

Headstone Manor Park & Wetland Monitoring

Thames Water: Smarter Water Catchments Programme. River Crane Catchment

Project Description

Headstone Manor Park, located in the London Borough of Harrow, underwent extensive restoration as the Yeading Brook was causing flood and pollution risks to the museum site, a Scheduled Ancient Monument. Harrow Council secured funding through the National Lottery Heritage Fund (NLHF) to address the sites hydrology while protecting and enhancing its cultural and natural heritage and providing a space for people to enjoy. The restoration works included the repairing and restoring of heritage features, the creation of new visitor facilities and enhancement of the natural environment. This was delivered by deculverting, realigning and restoring the original river system to improve flood conveyance and provide in channel flood storage, and the creation of a wetland. Further partners involved include London Borough of Harrow (LBH), Greater London Authority (GLA), and Thames Water (TW) through the Smarter Water Catchments Initiative (SWC).

Start date: 06/09/2019 **End date:** 11/09/2021.

Following delivery and creation of the wetland at Headstone Manor Park, The Zoological Society of London (ZSL) collaborated with local volunteers to assess the water quality and biodiversity impact of the wetland. Data collection included the implementation of multiparameter sondes (probes located in the water that automatically transmit water quality data), water and sediment spot samples, and biodiversity monitoring.

Project Costs

Total Costs: £3,602,684

Thames Water Contribution: £150,000

Notable partner / public funding: NLHF £1,389,200. LBH Section 106 £370,065, LBH Green Grid £22,998, CIL £294,121. Thames RFCC £967,755

Objectives

1. Restore the quality, vitality and attractiveness of the Park.
2. Produce an integrated masterplan including the long-term sustainability of the Park.
3. Improve visitor experience and engagement through a 2-year water environmental activity and engagement plan delivered by Thames21, and new interpretation, signage, nature trails and footpaths.
4. Develop sustainable user groups and provide skills training to volunteers.
5. Engage with schools, voluntary and community organisations to merge environmental learning with the Park's heritage in a programme integrated with the Headstone Manor & Museum Outdoor Learning activities programme.
6. Support the newly formed Friends of Headstone Manor Park to help with Park governance as well as recruiting volunteers for conservation days.

Outcomes

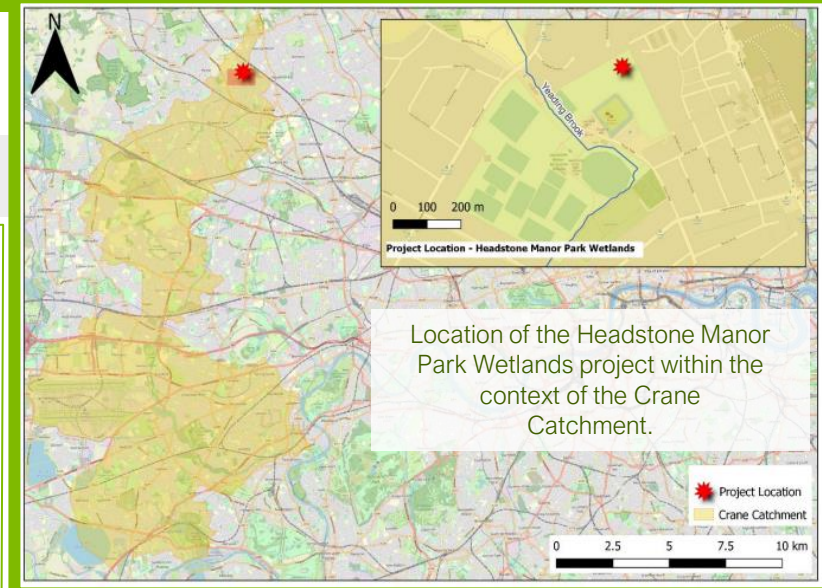
- 0.9 ha of wetland was created. The wetland stores 3,200 m³ of water, resulting in a reduction in flood risk.
- The project accumulated 9,258 volunteer hours in total.
- 3 new jobs were created including a full time Outdoor Learning Officer, funded by The National Lottery Heritage Fund.
- 124 events held including nature discovery walks and yoga sessions, engaging 12,213 attendees.
- Visitor numbers increased by 73.1% (214,609 in 2016 to 371,483 in 2020).
- The profile of visitors is now more diverse, with an increase in the number of Black and Asian minority ethnic groups as well as visitors aged between 5 & 10.
- Visitor satisfaction increased by 36.6% from 2017 to 2021.
- 4 heritage features restored, and 1 heritage/nature trail created.
- The introduction of interpretation boards, signage and leaflets to improve interpretation of the significant landscape and heritage.
- Upgraded footpaths, bridges and benches improved visitor access to all areas of the park
- Citizen Scientists were successful in collecting meaningful data that supported sonde measurements and data collected by ZSL staff and partners.

