
Description

Numerous areas of wetland and open water known as 'Flashes' occupy a central corridor of land associated with low-lying areas within the 'Makerfield Basin'. They tend to be located to either side of the Leeds and Liverpool Canal and Hey Brook, running in a north/west south/east direction and only interrupted by dense urban areas in the centre of Wigan. The larger water bodies include the Wigan Flashes and Pennington Flash, where subsidence lakes have formed, inundating former agricultural land. Most of the flashes and wetland areas have been created by mining subsidence and have now become naturalised by marginal and aquatic plants forming important wildlife habitats.

The Leeds and Liverpool Canal together with various roads and railway lines traverse the area on embankments, often formed from colliery spoil and colonised by pioneer species such as birch and goat willow. These provide good views of the open water.

Although historically a degraded landscape, adversely affected by mining, these areas have now recovered through both plant re-colonisation and restoration to form an attractive and important habitat which traverses the Greenheart Regional Park at the core of the Borough. Many of the wetlands now appear to be completely natural in origin.



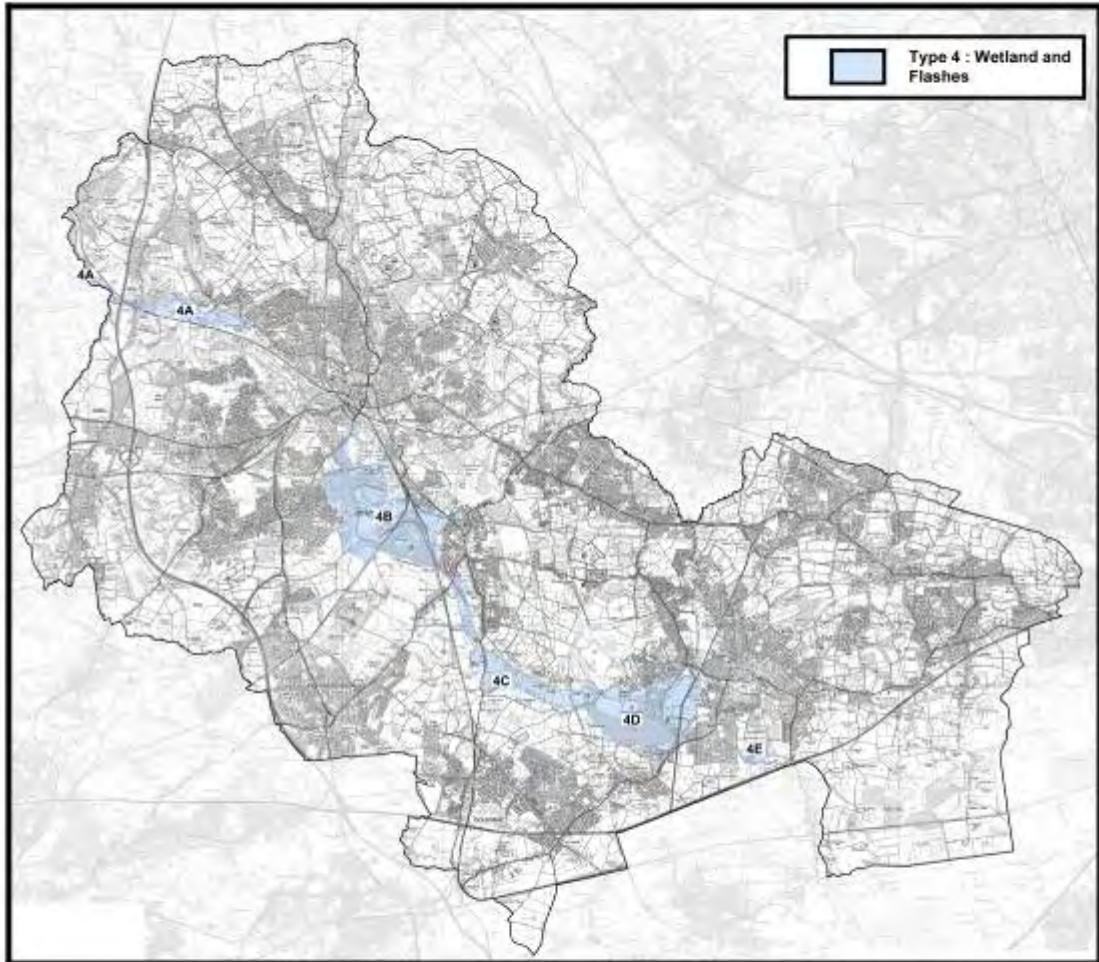
Photo 130 Pearson's Flash.

Views are essentially linear along the corridor of low-lying land. In places the visual corridor is reduced due to the proximity of raised embankments, but in other locations, such as along the Leeds and Liverpool Canal towpath, views are from an elevated position on an embankment.

The Wigan wetlands form an important inter-linked wildlife corridor, together with recreational resources from Westwood Flash in the north, along the Hey Brook Corridor and Abram Flashes towards Pennington Flash. Wigan Flashes have been designated as a local nature reserve and contain a major Site of Special Scientific Interest at Ince Moss, together with 7 Sites of Biological Importance. In addition, the Abram Flashes are also designated as SSSIs and Pennington Flash an SBI and Country Park. Some formal recreational activities take place on Scotman's and Pennington Flashes, including sailing and canoeing, and others such as fishing, cycling, walking and nature study. Together these areas form part of the Wigan Greenheart Regional Park, bringing together sites across Wigan's core countryside to provide a diverse range of recreational facilities and wildlife habitats within a countryside setting.

Key Characteristics:

- Low lying, flat, wet meadow, marsh and open water
- Landscape created from mining subsidence and inundation
- Landscapes of natural re-colonisation and/or restoration
- Occupying linear areas mainly associated with the Leeds and Liverpool Canal and Hey Brook Corridor
- Nationally and regionally important both for wildlife and recreation
- Meadowland and extensive reed beds associated with Hey Brook
- Wooded areas restricted and confined to naturally regenerated 'carr' woodland
- Views tend to be restricted and internal to the wetland corridors
- Sharply defined boundaries to adjoining areas
- Raised embankments to the Leeds and Liverpool Canal and to road and rail crossings
- Lack of structural landscape 'feeds' into the area
- Connections with industrial heritage



Cultural History

The low lying area known as the Makerfield Basin is drained to the north-west by the River Douglas and to the south-east by Hey Brook. It has historically been associated with mossland and wet meadow land with the Ince Mosses forming extensive areas of peat bog before the end of the C19th.

