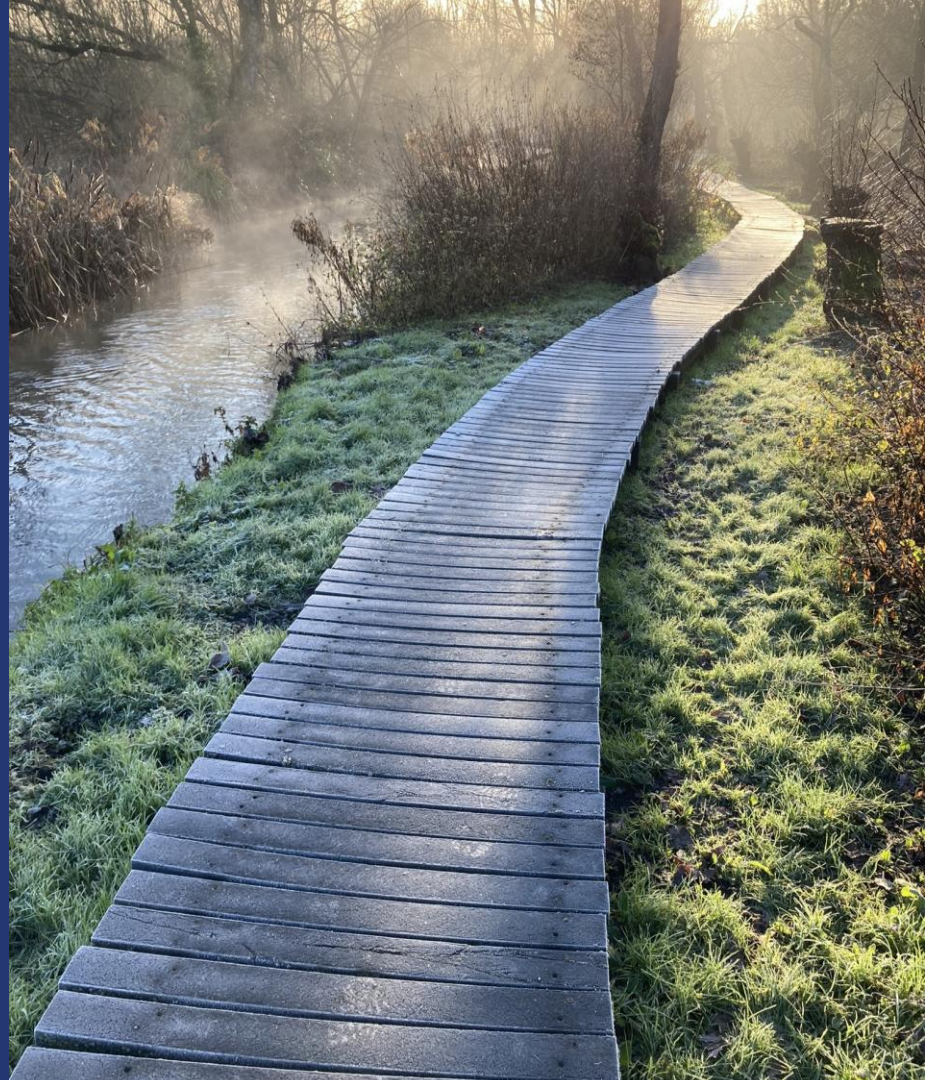


# Crane Valley Access Audits

A review of access to the green and blue corridors of the River Crane catchment



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1. Executive Summary
2. Background
3. Impact
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The Crane flows into the Thames at Isleworth

# Executive Summary

This project set out to identify the issues and opportunities around community access along the corridors of the River Crane, in line with one of the key themes of the Thames Water 'Smarter Water Catchment' programme – to promote public awareness, access and participation.

Improving access to the wealth of green spaces in the Crane catchment so that more people can use and enjoy them will have many benefits including promoting health and wellbeing, reducing our carbon footprint, delivering economic benefits, raising awareness and support from local people and promoting community engagement.

We set out to gather data on features of the built environment along the river corridors that impact how people can get into and travel through them. When combined with an understanding of the concerns, experiences and preferences of the communities that surround these spaces, this information will contribute to a long-term plan for the catchment.

This report is issued along with a geodatabase containing six GIS feature layers that have been created with data gathered in the field. The rationale and methodology for how the data was gathered is explained. The report provides examples of how the GIS information can be used to understand the access limitations and opportunities throughout the River Crane catchment.



Signs of community stewardship along the river

# Background

A key theme of the Smarter Water Catchment Initiative is to 'promote public awareness, access and participation'. This project was designed to identify the issues and opportunities around community access along the river corridors of the catchment.

The Crane river system flows through the London Boroughs of Harrow, Hillingdon, Ealing, Hounslow and Richmond upon Thames before entering the Thames at Isleworth. The river and the chain of greenspaces along the corridor are a precious resource for the communities that live within the catchment. They present opportunities for traffic-free routes for people to travel along, for play and exploration, education, supporting public health, community cohesion and ultimately, the health of the river itself.

These opportunities and benefits are not equally available to all people, and the way people are able to access and enjoy the river varies considerably along the corridor. Some sections of the river are 'hidden', flowing through straightened channels, passing underground or obscured at the rear of private properties. Some sections are inaccessible due to the development of major roads and railways that have severed the river corridor.

Where there are publicly accessible green spaces along the corridor, the quality of the access into these spaces is often poor or restrictive, which can be particularly limiting for more vulnerable users, including people with a disability. The limitations around access along the river corridor is a social equity issue in and of itself but also perpetuates problems associated with quieter, semi-derelict spaces, such as fly tipping and anti-social behaviour.

Aside from the many benefits for people and communities, improved access to greenspace can have positive impacts on the health of the river itself and the environment along the corridor. An intention of the Smarter Water Catchment approach is to enable greater community stewardship; an accessible and welcoming river corridor provides the opportunity for more people to use the spaces local to them and develop an interest and sense of stewardship. Improved access will allow more people to come together and identify common interests and goals and to be inspired by existing environmental volunteering efforts.

The coronavirus pandemic has highlighted the importance of access to local green spaces. As the number of people visiting these spaces increased significantly, there has been pressure on facilities and the environment as informal paths emerged, and existing paths have widened and become heavily trodden. Increasing the capacity of these spaces will both enhance their recreational value while protecting the environments along the river from the risks associated with overuse.

This project set out to capture the current conditions for walking, wheeling and cycling along the length of the river corridor, to identify catchment-wide and local opportunities for improving access. This information can be used by local authorities and other stakeholders and can inform the future work of the Smarter Water Catchment Initiative. This information captured has been recorded in the form of GIS feature layers, which are available to download as a geodatabase or individual layers, that show:

- Where and how people can get into the river corridor blue/green spaces
- Where paths allow people to travel along the river corridor, and the state of those paths
- Where people must cross a road or circumvent a point of severance on the corridor
- Where the riverside is not accessible at all
- The location of access control barriers in the corridor
- The location of facilities like toilets, cafes, and community centres along the corridor

# Impact

**Sustrans' vision is a society where the way we travel creates healthier places and happier lives for everyone.**

## Sustrans Case Study – The Ripple Greenway

Sustrans' vision was achieved at an under-used and derelict green space in Barking and Dagenham, through a process of collaborative design with local people.

