Dove Cliff Weir Removal: River Restoration or Heritage Vandalism?

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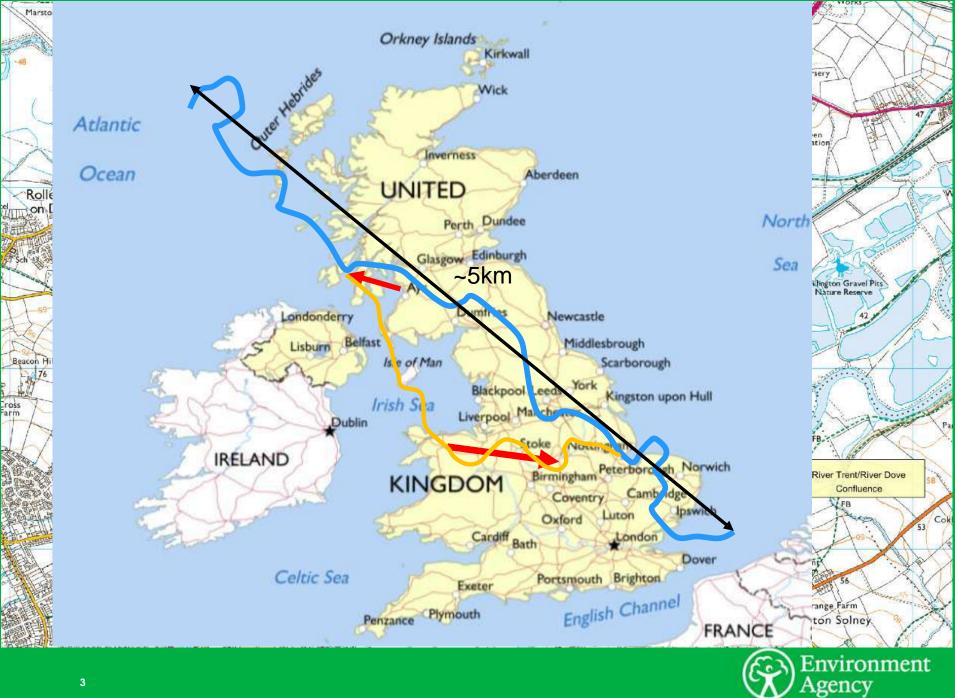
Project Objectives

- 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?

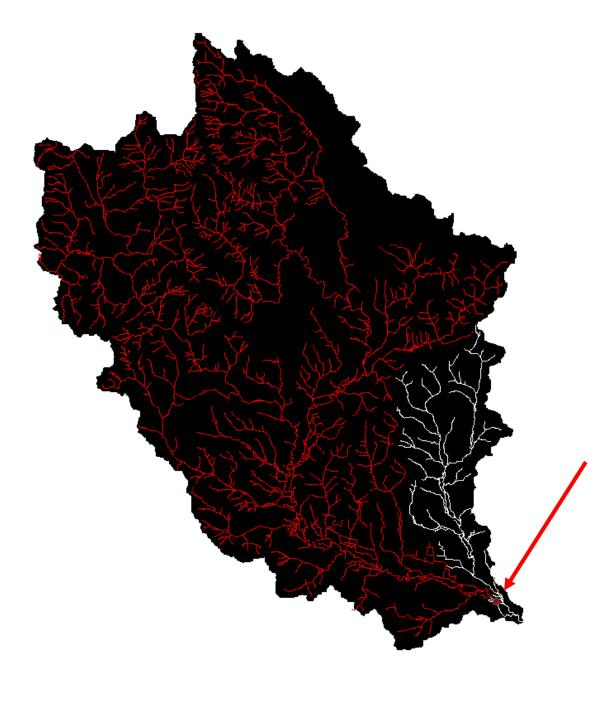
- It's in the UK's 25 year Environment Plan
- Salmon 5 Point Approach





