

# 1. Colne River Valley



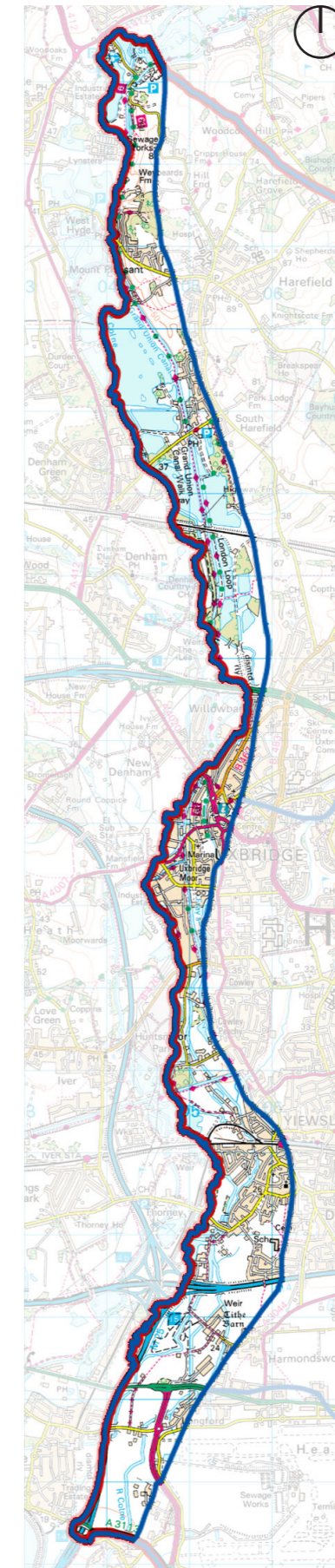
Key plan

## Description

The Colne River Valley Natural Landscape Area follows the Colne River north to south on the western fringe of Greater London, from Stocker's Lake near Batchworth in the north to Heathrow Airport in the south. Between Batchworth and Uxbridge the valley floor consists of a series of lakes and reservoirs, edged by ridges and plateaux within the neighbouring Ruislip Plateau (NLA 2) and the Hayes Gravels (NLA 10). As the River Colne meanders south and the Grand Union Canal heads east, the topography gradually levels; historically the River Colne would have meandered wider here, resulting in an extensive area of deep silt soil across an exceptionally wide floodplain. The Colne River Valley has been and continues to be important both as a source of water and for trade navigation.

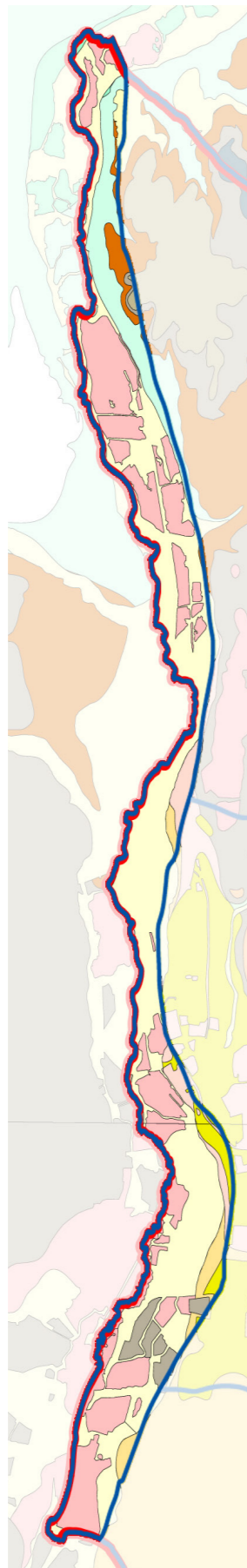
The bedrock geology is diverse, ranging from undifferentiated chalk in the north (the margins of the Chiltern Hills) to chalk with hard nodular chalk horizons (the Lewes Nodular Chalk Formation) north of Uxbridge, to London Clay. There are extensive areas of river terrace gravels on the valley floor between Uxbridge and Heathrow, but as the river floodplain broadens to the south near Heathrow, areas of alluvium and seasonally wet deep clay or loam predominate.

