



Yeading Brook near Ruislip Gardens green space (photo: Liz Chiu)

## The Yeading Brook is an urban waterway that crosses the London Boroughs of Harrow and Hillingdon.

Although its course has been altered to accommodate built-up areas, in recent years it has benefited from restoration and improvement works, and long stretches of the Brook are within attractive green spaces.

Some urban river-walks are suggested on this page.

### [Willow Tree Wander - Hillingdon Council](#)

Enjoy a 5-mile walk at your own leisure along a short stretch of Yeading Brook from North Harrow Station to Ickenham Station. Along the route, follow the signs and waymark posts with the willow leaves and catkin symbol of Willow Tree Walk.

### [Hillingdon Trail - Hillingdon Council](#)

Walk the Hillingdon Trail along the 4 sections that follow the Yeading Brook from Ickenham Marsh until it joins the River Crane in the south of the Borough.



[Yeading Brook - London's Lost Rivers - Paul Talling \(londonslostrivers.com\)](#)

# Headstone Manor Flood Alleviation Scheme and the Parks for People project

Major works were undertaken from 2019-21 by Harrow Council. The Yeading Brook was restored to its original course, wetlands were created to prevent pollution and flood basins with sedimentation pools were built to reduce the risk of flooding for local communities (see next page for details from Thames 21 website).

**HHGS Local Rivers Trip: Wednesday 8<sup>th</sup> June 2022**



# Yeading Brook and the Headstone Manor Park Project

## CONTROLLING WATERS

### Protecting properties and infrastructure



The Headstone Manor Park Flood Alleviation Scheme aims to address surface water flooding in the North Harrow area. The scheme provides basins within the park that will temporarily store water and reduce the risk of the downstream drainage system exceeding capacity during rainfall events.

The basins will normally be dry, however during rainfall events, some water will be diverted and temporarily held in the basins instead of entering the downstream drainage network. This will free up capacity in the drainage network, reduce the volume of sewer overflow and reduce surface water flooding levels in North Harrow. This project will increase flood protection for homes and businesses downstream adding to the overall Environment Agency target of 300,000 homes better protected by 2021.



After rainfall ceases and once there is enough capacity in the downstream drainage system, water temporarily held in the basins will slowly empty from the basins and return to the Yeading Brook channel.

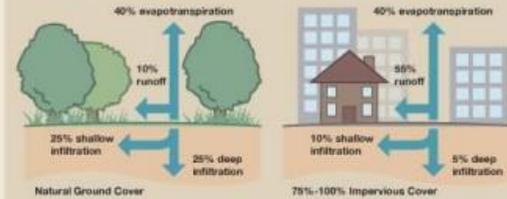
The works for the flood alleviation scheme will also provide additional benefits within the Headstone Manor Park including:

- Improved access to the Yeading Brook
- Improved playing field drainage
- New walking paths and wayfinding around the park



Surface water runoff is becoming increasingly problematic in the UK. Surface water flooding and sewer overflow are occurring more frequently, and the threat of climate change will only worsen these problems.

The increase in surface water runoff in urban areas is largely driven by the change of permeable surfaces to impermeable surfaces, particularly as development seeks to keep up with growing populations.



Rainfall on permeable surfaces, such as parks and woodland results in lower runoff volumes as water is taken up by trees or soaks into the ground.

Rainfall on impermeable surfaces, such as roof tops and roads, is not able to soak into the ground and results in a much greater volume of water at the surface.

## CONTROLLING THE WATERS

### Filtering and cleaning our water and reducing flood risk

Rainfall in the UK is relatively clean until it lands on urban areas like London where it becomes increasingly polluted.



Rain picks up pollutants including silt, oil and toxic metals from roofs, gutters and roads which then flow into the underground river coming from Harrow Weald

Misconnected plumbing from washing machines, sinks, toilets and baths flow into our rivers causing pollution and public and environmental health risks.



Before the water enters the moat it passes through a narrow pipe restricting water flow during storm events allowing the wetlands to flood and reduce flooding downstream.