Hey Brook originally flowed through the low-lying land and was liable to flooding. Extensive river meadows ran along either side of the stream, together with a chain of moated sites, including Abram Hall, Lightshaw Hall (both still standing), Mossley Hall, Urmstons in the Meadows and Hopecarr Hall.

The construction of the Leeds and Liverpool Canal and its linkage to the Bridgewater Canal in 1820 transformed the area. This enabled coal to be exported from the area on a large scale to the major industrial cities adjacent and collieries sprang up all the way along its course through the Wigan coalfield. This resulted in massive areas of underground colliery workings and subsequent large-scale subsidence of the surrounding land as mines began to collapse when coal had been extracted from the seams below.



Photo. 98 Gerrard's Bridge.

The flashes were created as the collapsed ground levels were inundated by Hey Brook and by the residual water in Ince Mosses. The majority of the flashes seem to have appeared during the C20th.

One of the consequences of the subsidence was that first the Leeds and Liverpool Canal and then the railway lines through the area also began to subside with potentially disastrous consequences. To counter this, embankments were raised using colliery spoil and over time these became substantial landscape features.

The flashes were also useful dumping grounds for the colliery spoil extracted from beneath them as well as other materials, such as ash from the Westwood Power Station. In the case of Ince Mosses this has produced a range of differing habitats. Across the area habitats include open water, reedbed, fen, rough grassland, wet meadow and carr woodland. These areas are particularly important for a diverse range of flora, invertebrates, bats and bird species – notably water fowl and the nationally rare Bittern.

Key cultural elements in the landscape:

- Construction of the Leeds and Liverpool Canal
- Construction of various railway routes, some mineral and some main line
- Extremely valuable and often rare habitats

AREA 4.A APPLEY BRIDGE TO MARTLAND MILL

Description

Area A comprises the Douglas Valley floodplain between Appley Bridge and Martland Mill containing the meandering course of the River Douglas and closely associated Leeds and Liverpool Canal. The floodplain contains a number of ponds and marshy wetlands within areas of meadow pastureland with few field boundaries. An area of deciduous woodland known as Green Alley Wood is located in the floodplain to the west, together with the adjoining woodlands of Otters Croft and Greaves Wood on the valley sides to the east.

The area is narrow and linear in nature with limited access, except along the tow path of the Leeds and Liverpool Canal. The M6 viaduct is a major feature in the landscape, cutting the area in two.



Photo. 39 Leeds and Liverpool Canal towards Gathurst Bridge and M6 Viaduct.

Also closely associated with the valley floor is the Wigan/Southport railway line which, together with the Canal, creates a series of industrial heritage features such as sandstone bridges and spillways. This character is continued by the attractive village of Crooke at the confluence of the River Douglas with Mill Brook. The village was built during the hey day of the canal and railway, with houses uniformly built in sandstone with slate roofs.

Views are linear along the Canal and restricted by its meandering turns, which tend to follow the course of the river.

Footpaths in the area are limited by the barriers of the railway, river and canal, although the route along the valley floor is well-served by the canal towpath

Key Characteristics:

- River Douglas and Leeds and Liverpool Canal
- M6 viaduct
- Meadow pasture
- Wetlands and ponds
- Wooded backdrop
- Narrow linear area
- Wigan/Southport railway line
- Industrial heritage
- Canal towpath/footpath

Cultural History

In 1742 the River Douglas was canalised from its junction with the Mersey up to Mirey Lane End in Wigan, following an Act of Parliament of 1720. The canalised river, known as the Douglas Navigation, had some 13 locks along its length. The river was used to transport coal from Wigan down to the Mersey and from there upriver to Manchester or downriver to Liverpool.

The Leeds and Liverpool Canal reached Wigan in 1781, replacing the Douglas Navigation, parts of which, including old locks, can be seen between Parbold and Gathurst. The Canal was built at a higher level than the valley floor on the eastern side of the valley and there is a spillway down to the river at a point near Otters Croft Wood.

The Wigan/Southport railway crosses the River Douglas on a viaduct near Gathurst Station almost directly below the far more spectacular and far higher, M6 motorway viaduct at Gathurst, which was commenced in 1959

The B5206 (Gathurst Road) crosses the valley near Gathurst station via old and attractive bridges over the canal and river.

Key cultural elements in the landscape:

- River meadows
- The River Douglas and the remains of the Douglas Navigation
- The Leeds and Liverpool Canal
- The Wigan/Southport railway line
- Bridge crossings

Landscape Sensitivity and Change

The Douglas valley narrows at Gathurst to form a pinch point, constricting the communication links within a narrow band. During the 19th century this area would have been extremely busy with the transportation of materials along the canal and railway and with the extraction works taking place in and behind Greaves Wood to the valley side. Similarly, Crooke would have been a busy and thriving industrial village.

The landscape character of the area today has changed dramatically. Leisure boats are found moored at Crooke and at the Appley Bridge Marina, whilst the canal and river sides are well-vegetated and treed, creating a much more relaxed rural character. The village of Crooke has also become a more attractive settlement retaining direct links to the area's heritage.

Less positive changes in the landscape, however, are found with the impact of the M6 viaduct which towers above the valley floor at Gathurst and with the massive Heinz factory buildings directly opposite Martland Mill.

The land between the canal and river tends to be narrow and unproductive. This is largely unmanaged, resulting in the mass spread of Himalayan Balsam, creating an unkempt character. Prior to development, these areas would probably have been prone to flooding but would have been used as water meadows for grazing.