On behalf of the council, Sustrans formed a partnership group with representatives from resident associations, local schools, police, councillors, faith groups, community groups and wildlife specialists to shape the greenway co-design process. Residents were asked to complete a survey and attend engagement events. Led walks with residents and children and an audit with a local access group helped to make sure the changes delivered better routes to school and that the design was accessible for disabled users.

Working with local people enabled the barriers that local people felt towards using the space to become clear, including children and people with a disability. The Ripple Greenway was designed with people and now provides better connections between green spaces and key locations, with nature play, public art and wildlife meadows.

**“I’ve lived next to this place for 12 years and I never used to come down here – there was no path and it didn’t feel safe. Everyone comes here now - families, runners, cyclists. I come here to work out. You’ve brought this place to life.”**

Quincy, Local Resident



# Project guidance

Our approach to the River Crane Access Audits has been led by the Sustrans Traffic-free routes and greenways design guidance: <https://www.sustrans.org.uk/for-professionals/infrastructure/sustrans-traffic-free-routes-and-greenways-design-guide/>

A key principle of the guidance is inclusive design which suggests that traffic-free routes must be planned, designed, built and maintained to be inclusive. An inclusive route will provide convenient and unimpeded access for all types of user.

The design guidance considers topics such as quality standards including core design principles; access points including considerations around the Equality Act and the use of access control barriers; signing and wayfinding; and space requirements for paths and for different user situations.

This design guidance will also be considered in the next phase of work, which will develop a series of recommendations for improving access to and along the corridor.



A bridge over the Yeading Brook in Headstone Manor

# Methodology

## Desktop research

We have considered the **river corridor** to include green spaces that are connected to the catchment's river corridors either directly or via other green spaces. So far the Yeading Brook, River Crane and Portlane Brook have been captured and other river corridors including the Longford and Duke of Northumberland rivers will be included in the data at a later date.

The first stage of this project was to understand the catchment, plan site visits, and collate relevant information to inform our approach. Spatial information that was collated included the Crane waterbodies, borough boundaries, and other information that can provide an interesting overlay to the accessibility of green and blue spaces in the catchment, such as the Index of Multiple Deprivation. We completed an introductory walk with LGOAL, the community specialist on the SWC project, to gain local knowledge and insight into progress that has already been made to improve access along the river.

We also identified information about routes, including TfL cycleways, the National Cycle Network and other more local walking routes that have maps available online, including those that have been developed by FORCE:

- The 'Wild Walk' that links Hounslow Heath to residential areas like North Feltham
- The Feltham Loop
- The Three Rivers Walk
- The Dragonfly Trail

This information we collected in the initial phase was useful for informing our approach to data collection and will be important to consider further within the next phase of the Crane catchment access work when we look at where improvements are needed and where they should be prioritised.



## GIS

We used ArcGIS Online to create a data structure that would allow us to accurately and consistently capture features that impact access throughout the entire river system corridor. We developed this structure through an iterative process based on desktop research and site visits and we used a mind mapping tool, Coggle (an example output is pictured overleaf) to help draw out the best approach. We also consulted with colleagues from the SWC programme team.

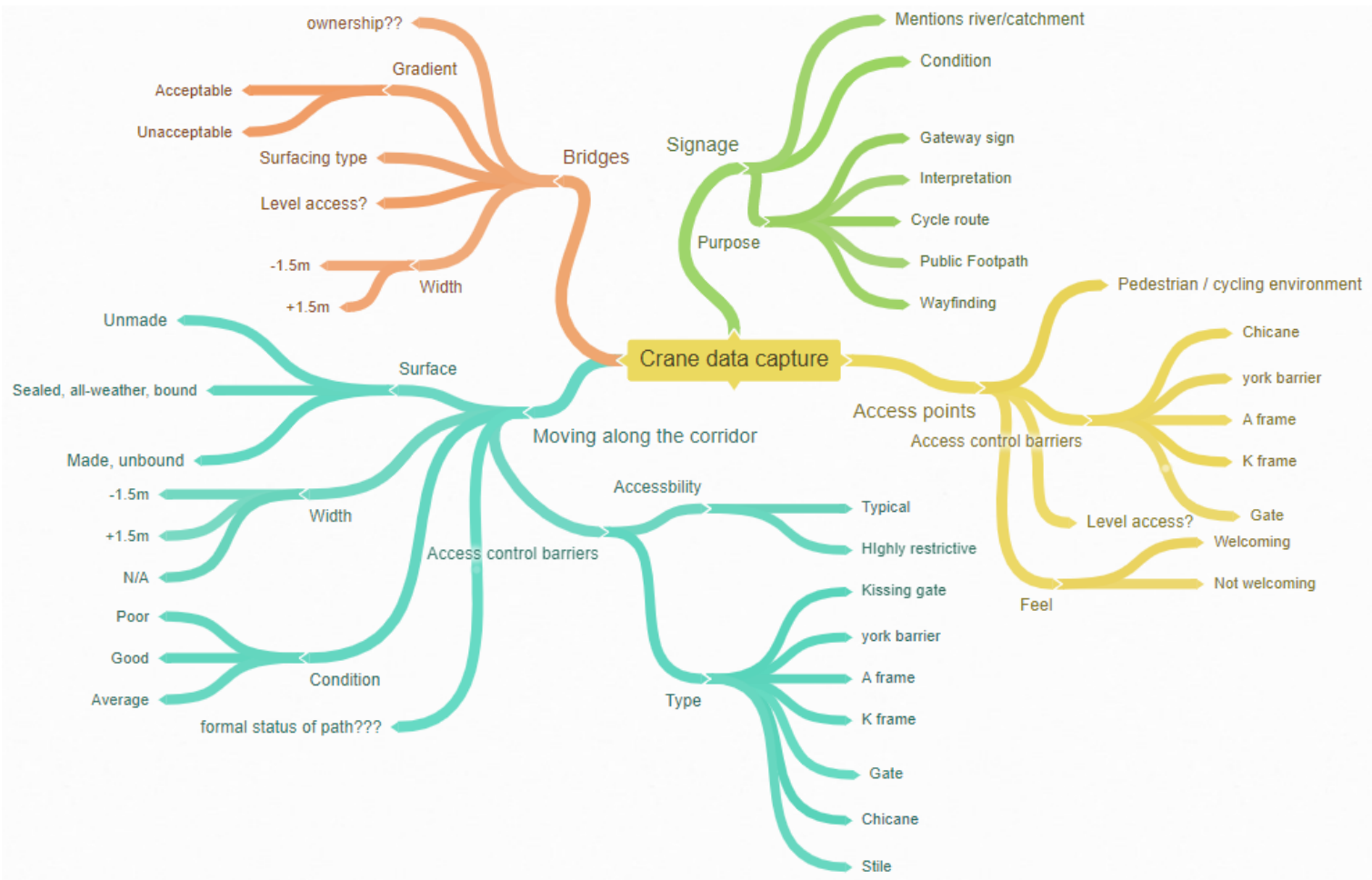
The rationale for each of the feature layers included in our data collection structure is described in the following pages. The details described have been incorporated into the GIS feature layers through the use of ‘fields’ and ‘attributes’.