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

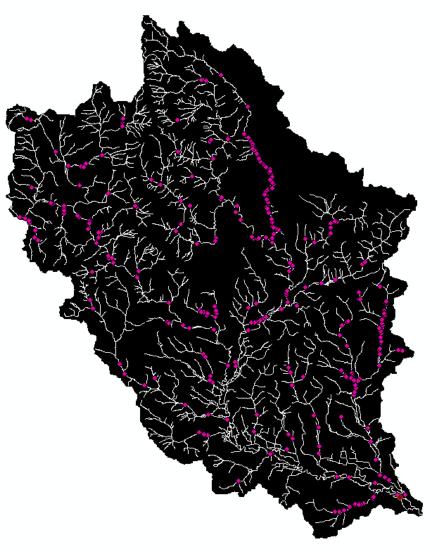




 On its own Dove Cliff currently completely blocks or delays ecological migration of up to 1187km, which equates to 90% of the catchment

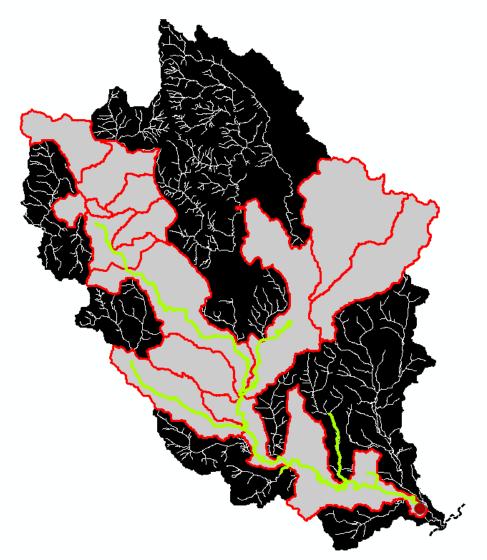


What about all of the other barriers?



- 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%) Environmen

...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



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Historic dam being removed to prevent A38 flooding

Weir removal to go ahead

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

Why this historic weir in South Derbyshire could be removed

People are being asked to give their opinions on the proposals

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."

