



HACKBRIDGE

PROJECT SUMMARY

Project Name:	Wandle River Restoration Project: Hackbridge
Location:	River Wandle, Hackbridge
Project Duration:	Sept 2012 – ongoing
Cost:	Approx. £150,000
Supported By:	Defra (Catchment Restoration Fund) Environment Agency, Living Wandle Landscape Partnership, London Borough of Sutton, Rydon Construction
Related Projects:	Butter Hill Phase 3



Aim

To improve the biodiversity and resilience of the upper Wandle by improving fish passage and habitat between Shepley Mill and the downstream end of Culvers Island.

Project Summary

This project is one of four sites in the Wandle River Restoration Project being delivered through the Defra Catchment Restoration Fund.

Four weirs were removed and 125 m of river narrowed using bioengineering techniques. An island was regraded and a backwater created with 250 tonnes of gravel used to enhance geomorphology and habitat along with 6000 plants planted by volunteers.

Benefits

- ✓ Fish passage restored and decrease in 300 m of impounded river length
- ✓ 1000 m² marginal wetland habitat created
- ✓ Increased aesthetic value and habitat diversity
- ✓ Restored hydrogeomorphology
- ✓ Project used as match funding for the Living Wandle Landscape Partnership, bringing in a further £112,000
- ✓ Engagement with a new community

Project Detail

Designs were developed based on detailed 2D flood modelling undertaken in conjunction with cbec eco-engineering. Practical works were delivered during Summer 2014 with appointed contractors, Cain Bioengineering.

The work started with the removal of old toe-boarding from around the edge of Culvers Island. The island was re-profiled with a new bank line created using hazel faggot bundles secured with chestnut stakes and backed with coir netting. Sediment from the channel was then placed behind the new bank line.

The weir structures either side of the island were removed and the river channel narrowed using a combination of chestnut posts and hazel faggot bundles or gabion stone.

A causeway was built to create a backwater pond area using coir geotextile layered over a bed of stone and weighed down with gravel and sediment and planted with aquatic plants. The new island banks were re-graded to create a gradually sloped bank to which a variety of aquatic vegetation was planted with a team of 60 volunteers over three days.

Variations in depth, width and the introduction of gravel, small boulders and Large Woody Debris have all provided a diversity of habitats and increased the flow diversity of the channel throughout the site.



Challenges

- ✓ Very urban nature of the site. Complex flood modelling and design was required.
- ✓ Multiple underground utilities which had to be identified and avoided during the works.
- ✓ Many and varied stakeholder needs and opinions.