## Site Visits

During the course of five site visits, we used ESRI Field Maps – a GIS mobile app - to input geo-referenced features in real-time, including unique images. We started in Harrow and finished at the confluence with the Thames.



Sustrans received an introduction to the Crane from LGOAL

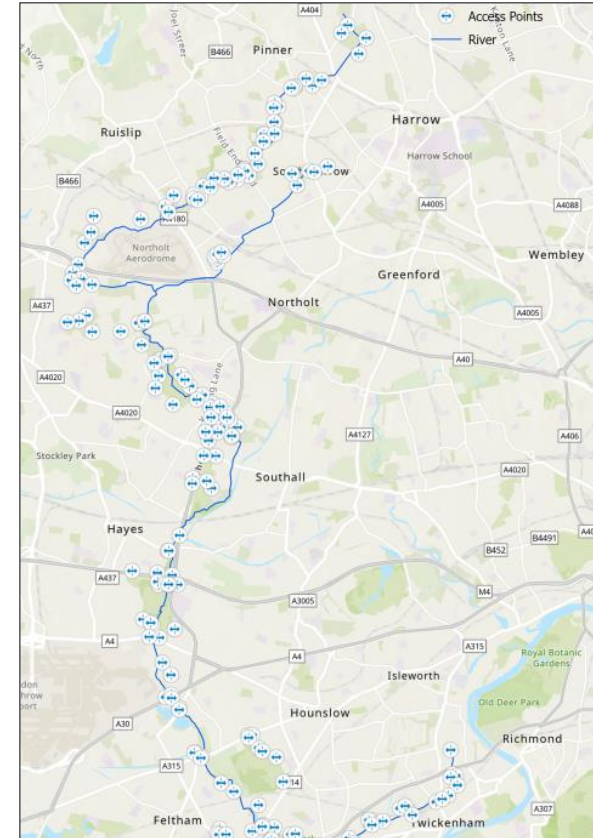


## Access Points

Access to green spaces tends to be highly controlled, and people are usually channelled to specific 'access points', by fences, bollards, ditches, and private property. The characteristics of 'access points' vary widely.



We have collected information to describe how accessible the access points are for different users such as widths, surfacing, and presence of barriers, along with qualitative information that reflects the 'feel', such as presence of signage or other gateway features.

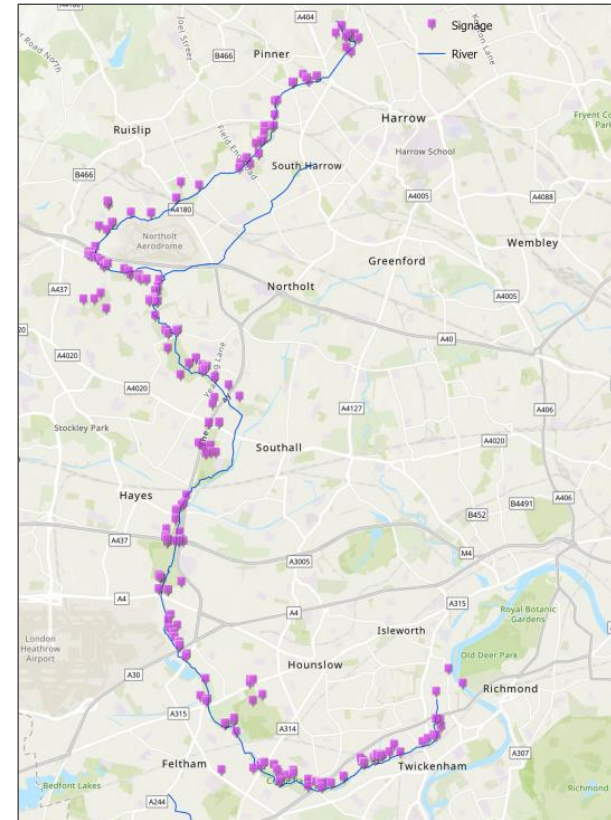


## Signage

Signage has different purposes and takes various forms within the river corridor and can add to the sense of place and community stewardship.

We have captured all signage observed along the corridor and have categorised their purpose using attributes like interpretation (information about the area), wayfinding, gateway feature, presence of maps.

We have also recorded the condition of signs. Names routes have also been captured, including the London Loop, the Hillingdon Trail, and the Crane River Walk.

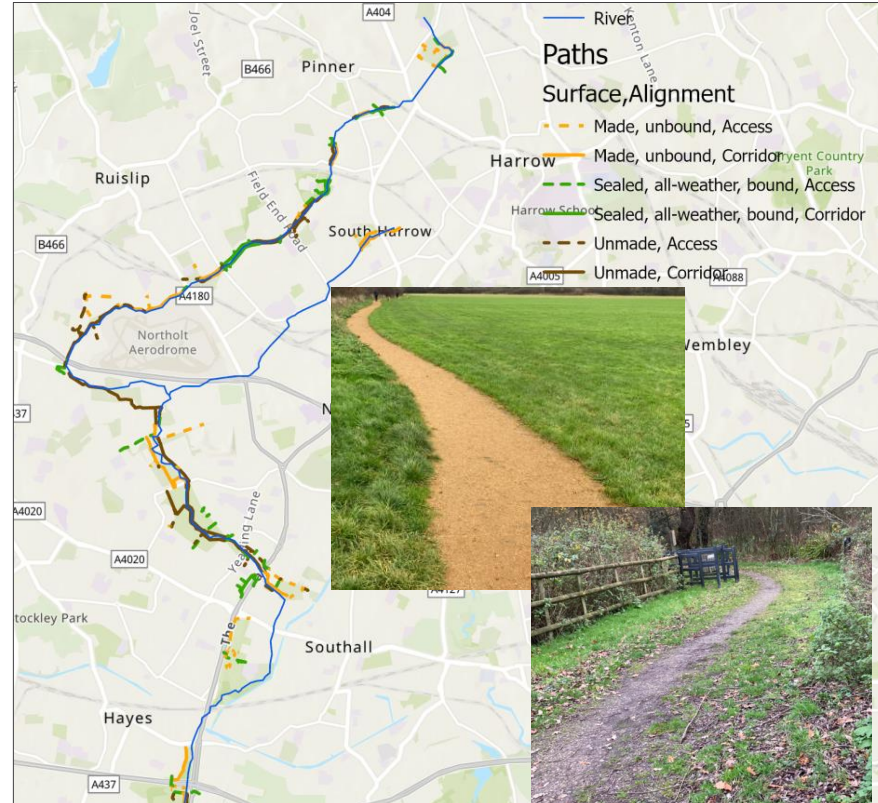


## Paths

Paths vary widely in quality, formality and character. We have described both corridor paths – those that run along the river – and access paths – those that connect an ‘access point’ to the river or to the broader river corridor. This distinction has been made to help understand the potential for people to both travel along the corridor and to simply access the space. We have also distinguished three path surface types:

- Unmade - no discernible surfacing applied to the path; the path is indicated by signage or by the pattern of usage
- Made, unbound – an unbound surfacing occurs on the path, such as compressed gravel, often with a clear border
- Made, all-weather bound – the path is made of a hard, sealed surface, such as tarmac, concrete, or boards

The surfacing combined with the condition, width and presences of barriers indicates the accessibility of the path for different users.