Key elements of landscape sensitivity:

- Unkempt areas between river and canal susceptible to the spread of invasive weed species
- Sensitive to visual and noise impact from the M6 viaduct
- Subject to adverse visual impact of Heinz Factory buildings
- Sensitive to potential water pollution

Key elements of landscape change:

- Change from busy industrial uses to quieter recreational uses
- Construction of canal and railway
- Later construction of M6 viaduct and Heinz factory
- Enhanced status perception of Crooke village
- Loss of wet meadow land for grazing
- Spread of Himalayan Balsam

Recommended Management and Landscape Objectives

Open space and linear strips of agricultural land re-emerges from the urban areas of Wigan downstream of Martland Mill forming a narrow flood plain corridor extending to the Appley Bridge mooring marina on the Leeds and Liverpool Canal to the west. The area still maintains a strong link with its industrial past and is dominated by the presence of the canal, river and railway all running in close association to each other. The canal appears to be currently providing a major lead in the economy of the immediate area through leisure and recreation and it is recommended that canal based activity should form the areas main focus.

The village of Crooke is visually concealed in the valley bottom set in a woodland setting. The village is closely associated with the canal and railway adjacent and possesses a uniformity of historic character often lost elsewhere due to random development and mixed architectural styles. Crooke village could be considered as a centre for canal based recreation and as a valuable architectural asset to the area. Consideration should also be given to protecting these qualities by affording the village the status of a conservation area.

The valley bottom between the river, canal and railway tends to be largely neglected today with heavy infestations of Himalayan Balsam requiring urgent treatment to avoid its spread downstream. These areas form part of the rivers floodplain and should be reinstated where possible as flood meadows. Historic canal architecture in the form of spillways, locks and bridges are clearly in need of maintenance. Problems in the area particularly from fly tipping and potential water pollution should be carefully monitored with contingency clean up procedures considered.

Management of the Landscape:

- Encourage canal based activities
- Consider the merits of Crooke village as a conservation area
- Control and eradicate Himalayan Balsam from the valley floor
- Encourage the restoration of grazed flood meadows
- Encourage regular maintenance to historic canal and railway architecture
- Encourage the removal of eyesores such as fly-tipped material, particularly when these are easily viewed from footpath routes
- Monitor potential water pollution. Urgently implement clean up procedures if necessary

AREA 4.B WIGAN FLASHES

Description

The Wigan Flashes extend over approximately 260 hectares of low-lying ground occupying the northern reaches of the Hey Brook Corridor at the heart of the Makerfield Basin and bounded by urban, industrial, commercial and residential development to the west, north and northeast – although open to farmland to the southeast. In many areas there is margin of degraded land, particularly to the north. The flashes comprise a series of lakes, wetland areas and marshes on degraded land resulting from previous mining subsidence and affected by tipping of various waste materials. The area has been subject to reclamation since the early 1970’s and now provides a maturing naturalistic wetland landscape, which is of national and regional importance for its wildlife and, in particular, its birdlife.

The area has been colonised by the natural regeneration of reed beds, fen, rough grassland and carr woodland and are now a haven for a wide range of wildlife, birds, insects and flora. Wigan Flashes also contain remnant areas of the former mossland known as Ince Mosses. The area has been designated as a local nature reserve. The Wigan Flashes also contains a major Site of Special Scientific Interest and 7 Sites of Biological Importance. This is a core area in Greenheart, Wigan’s Regional Park, and the Red Rose Forest.



Photo. 113 Pearson’s Flash.

The Flashes include Westwood Flash, Pearson’s Flash, Turner’s Flash, Scotsman’s Flash, Ochre Flash, Horrocks Flash and Bryn Marsh as distinct but closely associated areas of open water and wetland. The Leeds and Liverpool Canal passes through the area between the Flashes, providing a footpath link from northwest to southeast. The Preston to Liverpool railway line crosses the area between Turner’s Flash and Bryn Marsh and Horrocks Flash. The main north-south West Coast Line crosses the area at Bamfurlong junction and forms the effective northwest boundary of the area.

Both the railway and canal are distinctively elevated on embankments, which form limits to many of the views within the area.

The area is extremely valuable in landscape terms, providing a substantial interconnected area of popular open space on the fringes of the urban area and very close to the centre of Wigan.

The footpath system through the Flashes is limited, minimising disturbance to habitat and wildlife, although footpaths occur around each of the wetland areas with a surfaced canal promenade on the towpath of the Leeds and Liverpool Canal.

