

Catchment Restoration Fund Briefing Note



Wandle River Restoration Project

The River Wandle is an urban chalk river and an important community resource in south London. Historically it was important for milling and was known as the ‘hardest worked river for its size’ in the world. Together with later alterations for flood defence has left a legacy of structures and morphological changes. These include a highly manipulated, over-widened and over-straightened channel lacking hydrogeomorphological diversity. This has impacts on water quality and consequently, limited biodiversity in many areas. Numerous weirs prevent fish migration, creating isolated fish populations vulnerable to episodic pollution events and climate change. In addition, the weirs have long impounded stretches of the river, resulting in poor habitat and ‘bottlenecks’ for various life stages of fauna. Due to the highly urban nature of the catchment, the river is also detrimentally impacted by road run-off with significant inputs of both sediment and contaminants including hydrocarbons and heavy metals.

The Wandle comprises two Heavily Modified Water Bodies: the Carshalton water body and the Croydon to Wandsworth water body. It is anticipated that, once complete, the Wandle River Restoration Project will bring the Carshalton water body to Good Ecological Potential (GEP) by 2015 and will move the Croydon to Wandsworth water body closer to its target of GEP by 2027. This project involves four sub-projects at strategic locations, all of which build on previous work to address a variety of issues including:

- Barriers to fish migration.
- Input of sediment and contaminants from road run-off.
- Poor in-channel and marginal habitat.
- Anticipated pressures from climate change and low flows.

Key Facts	
River Basin	Thames
District	
Catchment	Wandle (London)
Outcomes	Enhanced habitat and species diversity. Increased hydrogeomorphological diversity. Increased in-channel connectivity. Reduced impact from road run-off. Improved functioning of the riparian corridor. Enhanced public awareness and involvement. Climate change mitigation.
Start Date	1 st July 2012
End Date	31 st March 2015
Budget	£487,753 (£454,353 from CRF)
Project Partners	Environment Agency (EA), London Borough of Sutton (LBS), London Borough of Merton (LBM), Wild Trout Trust (WTT), Thames Water, Queen Mary University of London (QMUL), King’s College London (KCL), Friend of Ravensbury Park, The Residents Association of Mill Pond Place

Description of Works

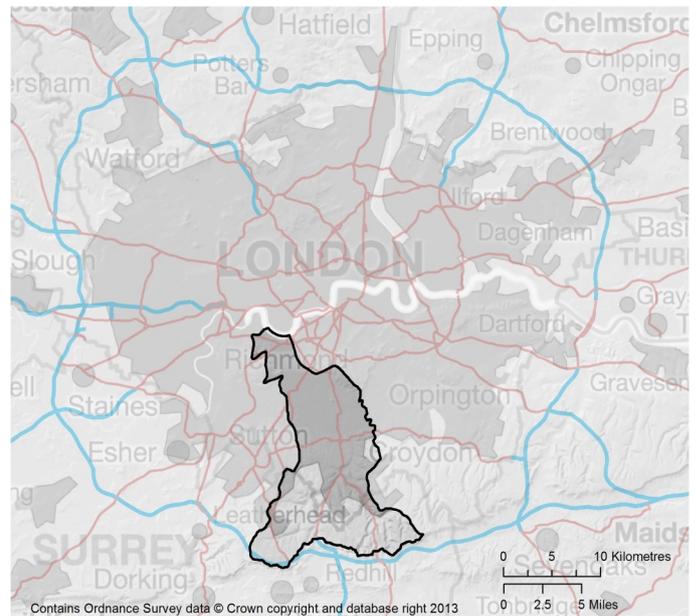
To tackle the issues faced on the River Wandle, the project will manage delivery of the following activities:

- **Improved river connectivity** for multiple fish species including: the removal of three weirs, addressing a failing technical fish pass and undertaking a feasibility study on the removal or modification of a tilting weir which poses a significant obstruction. This study will consider any changes in flood risk as well as the potential impact on two Local Nature Reserve wetlands located upstream of the weir and highlight any mitigation needed.
- **Reduced impact of road run-off** through the installation of hydrodynamic vortex chamber silt traps on the surface water drains of the Carshalton water body. This will reduce the input of road-derived sediment which is responsible for siltation of gravels within the river and subsequent reduced quality of spawning habitat. It will also prevent oils and other contaminants bound to this sediment from entering the river.
- **Enhanced habitat and hydrogeomorphological** diversity achieved through channel narrowing and reshaping to support more natural river processes. This will improve flow dynamics and help to maintain clean river bed gravels whilst encouraging the growth of native chalk river plant species. Bank reinforcement will be removed or modified to create a more natural (and stable) bank structure and riparian zone with backwaters, whilst the growth of in-stream and marginal vegetation will be encouraged through a variety of measures including planting and tree thinning. Restoring these natural processes will help the river become more resilient to future pressures and episodic extreme events, e.g. pollution and the effects of climate change.
- **Community engagement** and involvement instilling understanding and a sense of ownership amongst the local community. This is an essential part of any urban river enhancement project and is key to the longevity and sustainability of the improvements and benefits it will bring. Engagement is being conducted through public consultations, informative posters and letter drops in the areas surrounding the works and with volunteer work parties to help undertake practical elements where possible.

What Success Will Look Like

Through the Wandle River Restoration Project a partnership will be formed which will greatly improve the ecology of the river and bring an urban water body to GEP. The project will support healthy and sustainable populations of native fauna and flora with greater resilience to pollution events and climate change. A further benefit is the improvement of a local community resource which forms an important part of the green infrastructure of London. The work undertaken in this project will significantly improve the ecosystem service value of the river and will help to instil a sense of ownership amongst the local community. Additionally, it will help to deliver the Wandle's Catchment Plan, realising some of the aspirations of the local community and demonstrating the benefits of the catchment-based approach.

The Wandle River Restoration Project will also underpin and support a separate parallel project in which the Wandle Trust, the Wild Trout Trust and the Environment Agency are working to reintroduce a population of urban-adapted wild brown trout to the Carshalton water body.



The River Wandle Catchment

About the Team

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Other Contacts

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