## **Barriers**

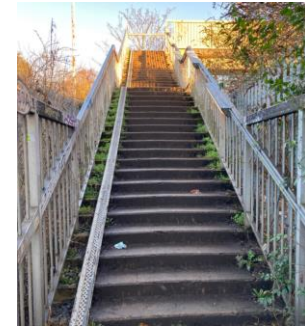
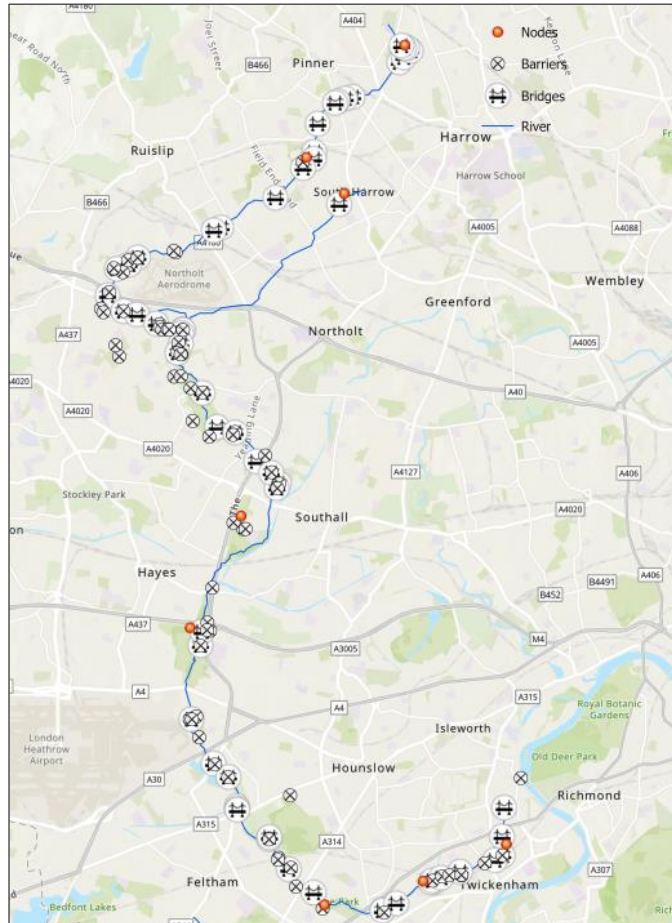
Some barriers, like steps, are features of the built environment with a specific purpose that happen to exclude some users. However, many barriers, especially in green spaces and at footpaths, are engineered structures designed to prevent certain users, often people using motorbikes, from accessing a space, which can also make it more difficult for valid users of a space to enter; they can also affect the feel of an area, making people feel unwelcome. The type and restrictiveness of barriers that occur within green spaces is recorded in this feature layer. Where barriers occur at an access point, they have been included in the attributes of the 'access points' feature layer.

## **Bridges**

Bridges occur throughout the catchment along the corridor and access paths. They often present additional accessibility challenges, especially due to widths, pitch and surfacing, details that have been included in the data. Bridges are a feature that will have implications for future efforts to identify, prioritise and improve access in the catchment. In some cases ownership of these structures is unclear, which presents challenges around asset maintenance and improvement.

## **Nodes**

Provision of toilets, cafes and other facilities is an often overlooked feature affecting the accessibility and attractiveness of areas for different people, whether for recreation, active travel, or volunteering activities. Where these are located around the catchment will impact on who can use the spaces and the activities that individuals and groups take part in.



## Severance

Points where a road, railway, or other barrier must be crossed, sometimes requiring a diversion away from the river corridor, will often present a barrier or deterrent to moving along the corridor. These will be key features to address when improving accessibility along the river corridor. The data in this layer includes information about the way people currently get over or around the point of severance.

## Corridor gaps

Some sections of the river are culverted or flow through private land so there is 'zero access'. For people trying to follow the corridor this will require a diversion away from the river corridor and onto the roads. Other sections are difficult to reach or are uninviting because there is no 'through access', due to severance from roads and rail. Where access cannot be opened up, improvements to the road environment will be required to improve continuity along the corridor.





**Table 1** Summary of the feature layers being issued with this report.

Feature Layer	Data type	Description	Number or total of features
<b>Access Points</b>	Points	Points of entry to the riverside and riverside green spaces.	232
<b>Paths</b>	Lines	Corridor paths along the river and access paths between access points and the river	63.2 km
<b>Signage</b>	Points	Signs, maps, wayfinding and information points installed along the corridor.	281
<b>Barriers</b>	Points	Physical barriers to restrict some users from accessing a path or greenspace	79
<b>Bridges</b>	Points	Points where a bridge forms part of the path along the corridor or access paths	65
<b>Corridor gaps</b>	Lines	Sections of the river with no access to the corridor	42.6 km
<b>Severances</b>	Points	Points where the corridor is severed by a road or railway etc. that must be crossed	25
<b>Nodes</b>	Points	Locations with toilets and a café; other facilities, such as an information centre or volunteering hub, may also be present.	2 with toilets and café

# Results

A large quantity of data has been gathered using the structure outlined in Table 1. To demonstrate some of the different ways this data can be used, we have included data headlines that relate to the whole catchment; a summary for each borough including a selection of 'key statistics'; and a selection of case studies that highlight what the data shows in certain greenspaces around the catchment.

The statistics provide a quick indication of the current conditions and opportunities for improving access around the catchment but there are many other potential uses, including supporting the next phase of this project outlined in the Next Steps section.

In the following pages we have also considered the implications of the data for the Crane Valley Trail, for cycling as a mode of transport along the corridors, and for understanding and improving external links to spaces beyond the corridors, such as other waterways like the Grand Union Canal and rivers including the Thames, Brent, and Colne.