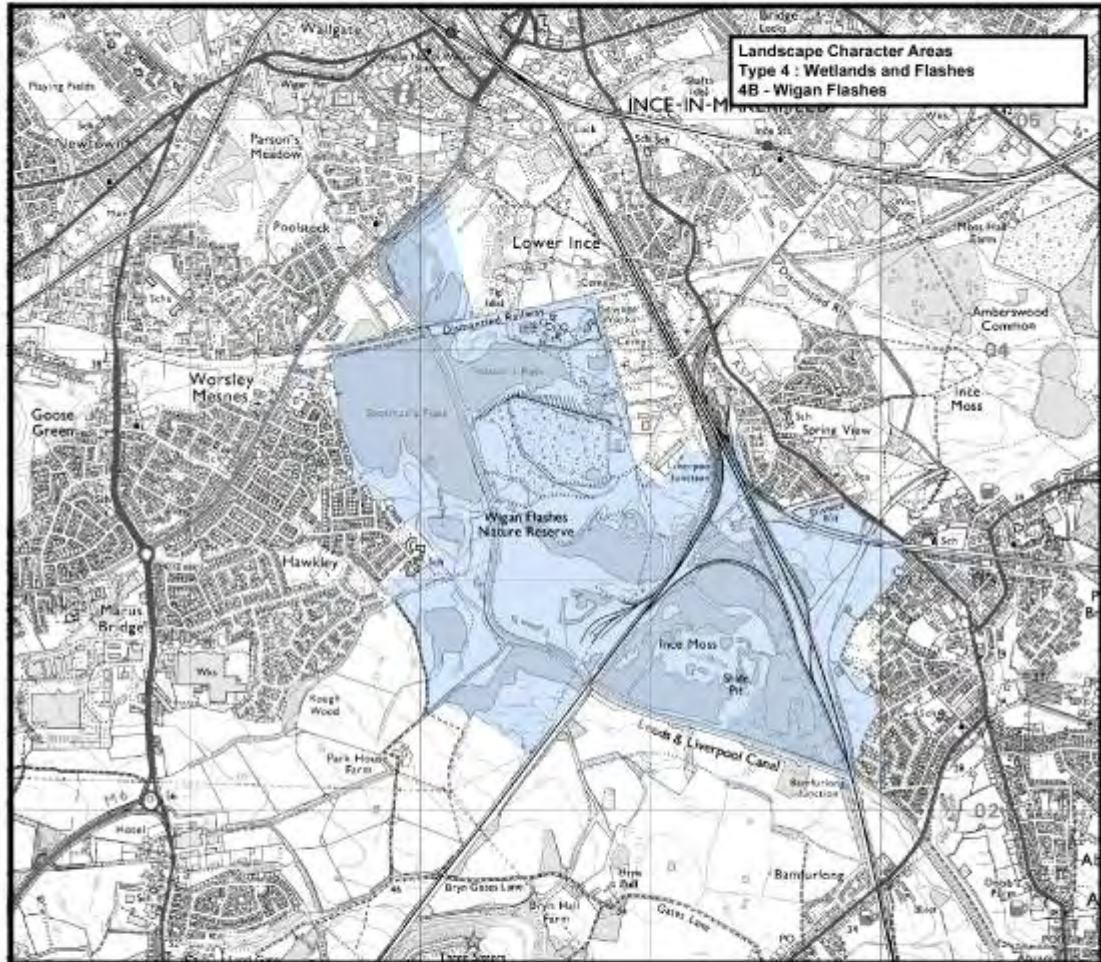


Photo. 130 Leeds and Liverpool Canal and Pearson’s Flash.

Views into and within the area are limited by the railway embankment to the east, the embankments of the Leeds and Liverpool Canal and by urban development and spoil heaps.

Key Characteristics:

- Areas of open water; marsh and mossland
- Low-lying and flat landscape
- Crossed by the Leeds and Liverpool Canal and various railway embankments
- Mainly surrounded by urban development
- Importance for habitat and wildlife
- Views mainly limited to within the area.



Cultural History

A branch of the Leeds and Liverpool Canal runs through the area, constructed to link the main canal to the Bridgewater Canal. It was completed in 1821 and was principally used to carry coal from the numerous collieries which sprang up along its length. The subsidence which created the flashes also adversely affected the canal, with the result that the embankments were built up with colliery spoil to maintain original levels.

The railway line embankments were similarly built up over time, but the main West Coast Line was not as severely affected as other local lines.

Most of the area has been recognised for its wildlife and habitat importance and has been designated as a Local Nature Reserve. In addition, the Bryn Marsh and Ince Moss areas have been designated as a Site of Special Scientific Interest (SSSI) and there are also 7 Sites of Biological Importance (SBIs). Parts of Ince Moss were used for the tipping and later extraction of boiler ash, which has created more alkaline soils locally. Yellow-wort (*Blackstonia perfoliata*), marsh helleborine (*Epipactis palustris*) and the marsh orchids (*Dactylorhiza praetermissa* and *Dactylorhiza incarnata*) are locally rare species occurring on the boiler ash substrates.

The Flashes also support large and occasionally locally rare populations of various insect species, including dragonflies, hawkers and darters, as well as large populations of butterflies and moths.

The wetlands also attract a wide range of waterfowl and other wetland species such as little grebe, great crested grebe, mute swan, tufted duck, snipe, redshank and reed warblers. The nationally rare bittern is also recorded during winter months.

Key cultural elements in the landscape:

- Relict areas of the once extensive Ince Mosses
- Exceptionally rich wildlife value
- The Leeds and Liverpool Canal
- The main West Coast railway line

Landscape Sensitivity and Change

Wigan Flashes have changed dramatically following their subsidence and inundation with water. The previous industrial land and wet meadows have been lost and the wetland areas have now been naturally colonised by marginal plants and surrounding carr woodland. This, in turn, has provided a habitat which contains a degree of screening and security for waterfowl. Surrounding land originally created an industrial scene of waste colliery spoil and derelict areas. These have now been greatly improved by both reclamation and re-colonisation. The landscape today almost suggests that the wetlands are of natural origin and provide a strikingly attractive core to the urban fringes of Wigan. Their primary importance however is their habitat for fauna and flora and this will be highly sensitive to such influences as water pollution, surrounding development and general disturbance.

Key elements of landscape sensitivity:

- Disturbance
- Surrounding development
- Potential water pollution

Key elements of landscape change:

- Change from a derelict landscape to one of great 'natural' beauty
- Value for wildlife and limited recreation

Recommended Management and Landscape Objectives

The importance of the Wigan Flashes has long been recognised for their habitat, wildlife and recreational value. They are currently managed to conserve and enhance what have now become 'naturalised landscapes' whilst recognising the recreational pressures within what is essentially an urban/urban fringe environment. They are managed as a partnership between Wigan Council and the Wildlife Trust for Lancashire, Manchester and North Merseyside with most of the area now designated as a Local Nature Reserve. A Project Officer has been engaged to undertake improvement work and to develop links with the local community.

One of the long-term problems with the western flashes is their relationship with pre-existing residential and industrial areas. The flashes did not exist when the housing was built with the result that few, if any, of the houses faced out over the water areas. The flashes were clearly thought of as product of coal mining dereliction and treated accordingly. This attitude is changing, but views over the flashes could be opened up in several locations from housing and especially from roads, such as the B5238. Some new housing has been orientated to take advantage of the long views over the flashes, but this should be carefully controlled appropriate to size and scale.

The Wigan Flashes are sensitive to redevelopment and land reclamation particularly to the north east in the Lower Ince area. New development in these areas must be conditional on mitigational landscaping involving native planting, buffer and habitat enhancement treatment to the wetland margins.

Recommendations under Area 1C propose a footpath link through the farmland from the Three Sisters Recreation Area to the Leeds and Liverpool Canal towpath.

Management of the Landscape:

- Continue partnership land management involving habitat conservation and enhancement linked with recreational use where appropriate.
- Strictly control the colonisation alien species into the area, in particular Himalayan Balsam and Japanese Knotweed. These should be eradicated as a high priority as both species tend to spread rapidly through aquatic habitats and over derelict land.
- Encourage the removal of eyesores particularly when these are easily viewed from footpath routes.

