs-up despite 'vandalism' fears

It is hoped it will make it easier for fish to swim upstream

Design Development – challenges

- Heritage
- Severn Trent Water – abstraction plant
- Severn Trent Water – sewer
- Clay Mills Leat
- Monks Bridge Aqueduct
- Geomorphology



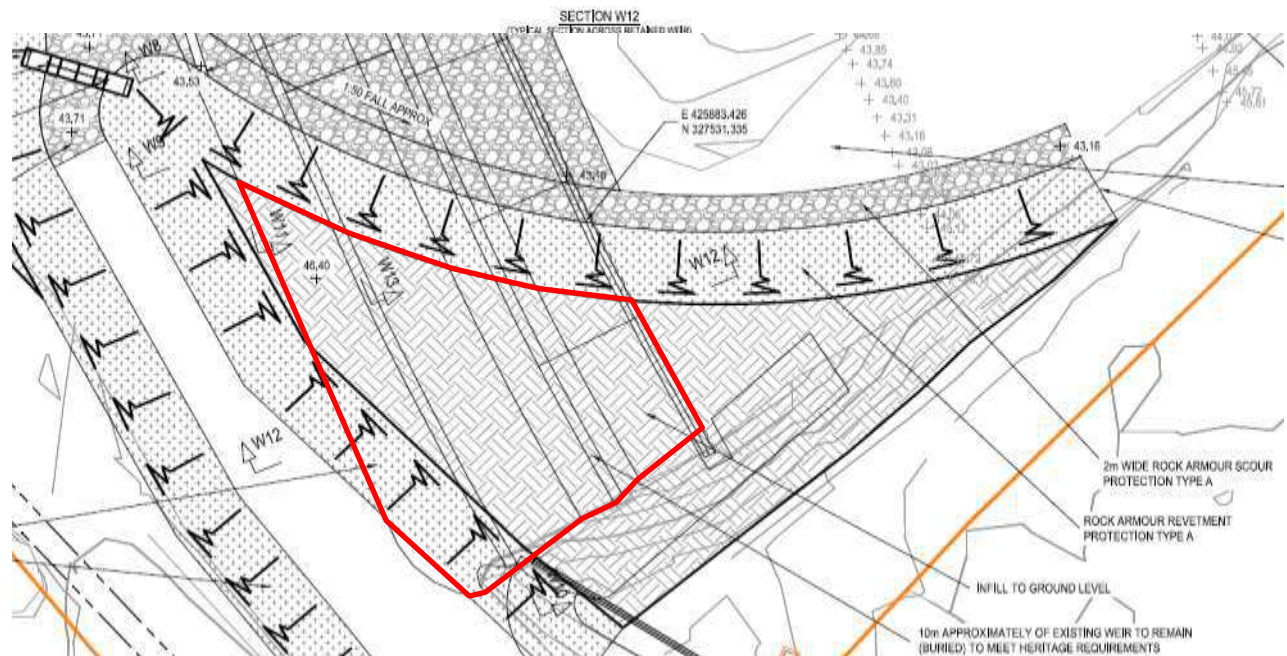
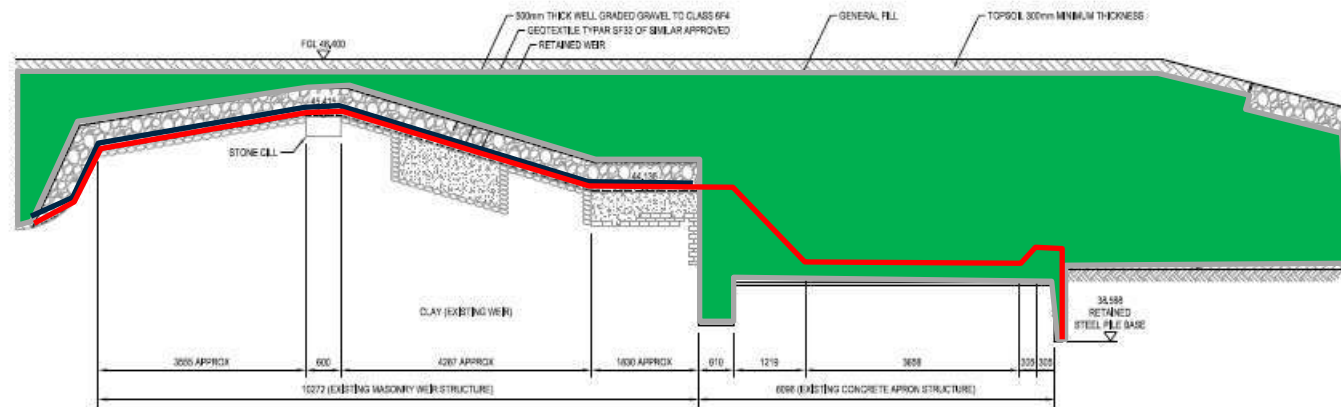
Detailed Design – Aerial View