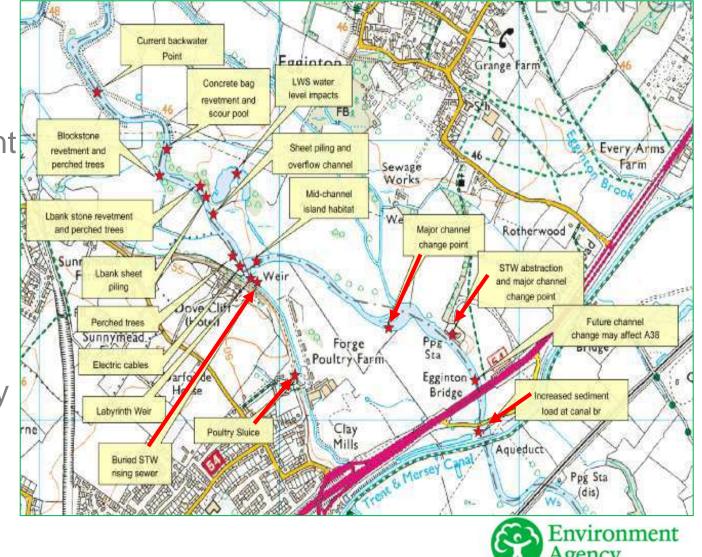


Plans to remove historic weir get thumbs-up despite 'vandalism' fears

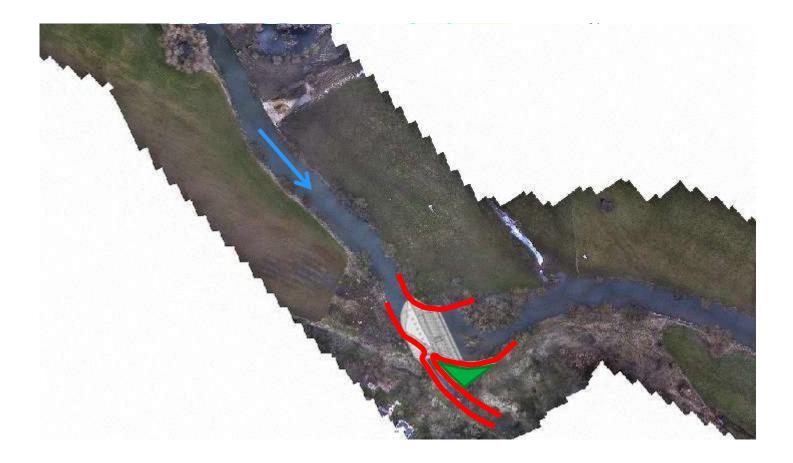
It is hoped it will make it easier for fish to swim upstream