- Control new development considering native planting, buffer and habitat enhancement treatment to the wetland margins
- Consider a new footpath link from the Three Sisters Recreation Area to the Leeds and Liverpool Canal towpath.

AREA 4.C HEY BROOK CORRIDOR. ABRAM FLASHES TO PENNINGTON FLASH

Description

This is a sleeve-shaped corridor of land which follows the course of Hey Brook and the Leeds and Liverpool Canal. From its narrowest point between the A58 crossing and Dover Bridge, the valley floor gently widens to the east towards Pennington Flash. In the wider part of the valley, better drained areas are used for pasture and hay crops.

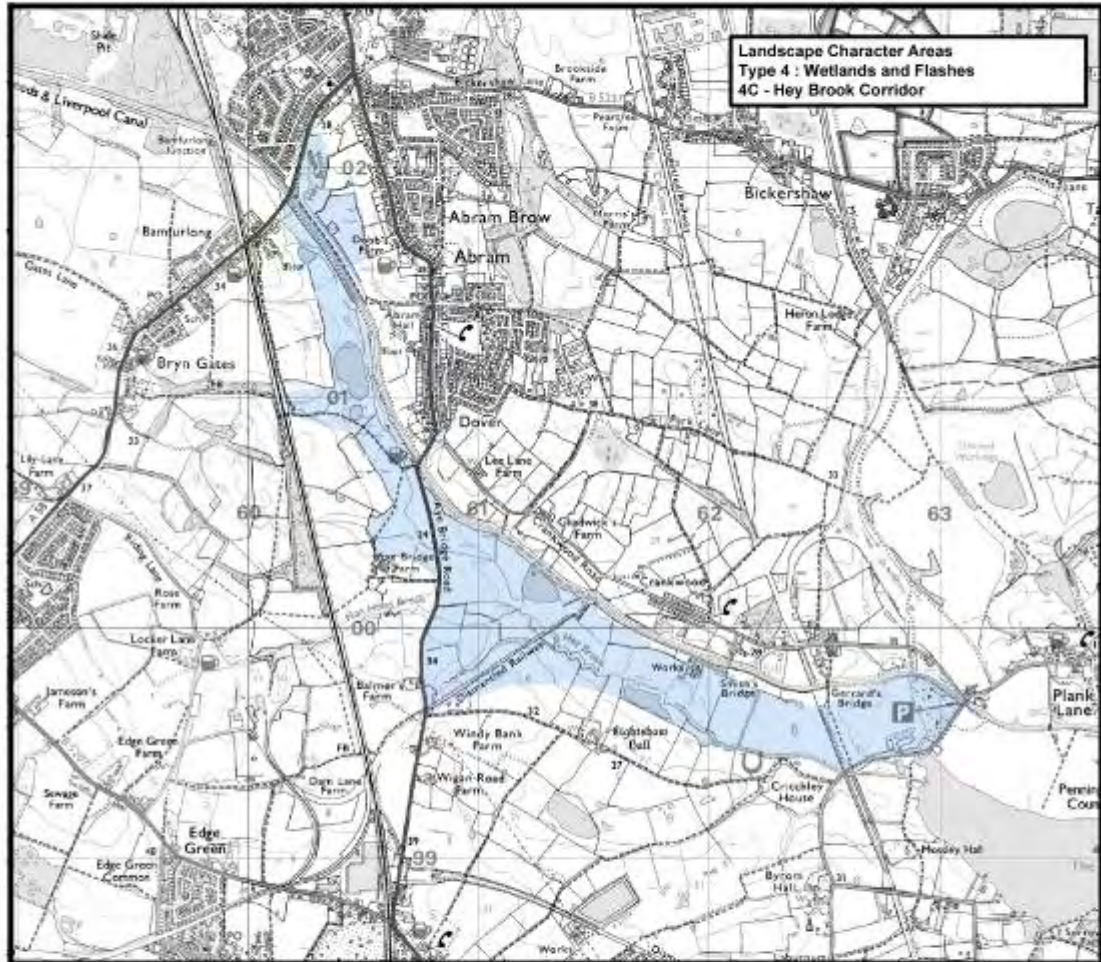


Photo. 101 Hey Brook at Aye Bridge.

Areas adjacent to Hey Brook are characterised by land subsidence, wet meadow and open water, including the Abram Flashes (SSSI). There are few trees, with hedgerows mainly associated with the canal embankment, and some relict hedges on the valley floor adjacent to Lightshaw Hall. Views are of a linear nature associated with the line of the valley and are best afforded from the elevated position of the canal towpath and canal bridges. The area's industrial heritage is represented by old canal bridges and associated buildings of the period.

Key Characteristics:

- Low-lying and flat landscape
- Linear area associated with Hey Brook and Leeds and Liverpool Canal
- Areas of meadow, open water and marshland
- Lack of hedgerows and trees (restricted to Canal embankment)
- Occasional elevated views from the Canal
- Pasture and hay fields



Cultural History

The branch of the Leeds and Liverpool Canal (Leigh Branch) runs through this area to link the main Canal to the Bridgewater Canal. It was completed in 1821 and was principally used to carry coal. One of the main loading points was at Plank Lane Bridge and Lock, where coal from the Bickershaw collieries was loaded on barges, travelling down to the Canal via a tramway.

On the 1849 O.S. map, the floor of Hey Brook valley to the east is shown as flat-floored and 'Liable to flooding'. Clearly much of this land was used as river meadow and much of the field pattern is still as it was in 1849. Hedges are formed from hawthorn and some blackthorn. Subsidence flashes within the area are not as extensive and not as frequent as in the adjacent Wigan Flashes.

Abram Flashes to the west are a Site of Special Scientific Interest (SSSI) comprising an area of 39.62 ha. They are contiguous with Wigan Flashes and carry a similar, rich range of species. The flashes are generally shallow areas of open water surrounded by often extensive margins of emergent vegetation. The habitats include open water, swamp, tall herb fen and wet grassland.

