County map showing location of LANDSCAPE CHARACTER AREA

LOCATION

River valley on eastern edge of county, stretching from M25/Holdbrook in the south to King's Weir on southern edge of Nazeing Marsh.

LANDSCAPE CHARACTER

This is a wetland landscape of unified character, with nature conservation and recreation dominant. The Lee Valley Regional Park designation covers this whole area. The western edge is very crisp, the urban settlement held in by the railway, while the eastern edge is softer and more rural, with extensive woodland west of the B194 and mixed farmland and nursery production further north. Within the Park there are a range of sub-character areas, including savannah, orchid meadow, birchwood and canal towpath.

KEY CHARACTERISTICS

- linear area of wetland: extensive waterbodies with wetland vegetation
- low-lying flat valley floor
- man-made
- strong urban edge to west with rural eastern edge
- mosaic of habitats with lots of fauna: swans, geese and ducks
- Lea Navigation: raised canal with locks and towpath as a linear feature
- Small River Lea is insignificant within the landscape
- regenerating wetland scrub and woodland create visual boundaries
- very limited views within or of area from outside

DISTINCTIVE FEATURES

- county boundary lies within character area
- extensive active and disused mineral workings
- pylons along eastern edge
- locks and bridges of Lee Navigation

• Lea Navigation at Cheshunt (P. Shears)

PHYSICAL INFLUENCES

Geology and soils. Gleyed (poorly draining) often calcareous soils over alluvial drift (Fladbury 1 series).
Topography. Flat
Degree of slope. 1 in 1125
Altitude range. 19m to 23m
Hydrology. Although it originally defined the river valley landform, the river Lea/Lee is no longer the major feature of the local landscape, which is shaped more by the Lee Navigation and dominated by the extensive waterbodies that are the after-effects of mineral extraction. The Navigation canal is uniform and engineered, but is lined with large mature trees in this area. The Old River Lea diverges from the navigation at King's Weir. This section carries surplus flows to the flood relief channel at Fishers Green. It then diverges from the Horsemill Stream at Fishers Green and splits to form the Cornmill Stream. Both channels border valuable SSSIs but low flows have led to their decline as fisheries. The Small River Lee is not large enough to provide recreational angling but is a valuable spawning /nursery area for fish. The Old River Lea is one of the most diverse habitats found within the North London Local Environment Agency Plan (LEAP). Holyfield Lake at Fishers Green is a large waterbody (c. 140 acres) known for its specimen fish.
Land cover and land use. The dominant land cover in this area is open water with wetland vegetation. The primary land use is nature conservation and informal recreation - walking, fishing, sailing, birdwatching - using the extensive path and car park network. Cheshunt Marsh is an open area of rough and mown grass, resembling savannah, without trees and with the Small Lea meandering through as a polluted brook in a deep channel. Hooks Marsh is a Country Park, less formally managed, with mature trees, marginal vegetation and kingfishers. The Park becomes slightly wilder to the north, with fewer mown grass areas and more mature trees. Some of the waterbodies are very open, others sprinkled with many tiny islands bearing willow and scrub. At Fishers Green there is a series of large open lakes.
Vegetation and wildlife. The present habitats in this area have mainly derived by natural colonisation from remnants of the natural floodplain grasslands and wetlands of the original landscape. There are also some important artificial habitats, derived from power-station fly-ash residues, which are now nationally important for marsh orchids.

- Turnford and Cheshunt Pits form part of the internationally important Lee Valley complex of wetland sites, which is a proposed Special Protection Area (SPA) under the EU Birds Directive, proposed Ramsar site and SSSI. The pits were created between the 1930s and the 1970s and are of national importance for wintering gadwall and shoveler, and of regional importance for wintering coot. The aquatic invertebrate fauna and wetland flora are also rich, with some nationally rare species. Associated areas of marsh, grassland, ruderal herbs, scrub, woodland, part of the Small River Lee and Hall Marsh Scrape are all included within the SSSI designation.
- The tree cover in this area is very extensive and diverse, part planted and part natural regeneration, consisting of water-related species, such as willow, poplar and alder and reclamation species such as silver birch and aspen. Other species are ash, oak, hazel, field maple, whitebeam, rowan, sycamore, downy birch, silver and Lombardy poplars. Scrub regeneration includes hazel, elder, hawthorn and sallow. Hornbeam, oak and hazel are remnants of a once far more extensive woodland cover. The eastern edge of the area supports grazing pasture with cattle and around Turnford Pit North there are a number of small relic areas of unimproved calcareous grassland with cowslips.