Instead of flowing directly into the moat it will now flow into the sedimentation ponds where most of the suspended silts will be captured in the forebay (dirty pond) before flowing into the secondary (cleaner pond) leaving behind finer silts and then flowing into the reedbeds where the water will be cleaned by micro-organisms on the reeds root system.

Aquatic pond weed has been planted in the pond margins to slow water flow which promotes silt deposition, oxygenate the water and provide a habitat for bacteria which breakdown pollutants. This will trap 60-70m3 of silt per year.

The reedbeds are planted with common reed *Phragmites australis* which trap and treat pollutants such as toxic metals, oils, raw sewage and silt. They also provide habitat for beneficial bacteria and algae which digest pollutants and clean the water.

The water then flows through a narrow weir 500mm higher than the water level in the moat slowing the flows, allowing more time for silts to settle in the ponds.

08 June 2022 – site meeting







## FARMING AT HEADSTONE

In Medieval times Headstone Estate was part of the manorial lands of Harrow, which were owned by an important lord and leased to local farmers. Tenants paid rent to the lord and provided him with a share of their crops, vegetables, orchard fruits and animals.

The field you are standing in is known as Kings Croft. A "croft" is an old English word meaning a small piece of land close to a house. In the past ridges and furrows from ploughing could be clearly seen.

Headstone was a mixed farm, animals were kept and crops such as beans and wheat were grown. We know fruit also was grown on this field and on Headstone Manor Island. There were areas of pasture where animals would graze and hay meadows for animals over winter. Animals raised at the farm included horses, cows, pigs, hens, ducks and geese.

One hundred and sixty six (166) new trees have been planted to create this orchard. There are 17 different types of fruit including apples, pears, plums as well as the more unusual - quince, medlar, mulberry and persimmon. The orchard, which is cared for by volunteers, provides shelter and food for a host of birds, mammals and insects.



Farmers Fruit Picking Harvest



Map courtesy of Harrow Local History Society

- |   |                              |   |                                |
|---|------------------------------|---|--------------------------------|
|  | 6. Blonness Russet apple     |  | 25. Confidence pear            |
|  | 15. Bunbury Grove apple      |  | 13. President plum             |
|  | 4. Parsonman                 |  | 10. Horned Pearman apple       |
|  | 7. Royal Medlar              |  | 10. Meeches Profito quince     |
|  | 10. Monarch plum             |  | 7. Grimson Newton Wonder apple |
|  | 3. King James mulberry       |  | 4. John Downie crab apple      |
|  | 6. Lah's Prince Albert apple |  | 25. Egremont Russet apple      |
|  | 5. Westervelt Medlar         |  | 8. Nover Marble crab apple     |
|  | 6. Allington Pippin apple    |   |                                |

We believe people have been farming here for at least a thousand years. The farm house 'Headstone' was called 'Hegton' which comes from the old English words 'heg' (hedge) and 'ton' (a large homestead).



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5 Orchard





## CONTROLLING WATERS

### Protecting properties and infrastructure



**North Harrow flooded**

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**Headstone Manor Park flooded**

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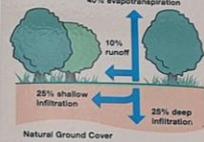
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40% evapotranspiration



25% shallow infiltration  
25% deep infiltration

Natural Ground Cover

40% evapotranspiration



55% runoff  
10% shallow infiltration  
5% deep infiltration

75%-100% Impervious Cover

Rainfall on permeable surfaces, such as parks and woodland results in lower runoff volumes as water is taken up by trees or soaks into the ground.

Rainfall on impermeable surfaces, such as roof tops and roads, is not able to soak into the ground and results in a much greater volume of water at the surface.



Once the first basin fills up, water will overflow into the second basin. In extreme rainfall events, the second basin may fill up and start overflowing back to the natural flow path around the Yeading Brook. The basins can hold over 20,000 cubic metres of water, equivalent to about 8 Olympic swimming pools.