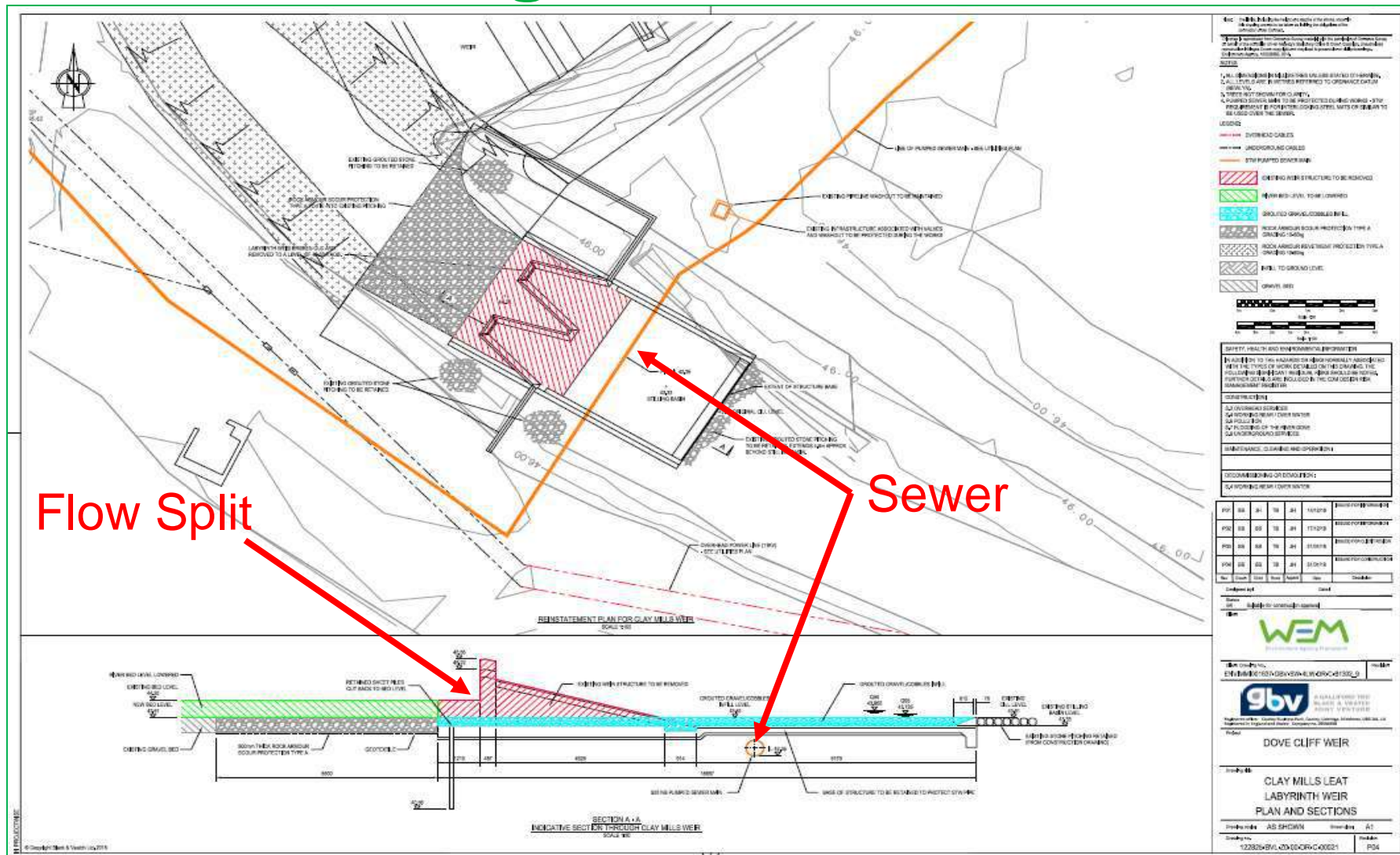
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Detailed Design - Heritage

- New riverbank profile
- 10-15m section retained
- Root protection geotextile
- Re-use of existing and demolition materials

