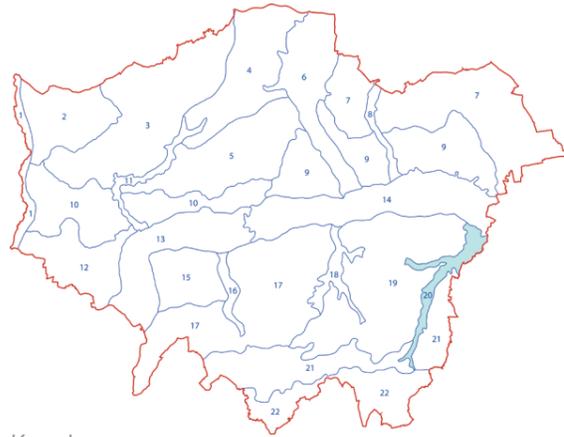


# 20. Cray River Valley

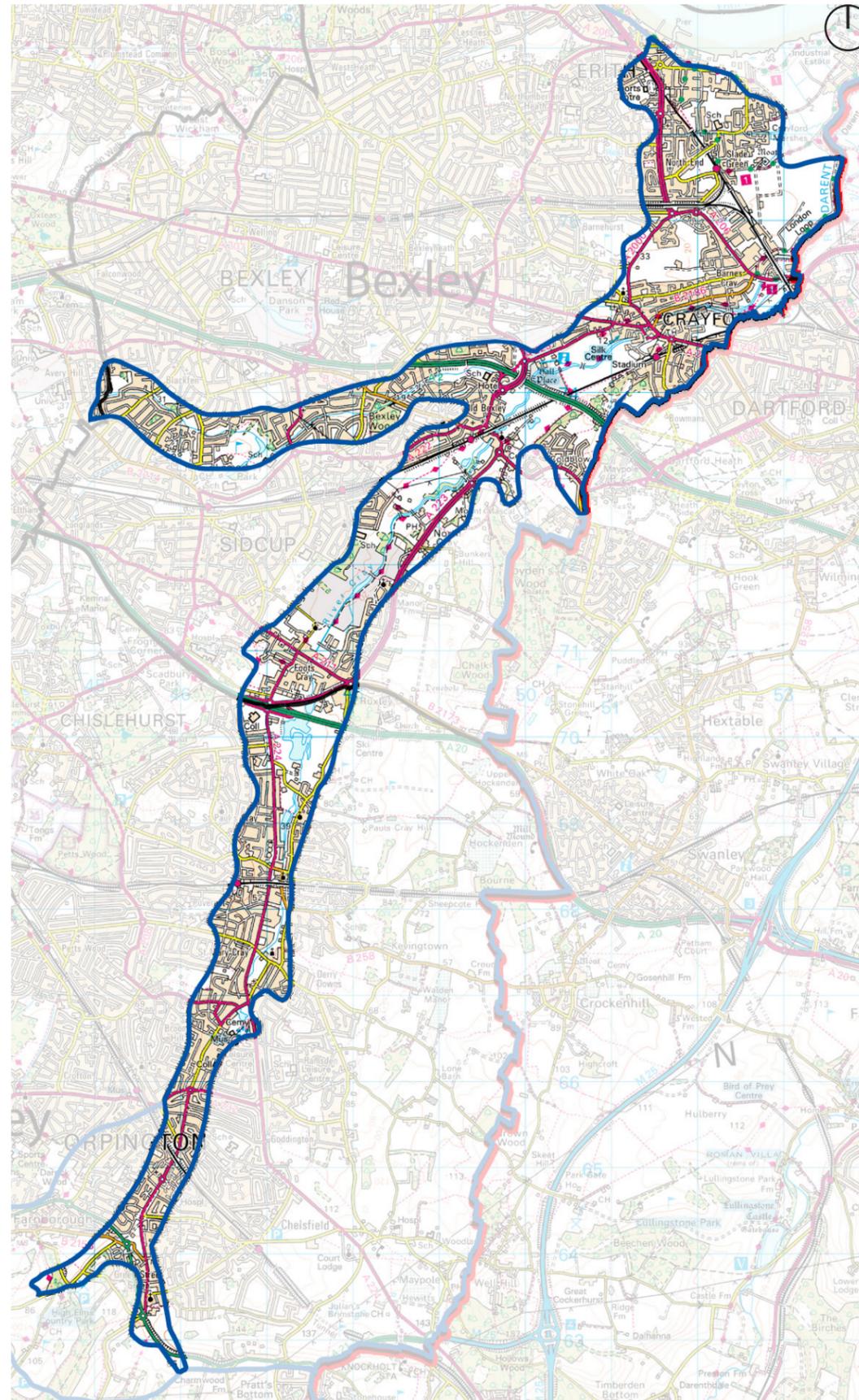


Key plan

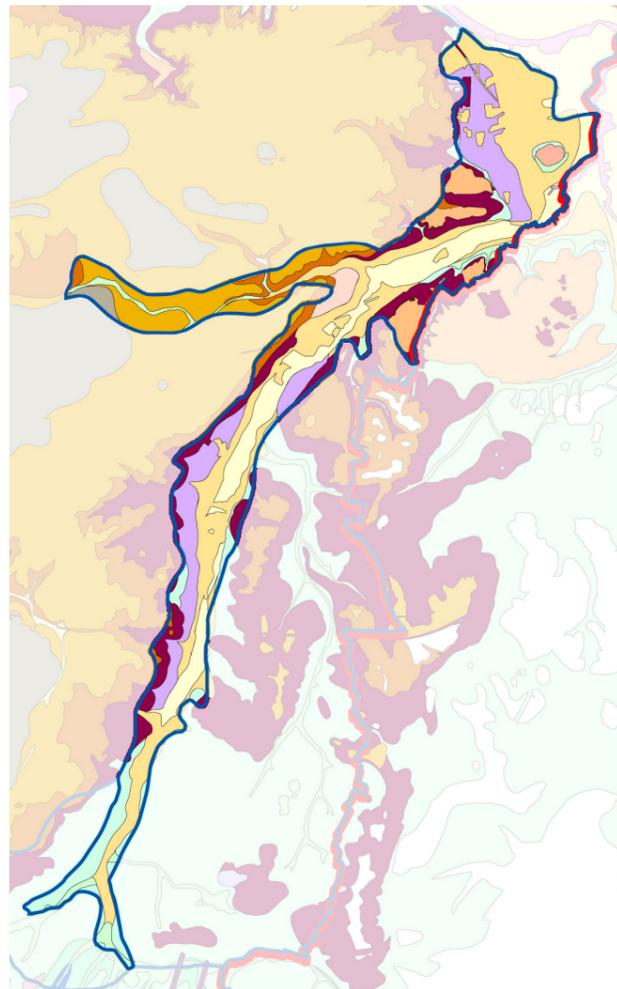
## Description

The Cray River Valley extends from the Orpington area in Bromley flowing north to Bexley where the Cray is joined by its smaller tributary, the Shuttle. The combined rivers flow down through Crayford until just east of the town where they run into the River Darent on the edge of the Crayford Marshes (NLA 14) and subsequently the Thames.

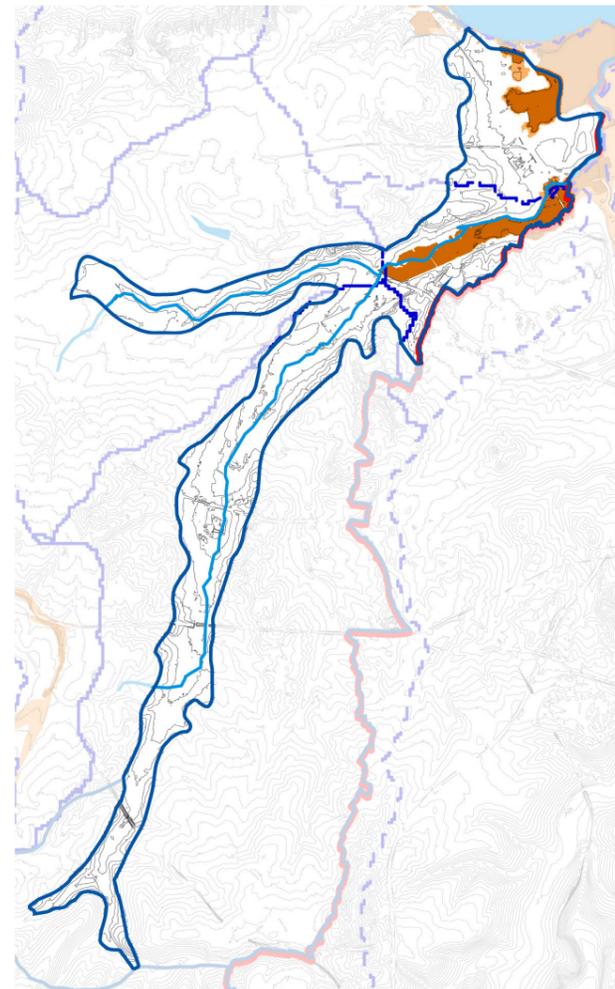
The Cray rises in Orpington, where rainwater permeating the bedrock ponds at the junction of the impermeable clay. The river valley carves through mainly Seaford and Newhaven Chalks and Thanet Sands, though numerous superficial deposits exist on top, including Crayford Silts, Taplow Gravels and more recent alluvium. The resulting chalk stream is one of the cleanest in London, and also retains one of the most natural unmodified profiles. The river supports abundant aquatic vegetation along its length. This is partly due to the range of hydrological conditions found, as a combination of both fast flowing and more sluggish stretches allows a diverse range of flora and fauna to find niche habitats.