The Crane flows through a railway underpass at Feltham Marshalling Yards

## Crane Valley Trail

The main barriers that have been identified for achieving a coherent and high quality Crane Valley Trail are:

- Connectivity gaps at along the corridor, due to severance points such as roads, railways and no through areas without public access. Major examples of this include the A30, which requires a diversion
- Poor path condition with small proportion of sealed paths that are suitable in all weathers - paths very muddy during winter
- Presence of access barriers at access points and throughout green spaces that restrict different types of people including people using mobility aids, pushing prams/buggies, or who simply require a more even, hard surface to access a space.
- Limited frequency of 'nodes' with facilities such as public toilets, cafes, etc.

## Current conditions for cycling

While the main questions around access through the catchment in this project relate to walking (including wheeling), access for cycling is also an important consideration, especially to understand the potential for a catchment length walking and cycling trail and for the potential of the corridor to support wellbeing, leisure and active travel.

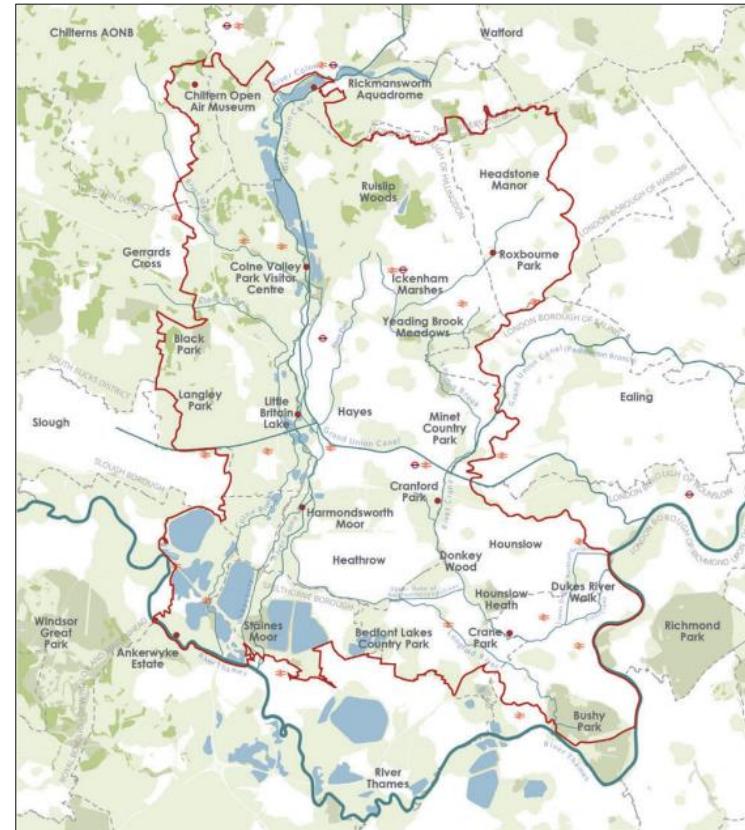
While the *conditions* for cycling can be ascertained through the data (i.e. through the presence of access barriers, condition/presence/width of paths), the *legality* and *appropriateness* of cycling in different locations under current conditions is less apparent. There are currently few formal designated cycle paths along the river or within the green spaces of the river corridor. Informal cycling is difficult due to the condition of paths and use of access control barriers.

## Wider links

While this phase of the project has focused on gathering data about the green spaces along the river corridors of the Crane catchment, (so far the Yeading Brook, River Crane and Portlane Brook), access to the rich green infrastructure in the catchment is a broader question that will be examined in greater detail in the next phase of work for the project.

We will bring our understanding of the baseline conditions for access to these spaces together with the Colne and Crane Green Infrastructure Strategy to develop a River Access Improvement Plan.

We will look not just how to support people to travel along the corridor and to get into the green spaces, but also at how to create links with all of the green infrastructure within the Colne and Crane Green Infrastructure strategy area, including the Colne river system, the Grand Union Canal, the Thames, and Chiltern Hills AONB. We will also look at the links into the urban areas of the catchment, where hundreds of thousands of people live.



## Data Headlines

- 232 is the total number of access points visited
- Less than 8% of these access points could be considered accessible to all users (barrier free, level surface, good width)
- 63.2 km of corridor and access paths has been evaluated. Of these
  - 28% are sealed paths
  - 35.8% are made, unbound paths
  - 36.2% are unmade paths
- Of the corridor paths (i.e. not including paths between access points and the corridor) 11km of these are made, all-weather bound which is around 10% of the potential river frontage
- 36.8km of river frontage has no access at all, while 5.8km has no through access so cannot be travelled effectively



Yeading Brook Meadows, London Borough of Ealing

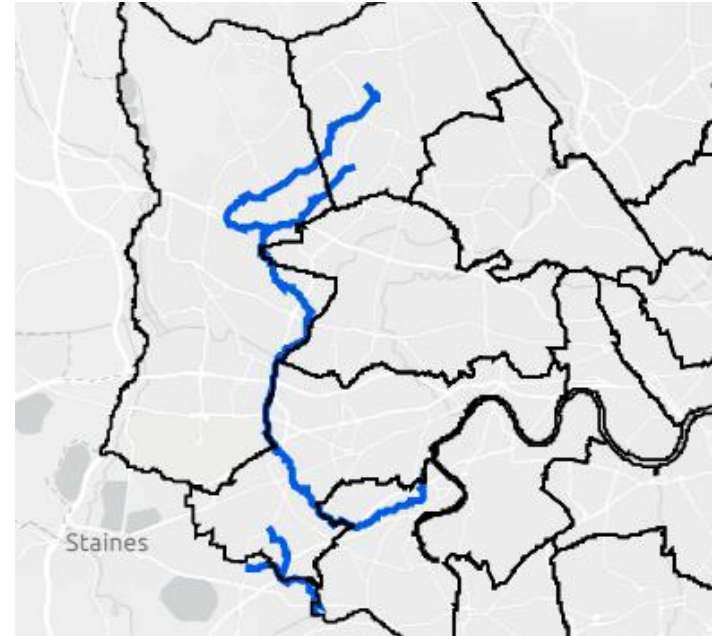
## Boroughs

The Crane river corridor encompasses five boroughs and the data collected (which is being issued with this report) can be filtered to show information relevant to each borough individually.

A summary of the corridor in each borough has been provided.

The characteristics within each of the boroughs that are of interest include:

- The types of green spaces that are found along the corridor and whether these are well connected to the river.
- Strengths and weakness in each borough, such as whether access barriers are frequently used and the use of different path surface types.
- Whether access points are well positioned and welcoming for local people.
- The amount of corridor that can be accessed and where there is zero access.



The Crane river corridor flows through 5 London boroughs

## Harrow

- A combination of urban parks and areas of zero access to the river due to culverting and private property.
- Yeading Brook West emerges in Headstone Manor Recreation Ground, which has had recent improvements to access, including improved paths and bridges.
- Yeading Walk is a welcoming and accessible linear green space, which is also a pleasant cycle path and can be compared to another linear green space further south - it has barriers at the access points and does not have sealed paths, as in Yeading Walk.
- Roxbourne Park, which connects to Hillingdon, has a mixture of good and poor access; corridor paths are inconsistently sealed and unsealed.
- Yeading Brook East can be accessed at Newton Park but otherwise access is poor along this arm.