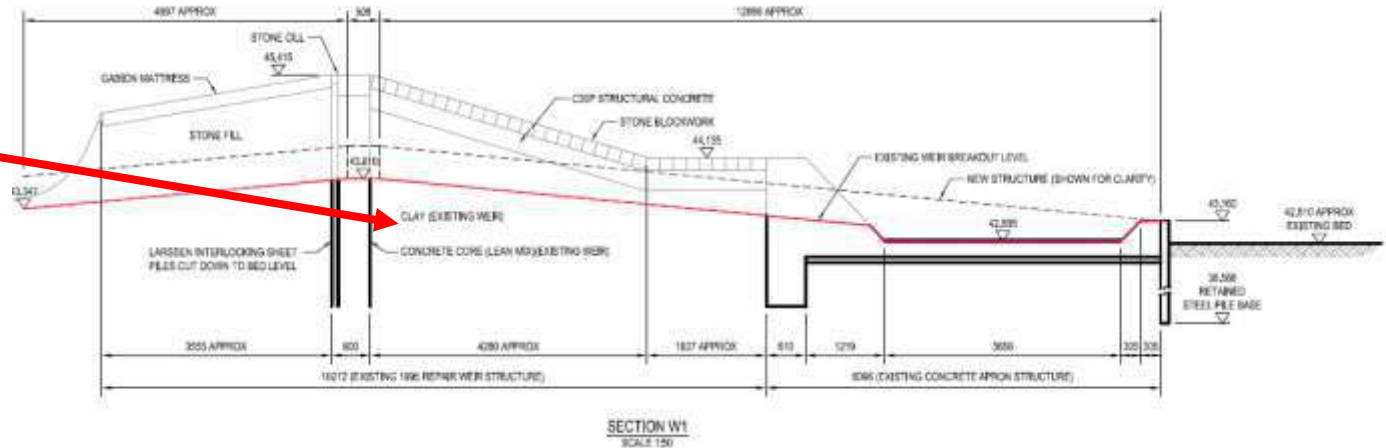


Detailed Design – Severn Trent Water

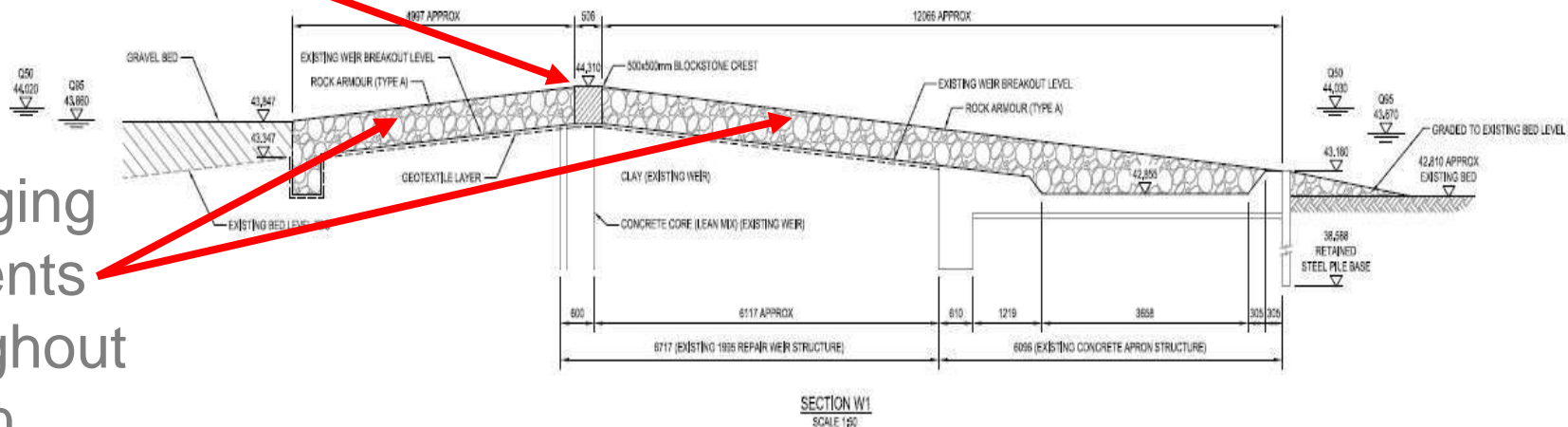


Detailed Design – Low Flow Management

- Existing clay centre retained

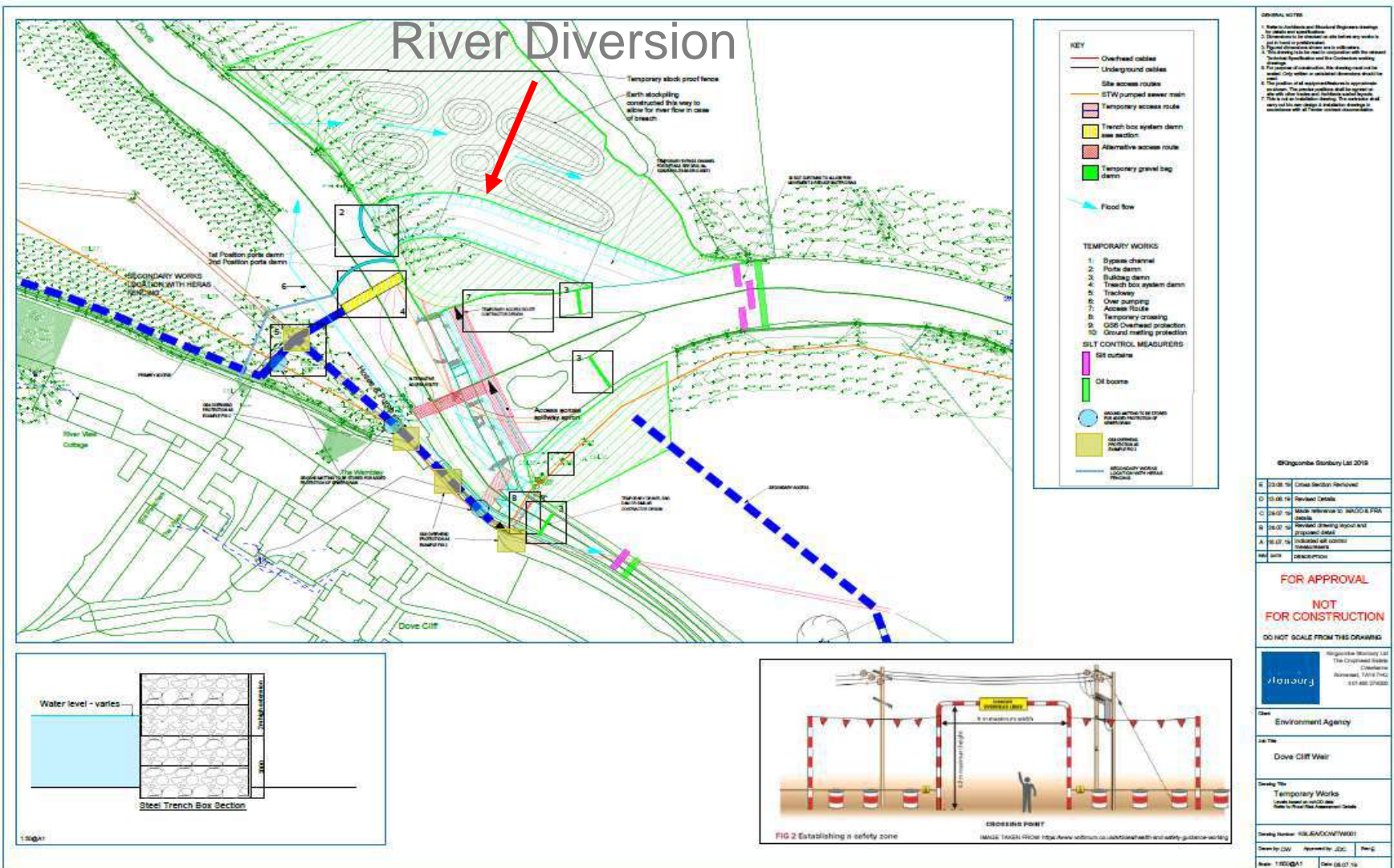


- 0.5m x 0.5m 'blockstone crest'



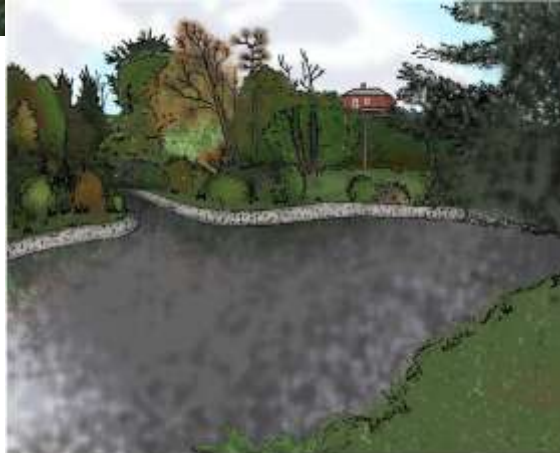
- Changing gradients throughout design

Construction – Temporary Works



River Restored for Christmas 2019?

There is no innovation without experiment, no experiment without failure and no achievement without risk. Therefore the biggest risk is not taking any risk.



Questions?

