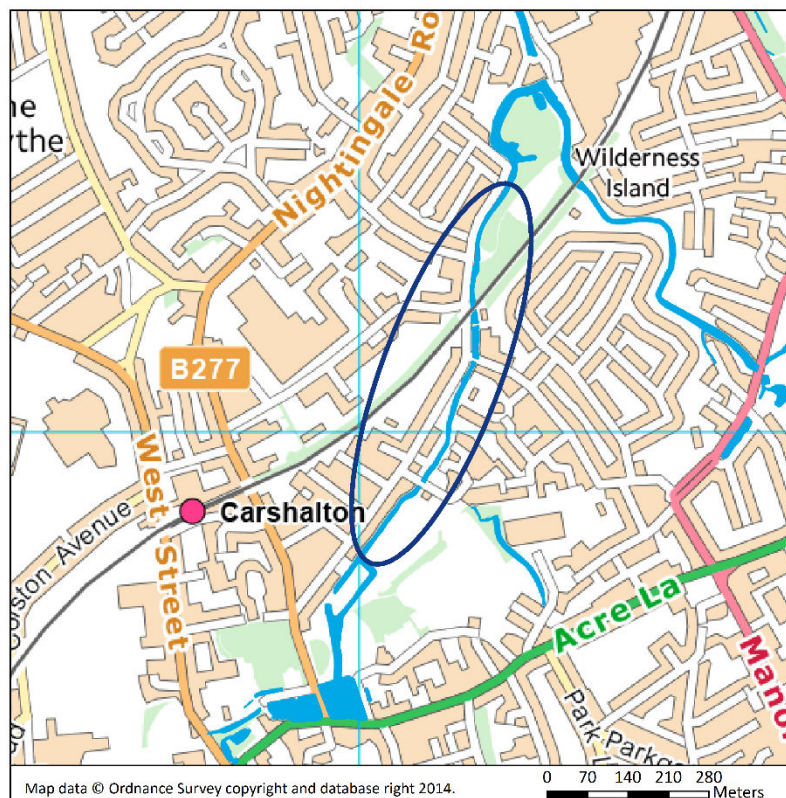




BUTTER HILL PHASE 3

PROJECT SUMMARY

Project Name:	Wandle River Restoration Project: Carshalton
Location:	River Wandle, Carshalton
Project Duration:	Jun 2012 - Mar 2015
Cost:	Approx £100 000
Supported By:	Defra, Environment Agency, HLF, River and Wetlands Community Days fund
Related Projects:	Butter Hill Phase 1, Butter Hill Phase 2



Aim

To restore fish passage and improve habitat in the Carshalton Arm of the River Wandle and bring it to GEP by 2015.

Project Summary

This project is one of four sites in the Wandle River Restoration Project being delivered through the Defra Catchment Restoration Fund. The weir at Butter Hill was reduced in height by 1 m and the fish pass modified to increase efficiency. The length of impounded river was reduced by 150 m (15% of total waterbody length) and fish passage opened up for 500 m upstream (50% of the waterbody length). A total of 500 m of river was narrowed and meandered with a low flow channel, berms, riffles, pools and marginal wetlands created along the length. Approximately 300 tonnes of gravel were added to restore geomorphology. Volunteers planted 2000 plants and coppiced trees to enhance light penetration.

Benefits

- ✓ Improved fish passage and reduction in impounded river length
- ✓ Increased aesthetic value
- ✓ Increased habitat diversity
- ✓ Engaged new volunteers
- ✓ Restored hydrogeomorphology
- ✓ Project used as match funding for the Living Wandle Landscape Partnership, bringing in a further £112,000

Project Detail

Flood risk and hydraulic assessment of the weir and fish pass were carried out in conjunction with Matt Horritt Consulting. Works were delivered with the help of appointed contractors Aquamaintain Ltd under the supervision of South East Rivers Trust staff.

The weir at Butter Hill bridge was partially lowered to restore natural flow to the upstream channel and the fish pass modified to improve its efficiency.

Upstream of the weir the over-straight, over-wide channel was narrowed and modified to create a meandering sequence using a combination of gravel, hazel faggots, chestnut posts and coir geotextile with silt from the channel and brash as backfill.

The banks on both sides of the channel were then re-graded to create marginal and transitional habitats. A variety of marginal plant species were introduced to assist with naturalisation by a team of 15 volunteers.

Downstream, for 300 m, channel narrowing and meandering was continued and gravel and Large Woody Debris was introduced along the whole reach to further diversify the river flow and replicate natural hydromorphological processes, creating habitats for invertebrates and all life stages of fish.

Trees were also removed in phases over a two year period to increase light in selected places and encourage plant growth along the whole 500 m reach.

Challenges

- ✓ Urban nature of the site, diverse stakeholder opinions and neighbouring properties
- ✓ Balancing fish passage and habitat requirements with flood risk and structural requirements.