Design Development – challenges

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

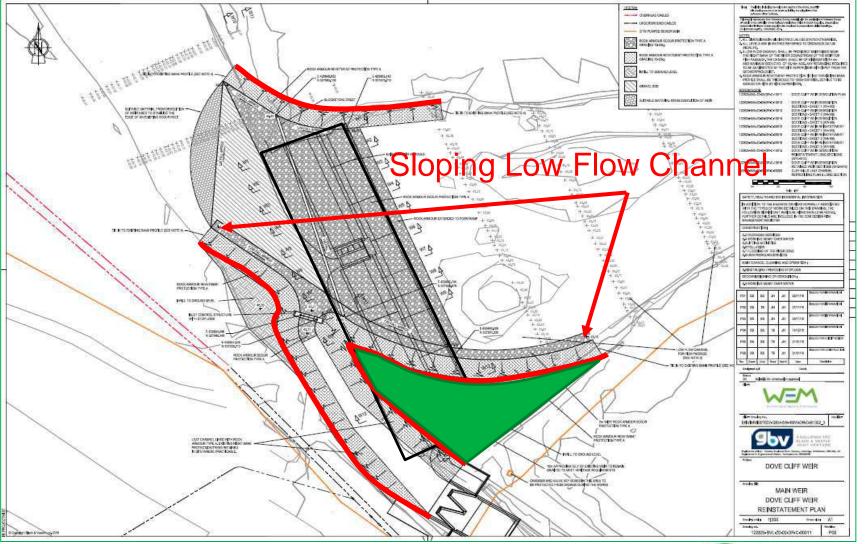


Detailed Design – Aerial View





Detailed Design – Main Weir



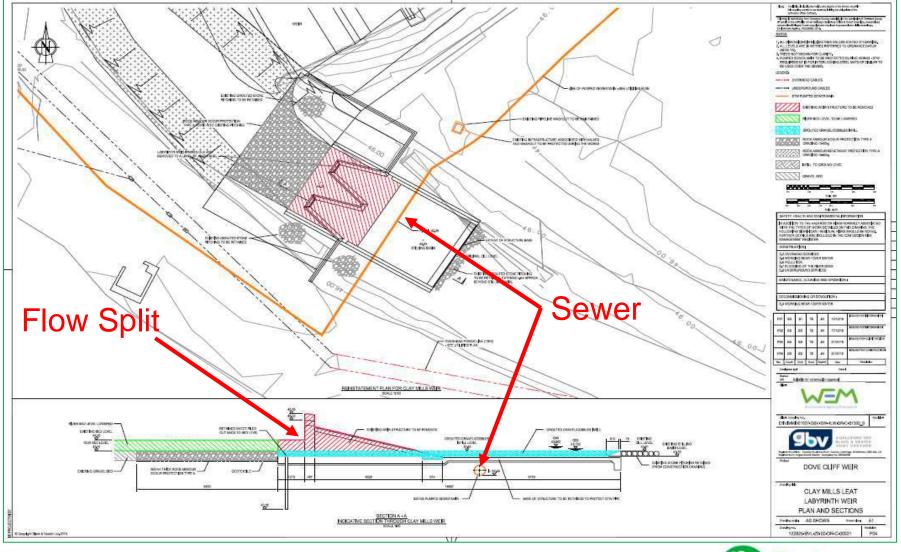


Detailed Design - Heritage

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

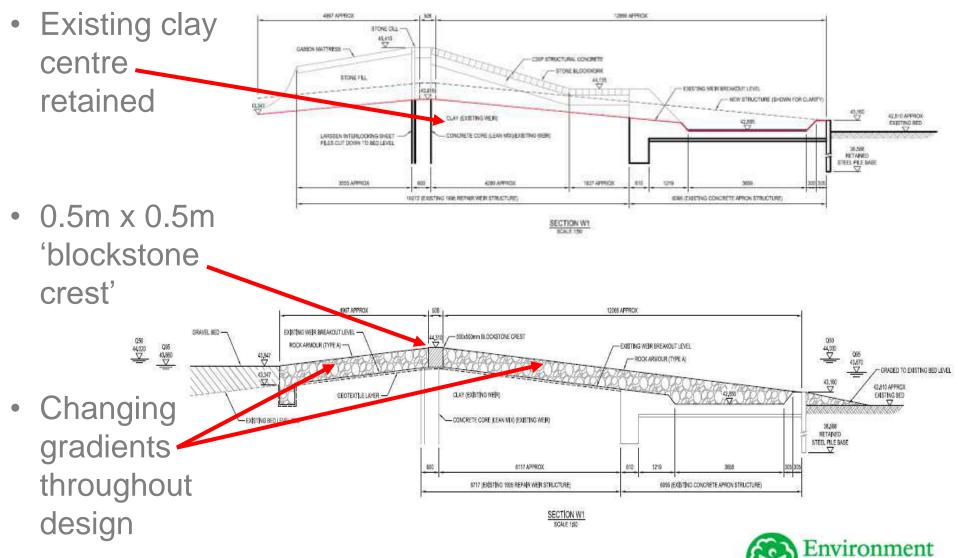


Detailed Design – Severn Trent Water

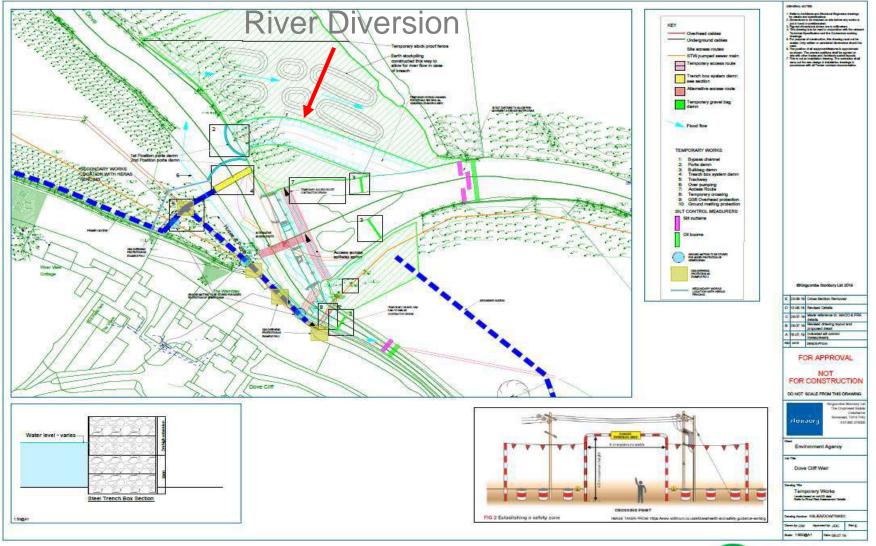




Detailed Design – Low Flow Management



Construction – Temporary Works



http://193.192.196.65:2010/Streaming/Channels/1/picture



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?