Within the northern Colne Valley, the settlement pattern is relatively sparse, although there is a corridor of villages along the Grand Union Canal. To the south the valley is more densely developed than the north, with industrial towns such as Uxbridge, Yiewsley and West Drayton and London's largest airport, Heathrow. The historic cores which remain within the settlements of Harefield, Uxbridge, West Drayton and Harmondsworth suggest how settlement patterns have evolved within this area. Despite the intense residential and industrial development around Uxbridge, the linear open space corridors that follow the River Colne, Grand Union Canal and the lakes that they support are dominant landscape features. The waterways and lakes are typically bordered by marginal wetland vegetation and wooded areas. To the south the river corridor is surrounded by urban development, but to the north there are extensive areas of arable farmland or golf courses. The extraction of sand and gravel has had a profound effect on this landscape, with many pits flooded, creating reservoirs. Others have been backfilled and reclaimed; many of these have been returned to agriculture.



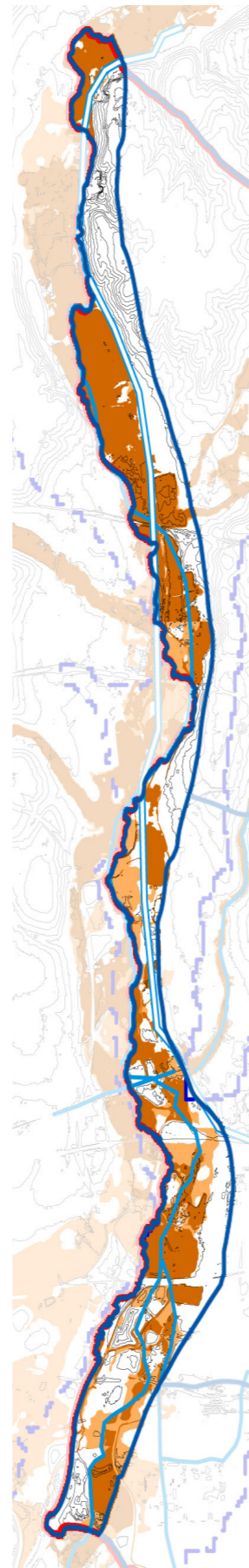
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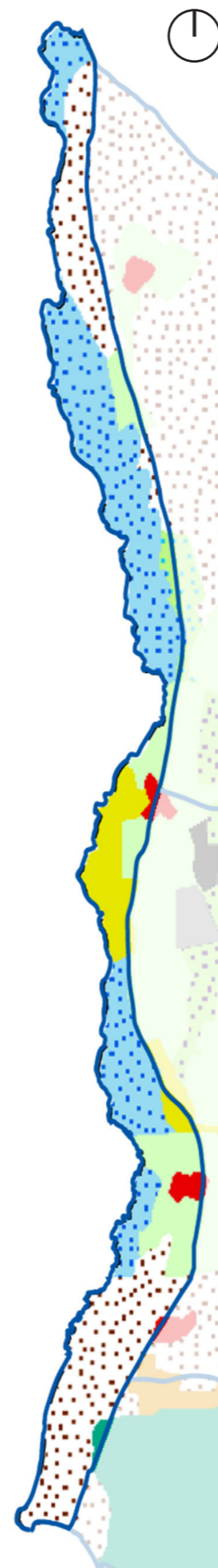
Geology

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Rivers and Topography

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Historic Development

ACKNOWLEDGEMENT: ENGLISH HERITAGE DATA

## Natural Signature and natural landscape features

**Natural Signature:**  
**Colne River Valley – Fast-flowing, clean river set within floodplain meadows bordered by damp woodland.**