Key cultural elements in the landscape:

- The Leeds and Liverpool Canal with its Industrial heritage features
- Hey Brook and its associated water meadows
- The Abram Flashes SSSI

Landscape Sensitivity and Change

The main landscape focus of this area is the Leeds and Liverpool Canal, built up on an embankment through low-lying areas to either side. During the height of the industrial age, the canal would have been extremely busy with barges transporting goods and materials and with elevated views of the massive Bickershaw Colliery adjacent to the north-east. This image has completely changed. The Canal is now used by occasional leisure craft and the views of Bickershaw Colliery are much less prominent following reclamation and plant re-colonisation. Views from the towpath will be affected by changes to the adjoining landscape areas, currently defined as Undulating Enclosed Farmland Areas B and E and Degraded and Restored Landscapes Area F.

The hay meadows adjacent to the canal and marsh areas associated with Hey Brook, both contribute to create a new more rural and relaxed landscape. These areas, however, are continuing to change and a number of the heritage buildings associated with the Canal are currently being demolished or radically altered. This tends to dilute the positive aspects of the area's character.

Key elements of landscape sensitivity:

- Abram Flashes and other wetlands sensitive to disturbance and potential water pollution
- Sensitive to loss of features of industrial heritage
- Sensitive to changes in the landscape of adjoining areas

Key elements of landscape change:

- Reclamation of Bickershaw Colliery
- Change of canal use from industrial to recreational
- Subsidence forming wetlands and marshes

Recommended Management and Landscape Objectives

The Hey Brook corridor is centred on the Leeds and Liverpool Canal and forms the core area to the open space and agricultural land within the Makerfield Basin and Greenheart. These open areas are in turn almost completely surrounded by urban development from Wigan to the north west, Hindley to the north east, Leigh to the south east and Golborne and Ashton in Makerfield to the south west. It is therefore important that the Hey Brook corridor retains its agricultural and open space qualities and that development in the area is largely restricted to leisure and agricultural uses. Historically, much of this land was used as summer meadow and if possible this use should be encouraged. The canal is the main focus to the area together with its towpath, canal architecture and related industrial heritage. Associated canal structures and related buildings are an important part of the areas heritage and should be conserved or restored where ever possible. Canal related activity should be encouraged.

The Hey Brook Corridor is an important route for waterfowl moving along the flashes; it is therefore important that this route remains open, free of large-scale planting and especially free from overhead cables and tall structures.

The canal towpath forms a strategic route through Greenheart and the Makerfield Basin and new and improved links to it from both the north and south should be strongly considered. Disused railway lines in particular could be utilised to connect to Low Hall Park to the north and to Culcheth Linear Park to the south. Interpretive signs with a possible towpath based heritage trail could also be considered.

Potential problems in the area include fly tipping and possible water pollution from surrounding mine workings and spoil heaps. This should be carefully monitored and contingency clean up procedures considered.

Management of the Landscape:

- Encourage canal based activity
- Encourage regular maintenance and restoration of historic canal architecture and related heritage buildings
- Maintain a mainly agricultural landuse with canal based leisure activities
- Explore the potential for footpath links to the canal towpath along disused railway lines to both the north and south.
- Monitor potential water pollution.
- Encourage the removal of environmental eyesores, particularly when these are easily viewed from footpath routes. Urgently implement clean up procedures if necessary

- Consider interpretive trail in association with the towpath
- Maintain an 'open' corridor free of large scale planting and free of tall buildings and pylons.

AREA 4.D PENNINGTON FLASH

Description

The area of Pennington Flash contains the largest body of open water in the Borough and includes deciduous woodlands to the north and south-east. Hey Brook flows into Pennington Flash from the west with Pennington Brook issuing from the Flash to the east.



Photo. 146 Pennington Flash view north.

The Flash has intricate margins to the water's edge, including large areas of reed beds and associated smaller ponds. Pennington Flash has been designed as a Country Park and is very popular for recreational use. The Park includes a Visitor Centre and associated car parking. The open aspect of the water body reflects large-scale skylscapes and changes of weather.

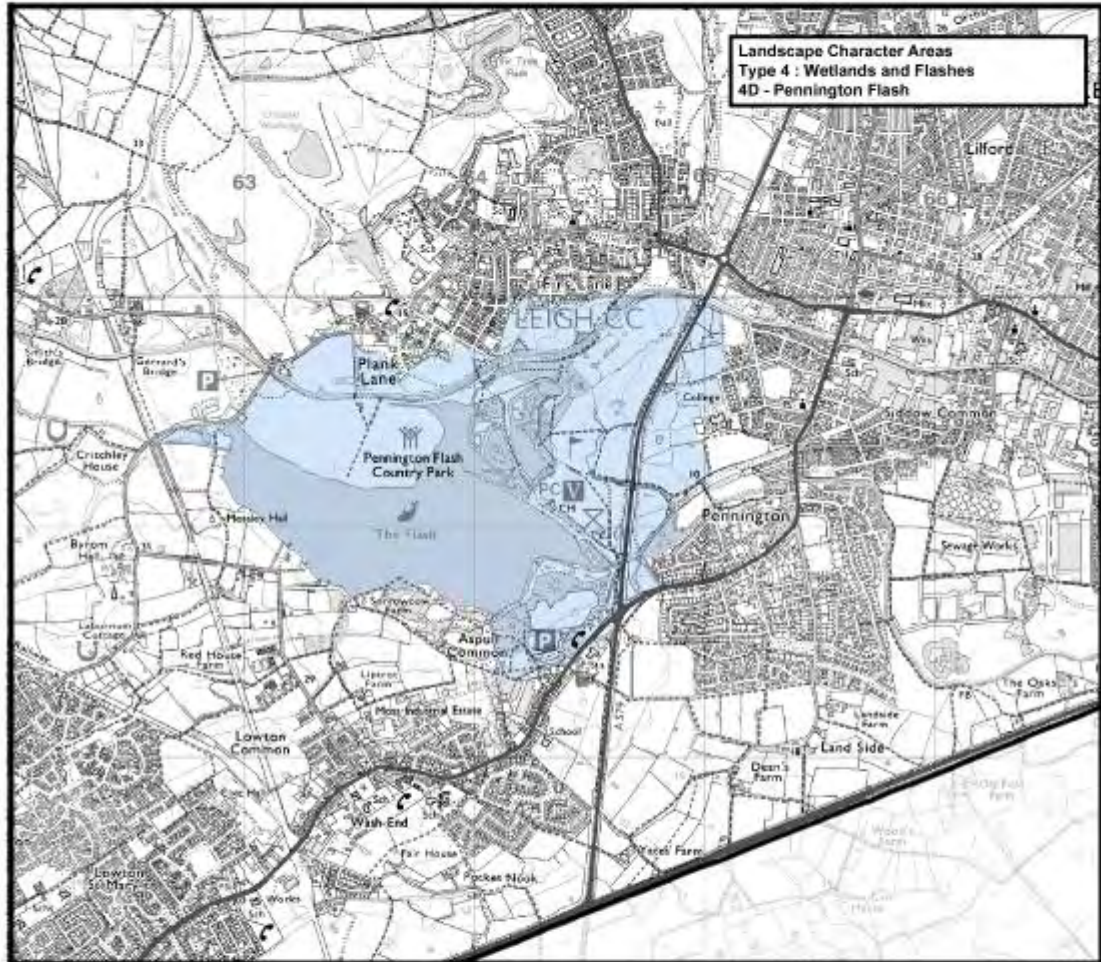
Views are restricted towards the lake from surrounding areas by vegetation and mainly limited to across the lake with longer views towards the Pennines from the southern shore.