### **Key statistics:**

Total length of river in Borough – 5.9km (11.8km river frontage)

Total length of frontage with zero access – 8.1km

Total amount of sealed corridor paths (both sides of river) – 2.8km



A wide, sealed, all-weather path through Yeading Walk

## Hillingdon

- Corridor formed of a combination of linear greenspaces and large parks including Stafford Road Open Space, Ruislip Woods, Gutteridge Wood, Ickenham Marsh, Ten Acre Wood, Yeading Brook Meadows, Minet Country Park, and Cranford Country Park.
- Much of the riverside is 'open' in Hillingdon, however there are very few sealed paths and many restrictive access control barriers both at access points and within greenspaces, which is likely to impact who is using these spaces.
- The Hillingdon Trail is waymarked for much of the corridor through Hillingdon.
- Proportionally fewer areas of zero access, but there is a long section of zero or no-through access between Brookside green space and Cranford Country Park.

### **Key statistics:**

Total length of river in Borough – 19.3km (38.6km river frontage)

Total length of frontage with zero access – 21.7km

Total amount of sealed corridor paths (both sides of river) – 12.5km



Hillingdon Trail and public footpath signs in Ickenham Marsh, Hillingdon



## Hounslow

- The river forms the border for a stretch between Hounslow and Hillingdon and then to the south between Hounslow and Richmond.
- Despite several points of severance, much of the river is ‘open’ on at least one side.
- A combination of narrow linear green spaces and larger green spaces including Hounslow Heath and Pevensey Road nature reserve. Paths through these spaces are nearly all unsealed (and therefore very muddy), except for some areas of boarding.
- Access barriers are frequently used at access points, including in recently improved green spaces. The quality of the paths improves along the section forming the boundary with Richmond. Surfacing issues continue to act as access barriers.

### **Key statistics:**

Total length of river in Borough – 8.5km (17km of river frontage)

Total length of frontage with zero access – 8.5km

Total amount of sealed corridor paths (both sides of river) – 2.4km



Pevensey Road Nature Reserve

## Richmond upon Thames

- Crane Park, Kneller Gardens and Twickenham Rough make up a high quality, continuous stretch of green river corridor as the Crane flows into Richmond. These spaces are rich with signage, access points, and paths including sealed, all-weather paths. Access points are largely barrier free although some that feature swing gates.
- There is a greater sense of community stewardship and investment here than in other areas of the catchment. Wide paths and clear access points help to manage the potential conflict inherent in higher use levels.
- Further downstream much of the final stretches of the corridor between Twickenham and the Thames have zero access, with occasional urban parks, such as Moormead and Bandy Recreation Ground, which create some points of access to the river.

### **Key statistics:**

Total length of river in Borough – 6.4km (12.8km of river frontage)

Total length of frontage with zero access – 6.4km

Total amount of sealed corridor paths (both sides of river) – 8km



A good quality path in Crane Park

## Ealing

- The river corridor in Ealing is limited to an eastern portion of Yeading Brook Meadows greenspace where the river forms the boundary with Hillingdon, north of Kingshill Avenue. Access to this greenspace is restricted through use of access barriers and all paths are unsealed.

### **Key statistics:**

Total length of river in Borough 2km

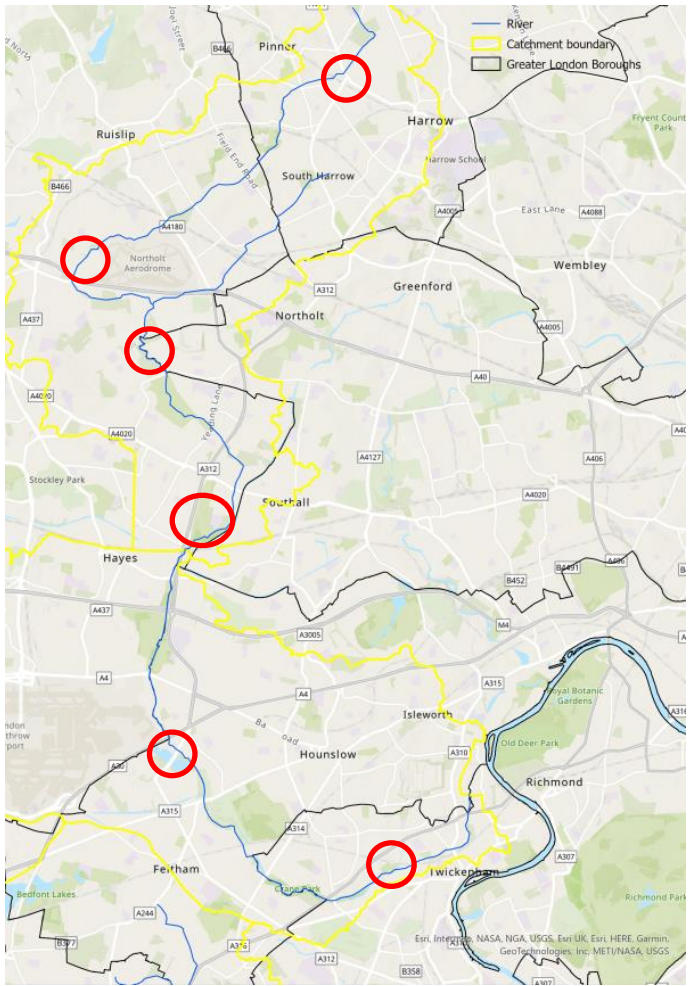
Total length of frontage with zero access – 0 km

Total amount of sealed corridor paths – 0 km



An unmade path in Yeading Brook Meadows

Case studies have been provided for the spaces highlighted in the image.

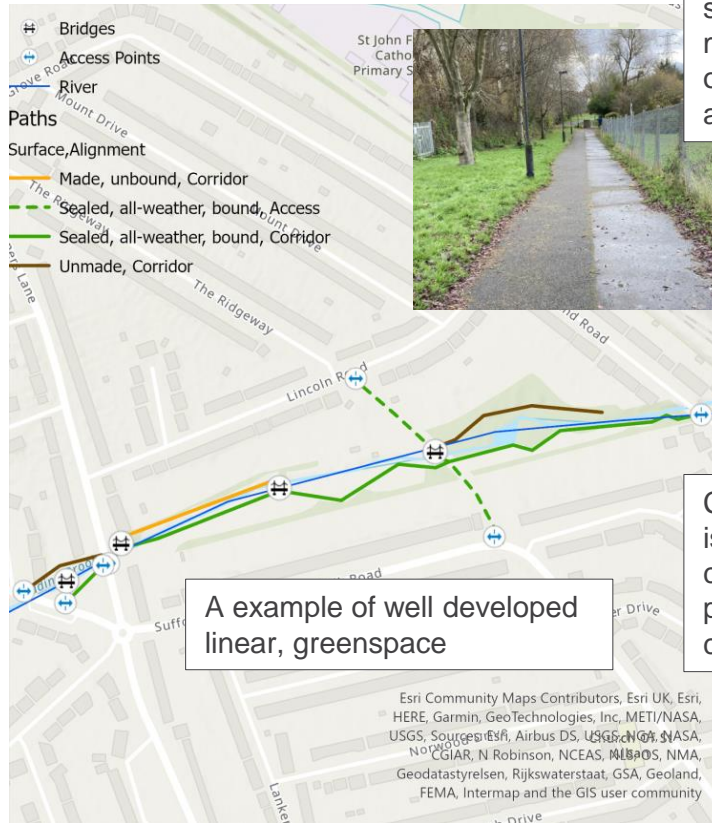
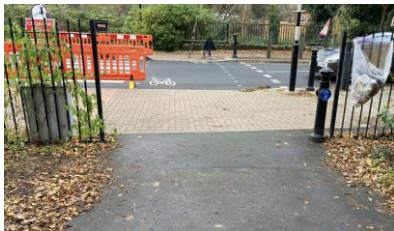