The Colne River is one of the finest river systems in London, and incorporates the rivers Wraysbury and Frays. These originate as chalk streams and collectively support an exceptionally diverse fen flora and fauna. The rivers flow within extensive unimproved floodplain meadows, which are interspersed with wet woodland and flooded gravel pits. The mosaic of wetland and riparian habitats supports kingfisher, heron, water vole and even otter, as well as wintering waterfowl and passage migrants. The majority of the rivers and lakes are accessible to the public and act as valuable habitat and recreational resources; they are popular with bird watchers. The ridges bordering the valley offer excellent views to the rivers and lakes.

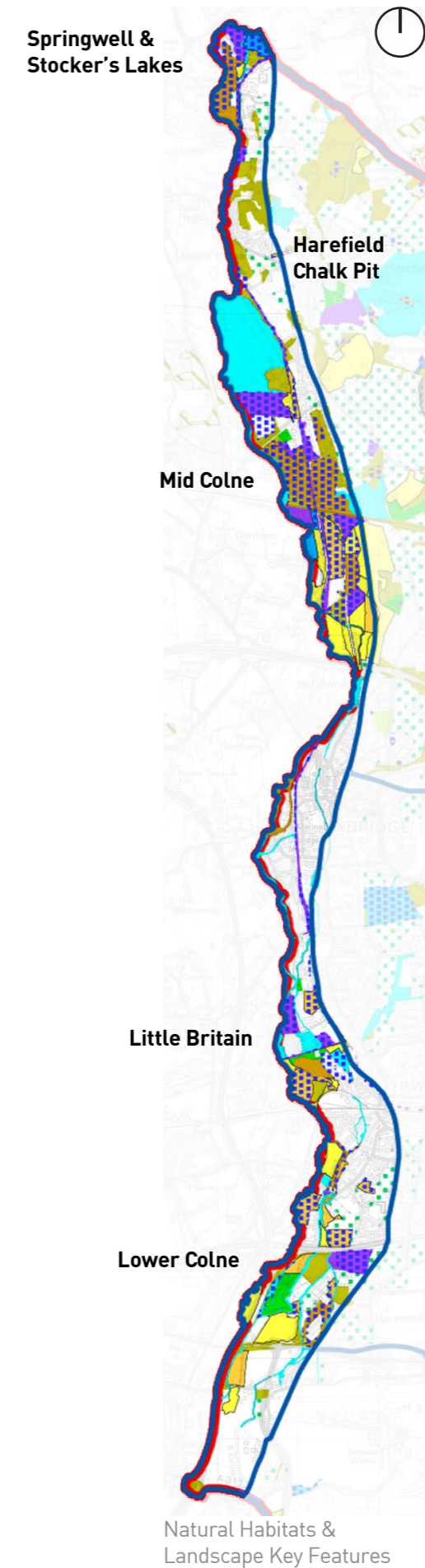
Examples of Natural Landscape Features within the Colne River Valley Natural Landscape Area are:

- **Lower Colne** – From Stanwell Moor to Uxbridge is one of the finest river systems in London, including sections of the rivers Colne, Wraysbury and Frays. These rivers originate as chalk streams and collectively support diverse aquatic and marginal flora, including unusual plants such as the river water-dropwort, great yellow-cress, and the nationally rare pennyroyal. The mosaic of wet meadows, flooded gravel pits, ponds, alder-willow woodland and an old orchard provides habitat for kingfisher, grey wagtail, water vole and many other rare species, while the rivers support a diversity of fish, including dace, chub and the uncommon barbel. There is widespread public access via footpaths, and Harmondsworth Moor is also freely accessible.

