

Improving Eel habitat on the Broadlands Estate

Broadlands Estate, in partnership with Wessex Chalk Stream and Rivers Trust, was keen to restore an element of the historic ditch network and redundant fish farm stews to improve European Eel habitats.



The existing channel and ditch network was choked with dense reeds and brambles reducing water flow and passage for Eels throughout the year. We undertook the contract with the aim to re-naturalise the network, enhancing connectivity between this and a recently enhanced wetland area.



Before: Redundant fish farm stews

What did we do?

- Cleared scrub and trees to open-up bankside habitat
- Safely removed a large amount of bank shuttering/frames, sheet piling and concrete structures
- Re-profiled/grading of stew banks, repurposing material to repair a breach in carrier
- Installation of site-won woody material features within larger stew
- Found a solution to varied ground levels/ issues by creating a new ramped fish pass to facilitate eel access
- Created 3-5m wide breaches to create sinuous habitat

- Adjusted existing channel inlets and outfalls to set levels within stews
- Flexible in project structure, resolving challenges throughout the project due to the unmanaged nature of the site
- Using existing sluice structures created new connecting ditch
- Excavation, inspection, reconditioning and adaption of existing structures as the offtake
- Created new, approximately 140m long, channel from reconditioned sluice to the existing ditch system



During: Removal of steel/ concrete from stews and reprofiling of banks

What were the results?

We created a significant on-line wetland and restored historic channel/ditch networks to provide unrestricted water flow and connectivity between habitats. The restoration of the fish stews created approximately 0.15 ha of wetland habitat, with a simple self sustaining inlet and outfall to cope with a range of water heights. The new ditch will facilitate connection of approximately 1000m total new, existing and restored ditch networks suitable for European Eel.



After: The connected and reprofiled stews filling with water and the outfall fish pass just starting to flow



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