

River restoration – a sustainable approach

The Rye Brook is a tributary flowing from its source on Epsom Downs to the River Mole at Leatherhead in Surrey and ultimately the River Thames. During its journey, the Rye runs through Ashted Common, a National Nature Reserve and public open space owned by the City of London Corporation. In 2006 the City restored the Rye to a natural river for wildlife and people.



Background

Since the 1950s urban development has affected the Rye and a large part of its catchment area is occupied by housing. The Rye periodically overflows and is expected to do so more often as a result of climate change. The City worked on a project with Ashted Residents Association, English Nature and Environment Agency to reduce the risks associated with flooding.

Restoring the river channel

The aim of river restoration is to encourage natural processes such as erosion, the depositing of minerals and occasional flooding of wetland habitats. To achieve this on Ashted Common the City employed a River Engineer to design a scheme that reintroduced bends into the river channel and changed its banks to a more natural profile.



Improving the river corridor

Experienced contractors using specialist machinery created a mosaic of ponds and shallow pools alongside the new channel that fill with water when the Rye floods. These features provide a diversity of wetland habitats along the restored river corridor, improving the quality of the entire river system.

Increasing flood storage capacity

The contractors also constructed a low embankment across the river corridor using material excavated from the ponds and pools. A flow-control structure limits flood flows passing downstream and so protects local houses whilst flooding the wetland habitats more frequently.

Enhancing biodiversity

A key driver of the project was to improve habitats for wildlife on Ashted Common. Ecological surveys by Surrey Wildlife Trust are helping to monitor success. By enhancing wetland habitats we have created new homes for dragonflies, Great Crested Newt, Kingfisher, Grey Heron, Snipe and Grey Wagtail.

Providing a river for all

Ashtead Common is provided as an open space for the recreation and enjoyment of people. The design took into account the safety of visitors, by landscaping features with shallow banks, while fitting handrails to bridges for safe pedestrian access. A short surfaced path provides easy access for all to enjoy the river.



Delivering quality and value

The 50% external funding was matched by the City at no cost to the local community. The SITA Environmental Trust, through the Landfill Tax Credit Scheme, provided £35,000 for engineering work. Other aspects were funded by contributions from Mole Valley District Council, Surrey County Council and Thames Water.



Developing learning opportunities

Everyone involved learnt a lot about river restoration, flood alleviation and wetland enhancement. Local schools and colleges are using the project as a case study for geography and environmental studies. As wetland habitats develop, the project will continue to offer opportunities for education.

Including local people

Extensive public consultation generated local support for the proposals. During the work, the City kept the local community fully informed about progress. The Ashtead Common Volunteers built the flow-control structure by hand. It is a structure that the volunteers can feel proud of for years to come.

A sustainable open space

The river restoration project was challenging to plan, design, consult and finally implement. A team effort by employees, volunteers, contractors and the local community ensured it was completed safely, on time and within budget. An integrated approach delivered environmental, social and economic benefits on Ashtead Common for present and future generations.

You will find more information about Ashtead Common on our website
www.cityoflondon.gov.uk/openspaces

For any further questions, please contact the Ashtead Common Team via email
city.common@cityoflondon.gov.uk or phone 01372 279083

For further information regarding sustainability in the City of London, please visit
www.cityoflondon.gov.uk/sustainability