- **Mid Colne** – The unimproved wet pastures of Frays Farm Meadows (a SSSI and Local Nature Reserve) support rich flora and wintering waders such as snipe, as well as a population of harvest mice and glow worm. The adjacent Denham Lock Wood (SSSI) is one of few wet alder-willow woods in London with an exceptionally rich fen flora. The extensive flooded gravel pits are very important for breeding and wintering waterfowl, and also for passage migrants. Water vole are present and there are also recent reports of otter in the vicinity.
- **Little Britain** – This area of the Colne valley has a remarkable variety of habitats including lakes, rivers, scrub, areas of wasteland, woodland and neutral grassland. The Colne and Frays rivers are clean, fast flowing and support an interesting range of marginal habitats, including valuable areas of wet woodland. Of particular importance are the areas of unimproved floodplain grassland, which support a lush flora including the nationally scarce tasteless water-pepper and London rarities marsh arrowgrass, marsh speedwell and sharp-flowered rush. The lakes were originally gravel pits which now attract various breeding and wintering birds, despite the heavy angling presence. Other former pits have been landfilled and capped, and now support early successional communities, scrub and young woodland.

- **Harefield Chalk Pit** – Oak woodland which has developed on an old chalk pit. Harefield Pit comprises a strip of dense woodland on steeply undulating higher ground to the south, and a wooded seasonally damp basin to the north, where the woods are interspersed with areas of grassland. The woodlands are dominated by pedunculate oak, hawthorn and elder.
- **Springwell & Stocker's Lakes** – Sites of great ornithological importance. These flooded former gravel workings support a range of wintering waterfowl, including coot, tufted duck, gadwall, shoveler, teal and pochard. The sites support one of London's few heronries, and other breeding birds include reed bunting, reed warbler and sedge warbler. They are very popular with birdwatchers and there is free access to both reserves.

Underlining the Natural Signature of the



## Colne River Valley

### Key influences

- Opportunities for river restoration, particularly within water meadows and wet woodlands.
- Seasonal transition – between wet and dry areas, as water ebbs and flows.
- Meandering waterways, traces of former channels and oxbows.
- Views across the river floodplain – water, meadow and woodland.
- Effects of quarrying.
- Chalk streams – rare, exceptionally diverse flora and fauna.

### Design clues

Ideas for place making and shaping future design decisions - how the Natural Signatures for each natural landscape area might be expressed within the wider public realm, through new development and landscape management projects.

- Meandering swales, ponds and flood attenuation basins, with transitional vegetation, from open water to bog, damp meadows and alder-willow woodland. Boardwalks, decks and jetty viewpoints/ seating areas alongside.
- Curving lines of trees (pollarded willows or poplars), which pick out subtle changes in landform. For instance winding ridges and berms, perhaps alongside greenways or car parks.
- Wet woodland planting, bordering areas of damp wildflower meadow – within courtyards or small open spaces which are inaccessible, but a focus for local views.
- Lakes and extensive floodplain meadows as a focus for new development and views.
- Take advantage of other nearby waterways to increase connectivity.

## Colne River Valley – Key environmental assets

Environmental Asset	Relevant borough	Notes
<b>Lower Colne Valley</b>	Hillingdon	System of Colne, Wraysbury & Frays chalk streams; London’s only population of pennyroyal; support diverse aquatic & marginal flora.
<b>Mid Colne Valley</b>	Hillingdon	System of chalk streams; passes through several SSSI, inc Frays Farm Meadows and Denham Woods.
<b>Little Britain</b>	Hillingdon	System of lakes and neutral grassland; formerly gravel pits and wasteland; high bat populations.
<b>Harefield Chalk Pit</b>	Hillingdon	Oak woodland developed over an old chalk pit.
<b>Springwell &amp; Stocker’s Lakes</b>	Hillingdon	Flooded former gravel workings; sites of great ornithological importance; one of London’s few heronries.
Fray’s River at Uxbridge Moor	Hillingdon	Diversity of wetlands plants and adjacent recreational fields
Canals	Hillingdon	Reeds and waterfowl habitats. Trees and scrub on towpaths.