## CASE STUDY

# Yeading Walk, Harrow



Access points into the space are free from restrictive barriers and with access on all sides the space is open with good usage, which adds a sense of personal security



A example of well developed linear, greenspace

One continuous, wide, sealed path on one side of the river which provides access to most users. Less formal unsealed paths on the northern side provide a fun alternative.



Corridor connectivity is supported by road crossings that prioritise walking and cycling



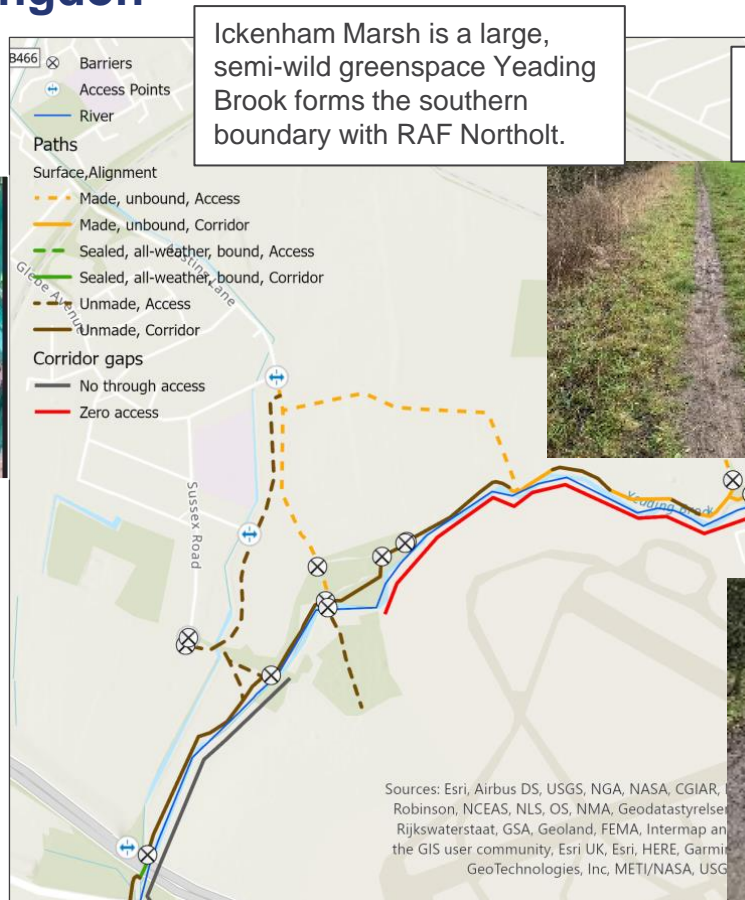
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## CASE STUDY

# Ickenham Marsh, Hillingdon



Access control barriers throughout the site exclude some users, including wheelchairs and people with buggies. They create an unwelcoming feel.



## CASE STUDY

# Minet Country Park, Hillingdon

The southern end of the space is underused due to lack of access across the canal and railway. The river corridor is not obvious from within the space.



Access control barriers may exclude some users including wheelchair users and people with buggies



## CASE STUDY

# Yeading Brook Meadows, Ealing

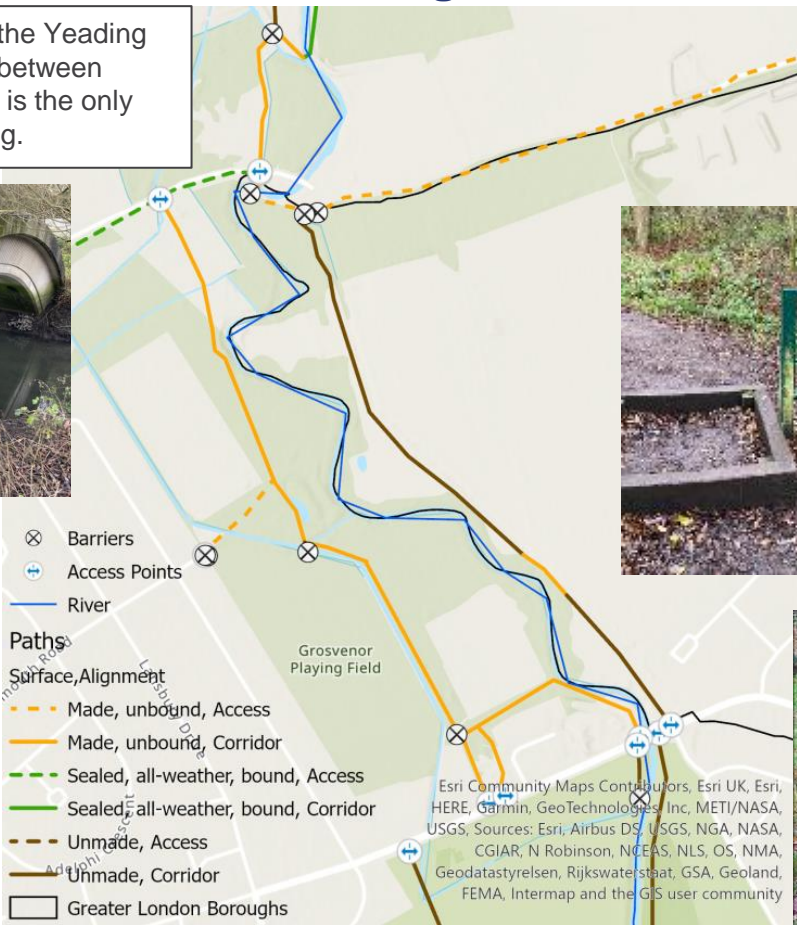
North of Kingshill Avenue, the Yeading Brook forms the boundary between Hillingdon and Ealing. This is the only section of riverside in Ealing.

Access points are restricted and may exclude some users including wheelchairs users and people using buggies



Access from Charville Lane is via a stylised bridge installed in the 1980's however it is steep and slippery excluding some users.