HISTORIC AND CULTURAL INFLUENCES

The Lea valley is a very disturbed area that has been transformed more than once. There are only relics of the former grazing meadows, on the eastern edge, beyond the county boundary, but the surviving alluvial deposits have a high archaeological and paleo-ecological potential. During part of the 19th century the Lea valley was one of the largest centres of the malting and brewing industry in western Europe. Twentieth-century mineral extraction on a huge scale left extensive waterbodies in its wake. Since 1969 the potential of this area has been seized and acted upon, following recognition of its use as a popular venue for day excursions and holidays.
Field pattern. No original field pattern remains; the landscape scale has been considerably enlarged.
Transport pattern. There are no north-south roads within the river valley, but a railway and a canal - the Lea Navigation - run parallel throughout. There are no east-west crossings in this area, other than a footpath between Cheshunt and Holyfield (Fishers Green).
Settlements and built form. At the southern end Holdbrook now links Waltham Cross to Waltham Abbey and screens the valley landform and vegetation. There are no other settlements within the valley in this area, but ample evidence of previous uses in the rather utilitarian bridges over the various watercourses and the tracks, both relics of mineral extraction. There are also several locks along the Navigation and an electricity station at Holyfield Marsh, upon which the pylons along the eastern edge of the valley converge.

OTHER SOURCES OF AREA-SPECIFIC INFORMATION

English Heritage *List of Scheduled Ancient Monuments.*
Lee Valley Management Plan.
Lee Valley Regional Park *Park Plan Part Two.*
Environment Agency *LEAP for North London.*
English Nature SSSI notification.

VISUAL AND SENSORY PERCEPTION

From outside this area is only locally visible, due to the density of vegetation and the presence of the railway along the urban edge to the west. Although there are occasional long views over waterbodies within the area, in most instances they are limited by woodland and scrub. It is therefore a very contained area, of mixed scale. It is coherent, due to the unity of land use, but noisy with road and rail traffic at the southern end. Further north it becomes more tranquil. Within this area there is an impressive range of different habitats, demonstrating the recreational and ecological potential of wetland restoration. Kingfishers, orchids and the scent of crushed watermint can be local experiences.

Rarity and distinctiveness. This area demonstrates the art of the possible in terms of wetland restoration to valuable ecological habitats and recreational use for a large urban population. It is recognised as being internationally important ecologically and its designation as a Regional Park demonstrates its amenity importance.

VISUAL IMPACT

The current situation must mark one of the most positive aspects of change ever to have influenced this area. Within the Park there are limited impacts from re-use of bridges and tracks installed during the mineral extraction phase, but most other impacts are screened by the extensive vegetation. Even this, however, cannot screen the pylons.

ACCESSIBILITY

Noted recreational land uses: cycling/fishing/walking/canal boats/bird watching/sailing/BBQ/car park. There are clear waymarked routes throughout the park, wide and well surfaced, and an excellent network of car parks. The canal and towpath provide a linear route through the area. Poor disabled access to water in some areas, but generally good.

COMMUNITY VIEWS

Surprisingly, this area is not greatly valued by Hertfordshire residents for its distinctiveness (D).

LANDSCAPE RELATED DESIGNATIONS

SSSI, Ramsar site and part of pSPA;
High Biodiversity Area (HBA) for its wetlands.
Regional Park.

CONDITION

Land cover change:	**widespread**
Age structure of tree cover:	**young**
Extent of semi-natural habitat survival:	**widespread**
Management of semi-natural habitat:	**not obvious**
Survival of cultural pattern:	**extinct**
Impact of built development:	**moderate**
Impact of land-use change:	**high**

ROBUSTNESS

Impact of landform:	**prominent**
Impact of land cover:	**prominent**
Impact of historic pattern:	**relic**
Visibility from outside:	**concealed**
Sense of enclosure:	**contained**
Visual unity:	**unified**
Distinctiveness/rarity:	**unique**

CONDITION	WEAK	MODERATE	STRONG
GOOD	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
MODERATE	Improve and reinforce	Improve and conserve	**Conserve and restore**
POOR	Reconstruct	Improve and restore	Restore condition to maintain character

STRENGTH OF CHARACTER

STRATEGY AND GUIDELINES FOR MANAGING CHANGE: CONSERVE AND RESTORE

- in most landscape character areas there is a presumption that lost landscape features should be restored where possible, where this would contribute to its distinctiveness. In this area the original landscape has been completely obliterated, but a new landscape has been created which merits conservation and enhancement
- encourage the creation of a further mosaic of habitats and recreational opportunities, building on the existing framework but not repeating it
- encourage biodiversity initiatives, such as increasing marginal vegetation where possible
- take advantage of mineral restoration opportunities to expand the Country Park in this area
- expand the high quality landscape and recreational facilities throughout this area, with a focus on visitor management, the extension of visitor facilities and the development of further attractions related to the area's increasing biodiversity
- encourage further habitat creation in the northern part of the area to meet the BAP's grassland targets and increase biodiversity
- manage and improve all river habitats
- improve access from railway stations and over railway tracks
- build on the existing walking/cycling network to create linear and circular routes within the country park
- consider zoning the area to protect wildlife, segregate active and passive activities and ensure both the protection of local habitats and the provision of a full range of active outdoor pursuits, with a particular focus of those that are water-related

• Orchid Meadow near River Lea (J. Crew)