Key Characteristics:

- Large body of open water reflecting 'skylscapes'
- Woodland backdrop
- Restricted views across the water and to the Pennines from the southern 'shore'
- Recreational use



Photo. 147 Pennington Flash Country Park



Cultural History:

Pennington Flash was created on originally low-lying ground adjacent to the course of Hey Brook. On the 1849 OS map much of the course of the brook is labelled 'Liable to Floods'. The same map records a number of collieries at some distance away from the Brook. More importantly, there are a chain of moated sites located in the flood plain, including Mossley Hall (slightly higher than the valley floor), Urmston-in-the-Meadows and Hopecarr Hall.

During the C19th, coal mining gained in volume and momentum in the area. Improved technology, particularly in pumping, enabled coal to be won at ever deeper levels and in wetter conditions. Huge volumes of coal were mined under the area of the present Pennington Flash.

It is difficult to determine when Pennington Flash began to form, but seasonal flooding appears to have become progressively worse each year. In 1907, Lower Allanson's Farm, on the north side of the Flash, was abandoned because of flooding. Around 1910, the medieval site of Urmston-in-the-Meadows, on the south side of the Flash, was also abandoned. During the 1920s the flash appeared and disappeared, but in one flood of 1923, residents of housing on Plank Lane were forced to leave. In 1926, Bradshawleach Farm, on the south side of the Flash, just north of the St Helens Bolton Trust Road (now the A572), was flooded. The Flash continued to grow gradually over the years, both in extent and in depth.

In 1935, Leigh Corporation decided to act to reclaim the area for farming and decided to tip colliery spoil into the Flash area. Infilling took place over a three month period, but this appears to have had little effect. In 1938 and again in 1951, all the fish in the Flash were killed by sulphuric acid generated by the action of water on surrounding colliery waste. In 1962 there were more floods and the St Helens Road (A572) was flooded causing substantial disruption.

Currently the Flash is 70 hectares in extent. Wigan Borough Council created Pennington Flash Country Park, a 200 hectare area, including a nature reserve, a nine-hole golf course, (Pennington Golf Club), Lowton Sailing Club and a small-scale Visitor Centre.

A wide range of wildlife may be seen at Pennington Flash, with over 230 bird species recorded. Rarer visitors include Black-faced Bunting, Nightingale, Marsh Harrier, Spoonbill and Leach's Storm Petrel.

Key cultural elements in the landscape:

- Early C20th inundation.
- Loss of medieval farms and associated meadowlands.
- Exceptionally rich wildlife area.
- Pennington Flash Country Park.
- Lowton Sailing Club
- Pennington Golf Club.

Landscape Sensitivity and Change

In common with the Wigan Flashes, Pennington Flash originated as a consequence of subsidence and was surrounded by an industrial landscape badly affected by colliery workings. The Flash has undergone a considerable transformation through reclamation schemes and now forms an attractive 'naturalistic' water body, softened by considerable areas of planting around its margins. It is now well used as a recreational area and by wildlife. Much of the site is now an SBI, noted for its ornithological importance.

Key elements of landscape sensitivity:

- Potential water pollution
- Potential recreational misuse

Key elements of landscape change:

- Change from industrial landscape to a 'naturalistic' and attractive area
- Valuable for wildlife
- Recreational use

Recommended Management and Landscape Objectives

Pennington Flash Country Park has become an established and well managed area of public open space balancing recreational activity with the conservation of both wetland and surrounding woodland habitat. It has a comprehensive footpath system with links to the Leeds and Liverpool Canal towpath and is well used by the local community. The eastern side of the park is well wooded and this disguises external visual impacts from adjacent industry and housing. To the west however open farmland runs down to the waters edge and these areas are more vulnerable to adverse impacts from development. Any development in these areas should be carefully sited and receive associated native woodland screen planting at an appropriate scale. Directional and announcement signage to the Country Park is weak and could be greatly improved from the surrounding road network.

Management of the Landscape:

- Maintain existing balanced management regime for the Country Park
- Resist the encroachment of development particularly to the exposed western side of the lake. New development should be considered in a woodland setting.
- Improve access signage

AREA 4.E HOPE CARR

Description

The Hope Carr area is located on low-lying land adjacent to the Pennington Brook between Pennington and Lately Common. It forms a small isolated area of wetland habitat almost surrounded by industrial, commercial and residential development. It consists of undrained marshy land forming part of the Pennington Brook floodplain, supporting rough grassland and marginal wetland vegetation together with carr woodland.