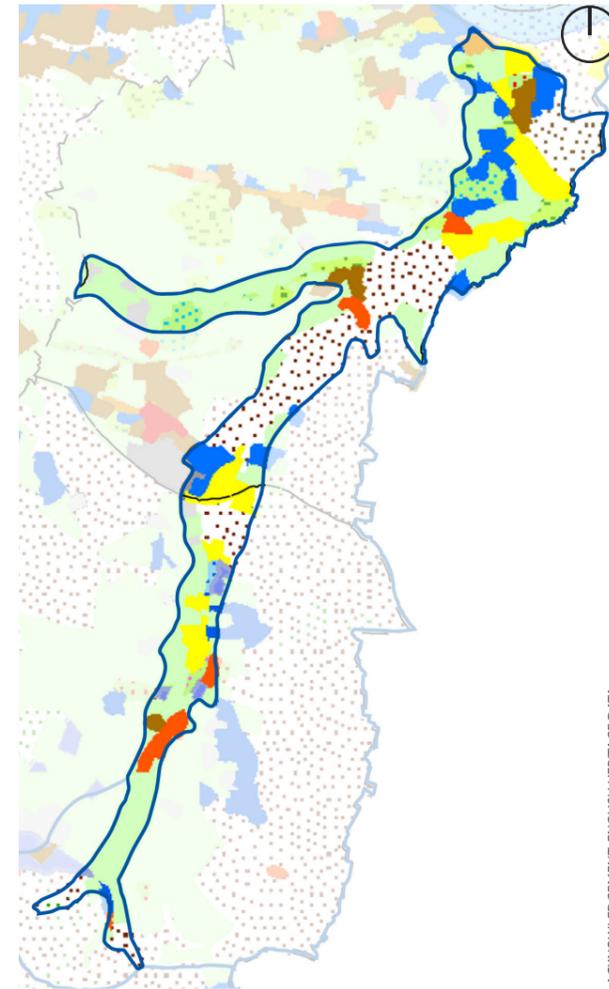
20. Cray River Valley



Geology



Rivers and Topography



Historic Development

The River Cray and its surroundings have a wealth of history. A large Iron Age settlement was located at Crayford, as was the Noviomagus, a sizeable Roman fortification. The Domesday Book of 1086AD contains references to the small riverside settlements of the Crays, Crayford and Bexley. In the 16th century, water provided by the River Cray furnished the power to drive 'a mill whereof armour is fashioned' and the clear running water of the Cray was important in the early linen bleaching industry and later for dyeing and printing. In time there were flour mills, brick-making at Crayford, tiles at Bexley, barge-building, tanneries and chemical manufacture. The arms industry was to become one of the biggest sources of employment in the area. Large estates and grand houses along the river contribute to its varied landscape setting. Some of these estates and their houses are gone (Foots Cray Place and North Cray Place) but Loring Hall, High Street House and Hall Place are among those still in existence.

Whilst the route of the Cray through the infant stages at Orpington is quite hemmed in by urban development, the valley has more space downstream where it passes the interwar suburbs of Bexley at the very edge of London, bounded by the Green Belt. The Cray passes through Foots Cray Meadows, a more open parkland area, and on through Ruxley Gravel Pits, a large body of open water with several wooded islands en route.