Lessons Learnt

Pre-project delivery (development phase) community engagement is fundamental to the success of projects affecting the communities as it helps to develop and strengthen relationships within the local community and increase greater awareness of the project.

The wider benefits approach championed by the SWC initiative allowed TW to justify a significant financial investment. By incorporating the multiple wider benefits of wetland creation (flood risk, water quality, water storage, education and social value) TW were able to demonstrate significant benefits within their cost-benefit analysis.

For the monitoring element of the project, weather conditions have provided constraints to the proposed monitoring programme. Recognizing the dynamic nature of the watercourse system and integrating that into the management and maintenance plan for project of similar size and complexity is a must.



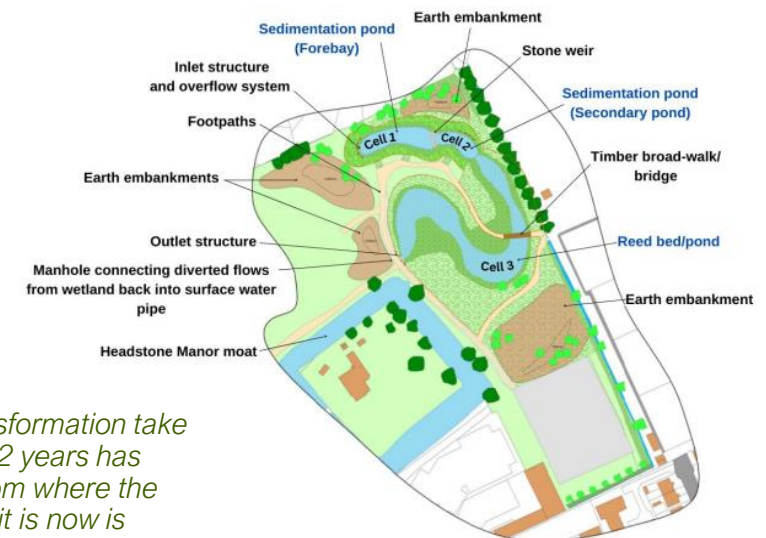
Project Highlights

- The creation of urban wetlands is a relatively new emerging field, and the project serves as a valuable case study for identifying wetland creation opportunities in urban parks in London.
- The Visitor Survey that ran from 10 September 2021 to 08 October 2021 showed that the number of visitors who agree that there is a good community spirit where they live has increased (from 40% in 2017 to 68.1% in 2021). Furthermore, the number of visitors who agree that the park enhances their quality of life has increased (from 62% in 2017 to 95.1% in 2021).
- Working with an existing group of volunteers, with a passion for improving Headstone Manor Park, led to good engagement numbers with new volunteers willing to participate in a range of monitoring activities.
- The project has had a positive impact on biodiversity. Planting along the riverbank and the wetland has significantly increased the nature value of the site. The new wetland attracted dragonflies, and freshwater shrimps were spotted in the Yeading Brook indicating cleaner water.
- Improved river conveyancing reduced flooding to the historic buildings. The newly enhanced range of habitats has provided new settings for nature-based activities within the wetlands including butterfly observations and the de-culverted stream allows access for river dipping.

Future Plans

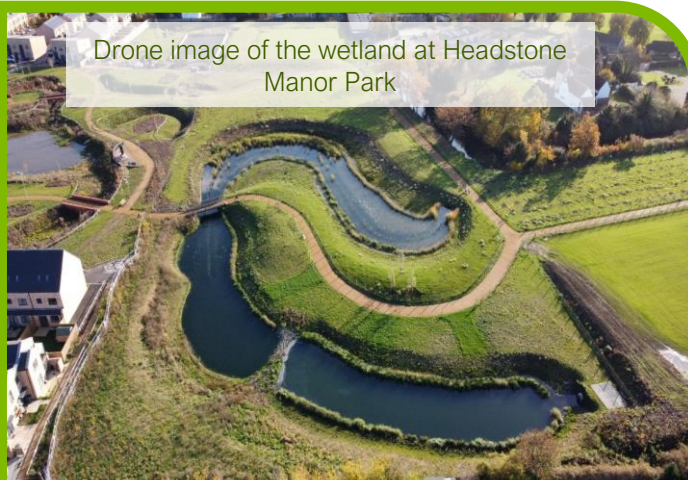
The current wetland monitoring methodology is a pilot using low-resolution data. The plan is to engage the community systematically in wetland monitoring and expand the initiative.

Collaboration with the eight London catchment partnerships to promote wetland creation and nature-based solutions.



Headstone Manor Park Site Map

"Watching the transformation take place over the last 2 years has been wonderful; from where the park was to where it is now is outstanding!" – Visitor of the Park



Drone image of the wetland at Headstone Manor Park

