

HA11: Canals

Definition

Canals are artificial waterways constructed for purposes of inland navigation. In London these include The Grand Union Canal (Main Line and Paddington Arm), the Regent's Canal, and the Lee Navigation (incorporating the Hertford Union Canal and the Limehouse Cut).

London's Canal Resource

The London canal network was cut during between 1767 and 1830 to provide a transport link both across London and between London and the industrial towns of the Midlands and the north. Although initially a success, their importance waned with the advent of railways in the latter part of the 19th Century.

Although built primarily as arteries for commerce and trade, the creation of a canal system resulted in a network of linear wetlands that provide habitat for a range of wetland species and, in recent years, an increasingly important amenity and recreational resource.

London has approximately 80km of canal corridor covering an area of about 270 ha (see Table 1 and the Map). This land area includes the canal itself (and various basins/marinas) and the adjoining towpath and adjacent bankside. The entire canal network, including the Lee Navigation, is managed by British Waterways.

Table 1: Extent of the Canal Resource by Borough

Borough	Approximate area of canal including tow path and banksides (ha)
Brent	12
Camden	7
Ealing	47
Enfield	25
Hackney	21
Hammersmith & Fulham	6
Haringey	11
Hillingdon	64
Hounslow	10
Islington	4
Kensington & Chelsea	4
Tower Hamlets	36
Waltham Forest	4
Westminster	19
Total	270

Nature Conservation Importance

Part of the nature conservation interest of the canals arose as a consequence of their decline as corridors of trade and commerce. At the peak of their industrial usage, most of the canal system was likely to have been inimical to wildlife due to the frequent passage of boats and barges and the considerable pollution of the impounded water. Declining canal use at the turn of the century and the more recent implementation of measures to combat pollution, has enabled wildlife to colonise the canal system.

The entire London canal network has been designated a Site of Metropolitan Importance for nature conservation as a result of its intrinsic value for wildlife and because it provides public access to nature; the latter is particularly important where canals pass through inner city boroughs.

Most of the canal network does not support extensive areas of vegetation, but a wide variety of wetland plants occur where conditions are suitable. These include the following: spiked water-milfoil *Myriophyllum spicatum*, rigid hornwort *Ceratophyllum demersum*, hemlock water dropwort *Oenanthe crocata*, yellow iris *Iris pseudacorus* and, in the more rural stretches of the system, arrowhead *Sagittaria sagittifolia*, yellow water-lily *Nuphar lutea* and stands of common reed *Phragmites australis*.

The canals also support a wide range of wetland invertebrates. Where there are larger stands of marginal vegetation along canals in outer London boroughs, the emerald damselfly may be present. Less demanding species of dragonfly, such as the emperor and blue-tailed damselfly, occur throughout the canal system.

Sand martins have taken to nesting in old pipes alongside canals and kingfishers are frequently present, although less likely to find suitable nest-sites. Grey herons are virtually ubiquitous.

A diverse range of fish is present in the canals, some being populations of fish which have entered the canal network from the main rivers which supply the system, others being deliberate introductions by anglers. Roach, bream, gudgeon, carp and tench are typical species. Eels are also present.

Canalside buildings and infrastructure (e.g. buildings and tunnels) may provide roost sites for bats. Water voles are still present in a few locations.

In addition to the wetland communities present in and alongside the canal, stretches of grassland, scrub and woodland can be found adjacent to the towpath. This is more extensive where canals flow through the open spaces and countryside of the Colne Valley and the Lea Valley Park, although even in the inner city the canals often adjoin parks and other areas of green space, for example Camley Street Natural Park behind King's Cross station.

Some canals and canal stretches of nature conservation value in Greater London

Hertford Union Canal and Limehouse Cut, LB Tower Hamlets
Lee Navigation, LB Hackney
Grand Union Canal, LB Hillingdon
Grand Union Canal, LB Ealing
Regent's Canal, LB Camden

Threats and Opportunities

Threats

The London canal network is currently experiencing a revival, partly as a result of a renewed interest in water-borne transport, but also as a focus for regeneration (primarily in the urban area) and as an increasingly valued recreation resource. Redevelopment of canalsides poses an obvious threat if existing habitat is lost to built development or new development results in the replacement of naturally occurring vegetation with unsympathetic landscaping schemes. Increased recreational use of the canals and their environs could result in the threat of increased disturbance to canalside wildlife.

The need to maintain the waterway for boat traffic may also increase the threat to wildlife habitat as existing desilting and vegetation clearance regimes may need to be augmented. Repair and repointing of canal walls and other infrastructure prevents plants from gaining a foothold and may reduce the availability of nest sites for birds and roost sites for bats. As with any wetland habitat, pollution of the waterway can result in harm to wildlife.

Opportunities

The London's Waterway Partnership, a consortium of businesses, local authorities, statutory agencies and voluntary sector organisations, has developed a programme to promote and enhance the London canal network. Although its focus is primarily on the regeneration opportunities provided by London's Waterways, environmental protection is one theme of the initiative.

Habitat creation and habitat enhancement schemes have already been implemented throughout the London canal network but many further opportunities exist or may arise as a result of canalside repair, maintenance or redevelopment. A number of publications (e.g. *Partnership in Planning: Riverbank design guidance for the Tidal Thames*. Environment Agency. Undated) provide advice on the opportunities for enhancement of riverside walls which could be adapted for canalside enhancement.

The canals link a large number of open spaces and provide a corridor from the Green Belt in to the urban centre of London. Establishing a footpath network along the towpath has increased the opportunity for people's use and enjoyment of this corridor. It could be further enhanced as a wildlife corridor by sympathetic enhancement of the canal corridor and adjoining open spaces.

The accessibility and extensive recreational use of the London waterways provides valuable opportunities for raising awareness of biodiversity issues amongst audiences such as anglers and boaters, who need to be brought into Partnerships to ensure biodiversity conservation is integral to the management of the waterways.

Data Sources for Canal Audit

British Waterways (undated) *Explore London's Canals*. Information booklet.

Farino, T. & Game, M. (1988) *Nature Conservation in Hillingdon*. Ecology Handbook 7. London Ecology Unit

Game, M. & Whitfield, J. (1996) *Nature Conservation in Tower Hamlets*. Ecology Handbook 27. London Ecology Unit

LEU Sites of Metropolitan Importance base maps. Unpublished reference material.

London's Waterways – a catalyst for regeneration. Single Regeneration Budget Delivery Plan, Year 2: 1998 –1999. London's Waterway Partnership

Rationale and limitations of approach

Data on the London canals were taken largely from material held by the London Ecology Unit. As the entire canal network is identified as a Site of Metropolitan Importance, the area of canal within each borough was calculated by measuring the length of the canal in each borough and multiplying by an average width. This provides a good approximation to the extent of the canal corridor but is not precise and includes areas of hard surface that may be of limited nature conservation value.