Produced by Elizabeth Wetherburn - 0800 771 771

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# Yeading Brook Meadows

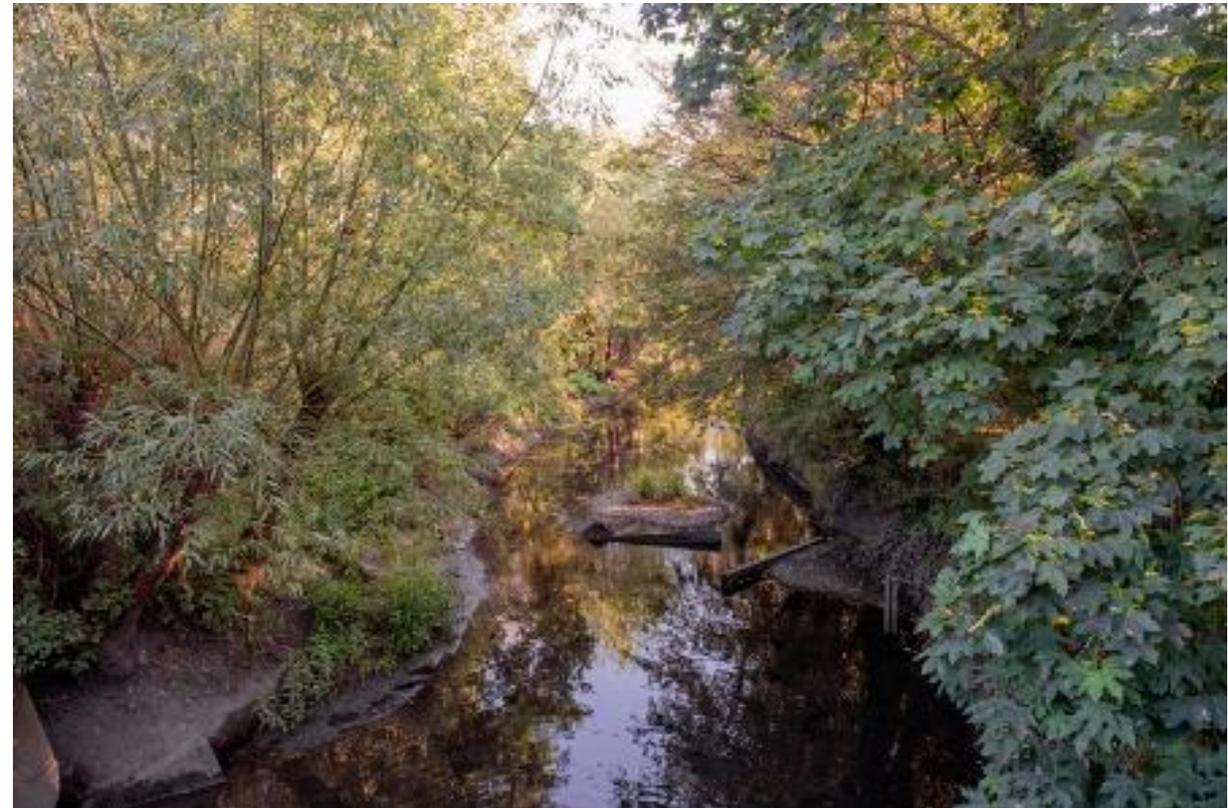
Yeading Brook Meadows is a large green open space, divided into 2 by the Yeading Brook.

The site has been identified as being a Site of Metropolitan Importance for Nature Conservation by the London Ecology Unit (now the Greater London Authority) and certain areas of the site have been declared as a Local Nature Reserve. These areas are managed by the London Wildlife Trust on behalf of Hillingdon Council.

The Yeading Brook is being restored for wildlife as part of the long-running Crane Valley Project, which is creating river meanders, backwaters, clearing scrub and investigating barriers to fish migration. Grassland habitats are managed by the control of unwanted plants, targeted meadow cutting and scrub clearance.

Find out more:

[Yeading Brook Meadows | London Wildlife Trust \(wildlondon.org.uk\)](https://www.wildlondon.org.uk)





Exposure of London Clay in the bank of the Yeading Brook near Ickenham Marsh.