## Natural Signature and natural landscape features

### Natural Signature:

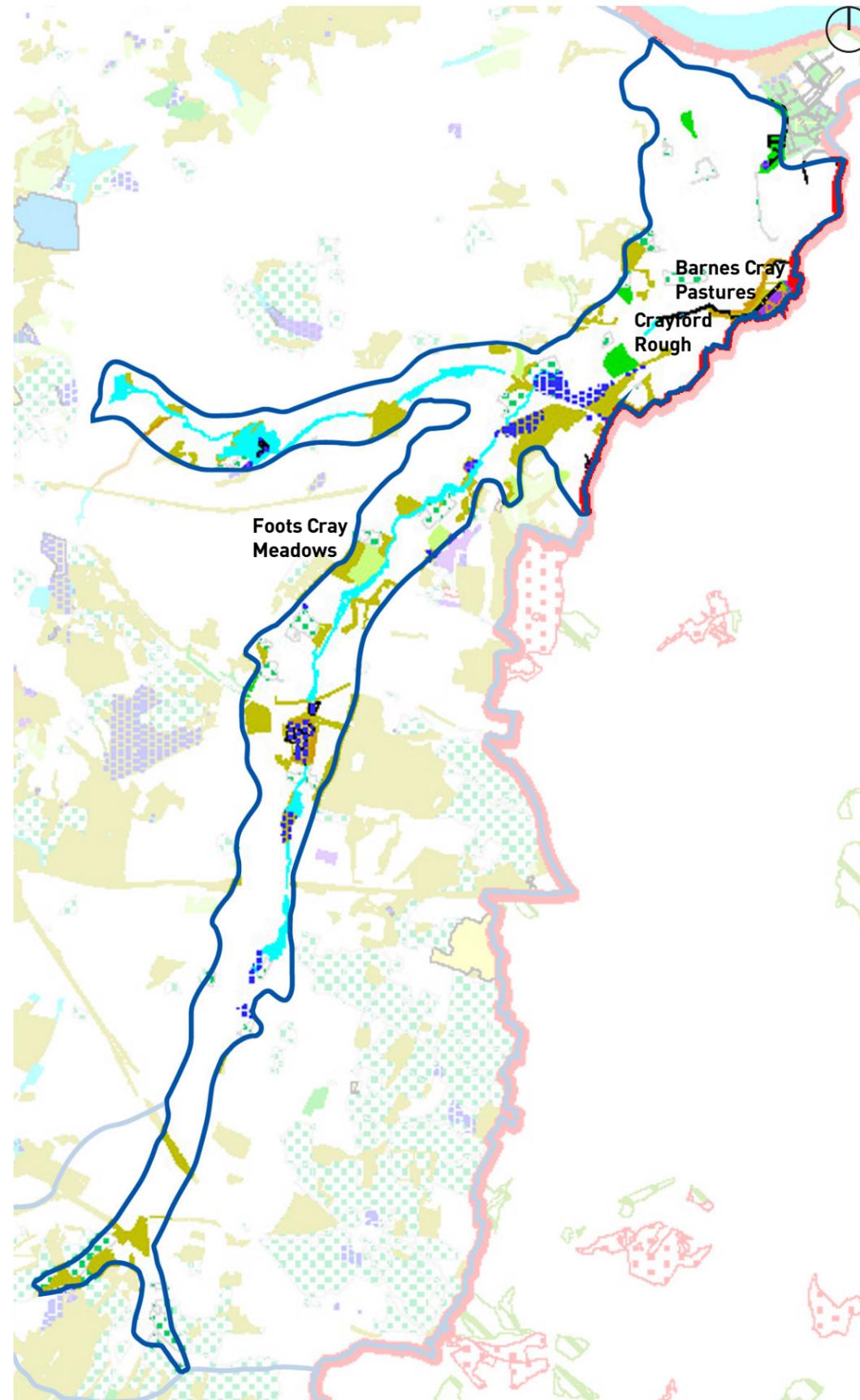
**Cray River Valley – Chalk river with a natural profile which flows through a sequence of floodplain meadows and wet woodlands.**

The combination of chalk bedrock and a relatively natural river profile gives the River Cray a distinctive identity and allows long continuous riparian habitats to flourish. These stretches of trees, rough herbage and waterside habitats provide viable ecological corridors, allowing natural habitats to penetrate into neighbouring urban areas.

The banks of the Cray and the Shuttle, along with some areas of adjacent land, contain remnants of the woodlands, wet meadows and agricultural land which formerly dominated the countryside along these river valleys. The alder woods along the banks of the Rivers Cray and Shuttle are amongst the best in London. These are remnants of the once extensive stands of alder and willow trees, which would have been established in the low lying wetland areas next to the streams.