Poor access may reduce footfall adding to a sense of isolation that may put more vulnerable users off.



Paths are unmade and muddy in wet weather. They likely exclude some users.



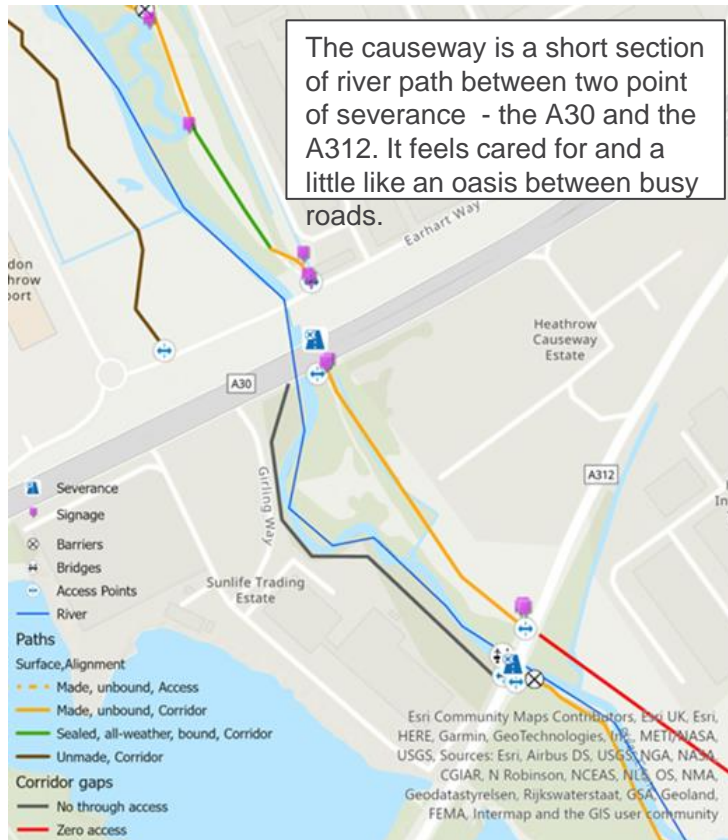
## CASE STUDY

# The Causeway, Hounslow

Path on eastern side is an old made, unbound path, which has become overgrown and lost width.



Despite the severance, signage creates a welcoming feeling



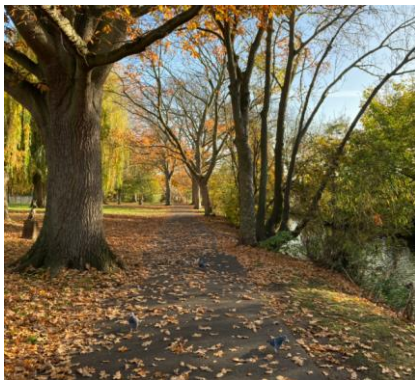
A diversion of 1.5km is required to get around the A30. This barrier is likely to discourage people from venturing further south or north along the corridor.



## CASE STUDY

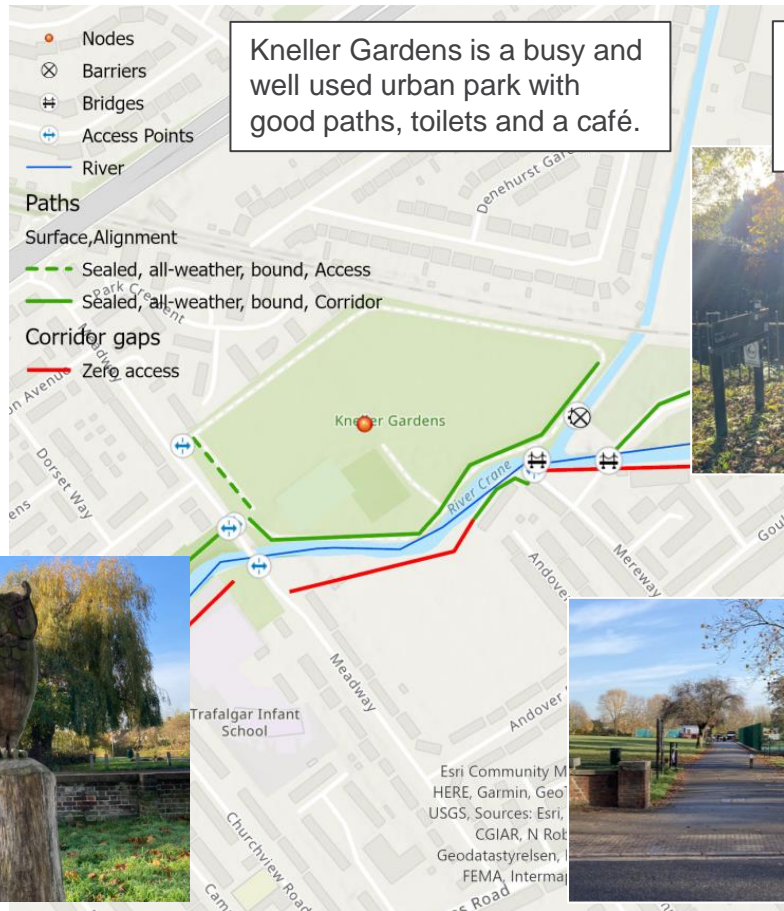
# Kneller Gardens, Richmond

Paths are wide, sealed and accessible for most users, including a sensory path for visually impaired users.



Kneller Gardens is a busy and well used urban park with good paths, toilets and a café.

Access points are open and accessible, including bridges and road crossings (although there is no pedestrian priority on Meadway)



Gateway features create a welcoming sense of place.



# Next Steps

Having carried out a thorough on-the-ground audit along the whole River Crane corridor, we have established a complete baseline picture of conditions for access by walking, cycling and wheeling, by mapping access constraints, barriers and access gaps.

The next phase of work will build on this baseline and identify a comprehensive set of possible future improvements. This 'long list' of potential improvements will be prepared in a geo-coded spreadsheet and presented in the form of a River Access Improvement Plan that clearly identifies the types of proposed interventions and high-level cost estimates.

Through CVP, the Plan will be developed and shared with relevant London Boroughs and other key stakeholders to ground truth the proposals with local experts and gain their buy-in. We will conduct a review of all local policy and strategy documents to ensure proposals are complementary to existing documents, such as

- Local Implementation Plans
- Local Plans
- The Colne and Crane Valleys Green Infrastructure Strategy



The Portlane Brook

We will also incorporate usage data, to help consider potential impact within the River Access Improvement Plan and better communicate opportunities with key stakeholders.

While this phase of work focused on the Crane River, Yeading Brook and Portland Brook corridors, the next phase will also complete data points for the Longford River and the Duke of Northumberland rivers north and south.

We will liaise with LGOAL and other project partners to test the identified interventions and to seek crowd-sourced hyper-local suggestions for any additional complementary measures such as places to rest, play along the way features or additional wayfinding needs.

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