Examples of natural landscape features within the Cray River Valley Natural Landscape Area are:

- **Foots Cray Meadows** – Foots Cray Meadows is a large area of parkland (97 hectares) and a Local Nature Reserve including the ancient North Cray Woodland and extensive wildflower meadows. Originally this land was part of the Foots Cray Palace Estate, though the house burned down in 1940 leaving the land for recreational use. Also present are large areas of neutral grassland and species-rich fen. Overall the landscape has a rolling character with some views down the valley from this raised location.
- **Crayford Rough** – A former rail yard, this site has been transformed to contain a wide variety of habitats. There is scrub and young woodland which supports a variety of flora and fauna, especially breeding birds.
- **Barnes Cray Pastures** – Floodplain meadow with new wetland and reedbed areas as part of sustainable drainage systems associated with new road infrastructure.



Natural Habitats & Landscape Key Features

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## Underlining the natural signature of the Cray River Valley

### Key influences

- Meandering river channel with riffles and pools along the profile.
- Willow and alder wet woodland.
- Floodplain meadows backed by woodland.
- Curving hedgerows defining the outer margins of the floodplain.
- Reedbeds and cressbeds alongside the river.
- Ponds and wet scrapes on floodplain meadows.
- Riverside walks and bridges.
- Remnant parkland landscapes – specimen trees and composed views.

### 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.

- Sinuous forms – expressed in pathways, belts of woodland, hedgerows meadows, swales and lines of trees.
- Chains of small ponds and wetlands, rather than one large basin, as part of flood attenuation schemes – to reflect the small scale of the river valley floodplain and maximise opportunities to create a wide range of riparian habitats.
- Lines of trees on river bends to give visual emphasis to the winding course of rivers and streams.
- Wet woodland and scrub, as well as more open wet grassland landscapes, alongside river channels, flood attenuation schemes to reflect the enclosed, relatively wooded character of the Cray Valley.
- Curving swales, with marginal reedbeds, alongside roads, paths, car parks and other infrastructure.
- Ponds, wide swales and wetland vegetation surrounded by grassland and wet woodlands at gateways and as landscape features.
- Sculptural bridges over swales and wetlands.

## Cray River Valley – Key environmental assets

Environmental asset	Relevant borough	Notes
<b>Foots Cray Meadows</b>	Bexley	Large historic parkland area with semi-natural woodlands, wet meadows, ponds with aquatics and breeding birds. Also includes areas of neutral grassland, species rich fen.
North Cray Woods	Bexley	Ancient woodland.
Ruxley Gravel Pits	Bexley	An area of relatively undisturbed open water, making it a valuable habitat for birds.
Ruxley Wood	Bexley	Sizeable ancient woodland (slightly away from Cray river itself) with mature oak and ash coppices, healthy shrub layer of elder and hawthorn and abundant original ground flora including bluebells.
Avery Hill	Greenwich	Large parkland with mature and varied tree species. In the grounds of Greenwich University Campus, within the old Mansion Site. River is a mere ditch at this location. Primarily amenity grassland and sports pitches divided by some ancient hedgerows of note.
Wayfield Link	Greenwich	A narrow grassed space between interwar development blocks. River not present, but continuous corridor connects green spaces.
Parish Wood Park	Greenwich	A small local green space with some good native woodland in the northeast and a gently sloping terrain vegetated with herb-rich grasses and scattered trees with scrub, towards the Shuttle at the southern boundary. The river has a natural course here with lots of willows and wetland species populating the steep banks.
Hollyoak Wood Park	Greenwich	The River Shuttle is contained in concrete channels through this park, with steep inaccessible sides and railings. Land is primarily open grasslands with some woodland dominated by alder.
Berwick Crescent	Greenwich	Shuttle is integrated into a roadside swale very effectively, with bankside plants including reeds and more non-native garden plants, planted by local residents.
Willersley Park	Bexley	Little of ecological value, though the Shuttle has a tamed but more natural curving meander and vegetated banks.
Sidcup Golf Course	Bexley	Good chunks of woodland and open grassed areas. Larger areas of open water.
Bexley Woods	Bexley	Ancient woodland with a steeply sloping terrain and winding meanders.
<b>Crayford Rough</b>	Bexley	Young woodland and scrub which supports a variety of flora and fauna.
<b>Barnes Cray Pastures</b>	Bexley	Floodplain meadow with new wetland and reedbed areas
Wansunt Pit	Bexley	An important geological site (on private land), a former gravel pit with exposures of the Thames Terrace sequence