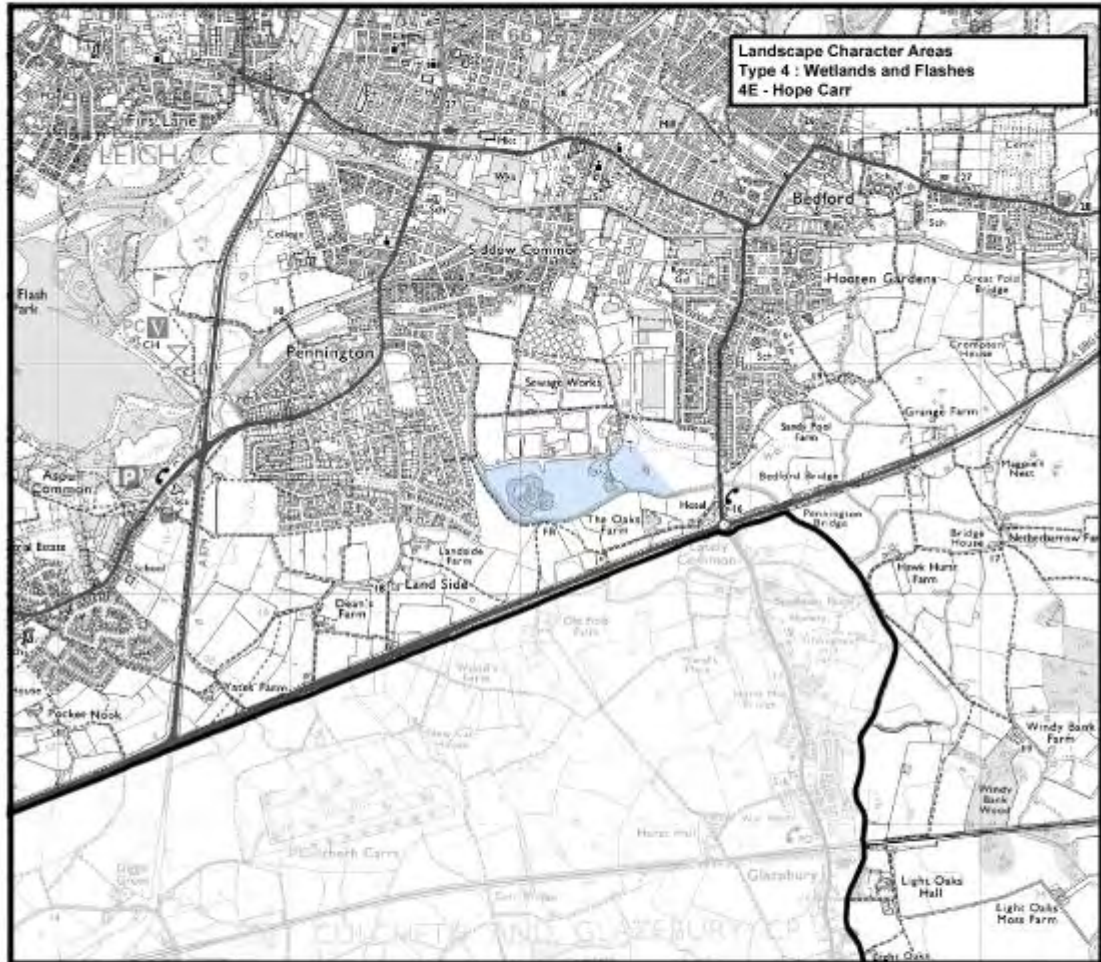


Photo. 175 Hope Carr's carr woodland.

Parts of the area have been managed to diversify wildlife habitat for educational purposes and are designated as a nature reserve. Site improvements include work to both existing and new areas of open water, the creation of footpath systems and new planting centred on Leigh Environmental Education Centre (formerly Hope Carr Terrace), sponsored by United Utilities and Wigan Council. The site is bounded to the south by Pennington Brook and to the north by Siddow Common Sewage Farm. Views both into and out of the site are very restricted.

Key Characteristics:

- Low-lying wetland area
- Restricted views.
- Educational wildlife and habitat resource.
- Marsh vegetation and carr woodland
- Nature Reserve
- Internal footpath system



Cultural History:

Hope Carr Hall was a medieval moated site in the Pennington Brook valley. The old Hall had disappeared from the site by 1849, but some of the ancillary buildings appear to have survived.



Photo 175 Hope Carr threshing barn / Interpretative centre.

To the north of this area is a substantial sewage treatment works. In 1990, the site owners, United Utilities, created a range of habitats on the site and over 130 species of birds can now be found in the area. The area is now a nature reserve with an Interpretative Centre provided by United Utilities located in a converted threshing barn.

Key cultural elements in the landscape:

- Site of former Hope Carr Hall moated dwelling.
- Hope Carr nature reserve.

Landscape Sensitivity and Change

The area represents a vestigial floodplain to Pennington Brook, which is now largely constrained by the embankments of a sewage works to the north and by commercial developments which appear to be encroaching upstream from the south. This leaves the area somewhat isolated in terms of its links to other open space and similar habitats.

Key elements of landscape sensitivity:

- Pressures from surrounding urban areas
- Isolated pocket of open space/wetland habitat
- Potential water pollution

Key elements of landscape change:

- Separation from other wetland and open space areas

Recommended Management and Landscape Objectives

The Hope Carr wetland area is unfortunately physically separated from the adjacent Pennington Flash by the large housing area of Pennington. It is also closely fringed by industrial uses to the north and by more recent industrial/commercial development being constructed from the east. It survives as a wetland open space almost surrounded by development and relates only to the agricultural land to the south (Area 1A). It is therefore very important that the link with undeveloped agricultural land to the south is maintained.

The area is reasonably well served by footpaths with the Glazebury Trail passing through the area before diverting to the south through farmland to connect to Pennington Flash to the west. This route however follows the edge of development and could be greatly improved if associated with a coordinated programme of urban fringe planting as described under Area 1A. A native woodland buffer strip to the development in this area would both strengthen the link to Pennington Flash and greatly improve the views north from the A580 East Lancashire Road.

The central core of the Hope Carr area is a nature reserve and currently well managed for nature conservation. Adjoining marginal agricultural land/wetland areas to the south if amalgamated with the reserve would if appropriately managed create a more viable area of wetland habitat. This proposal should ideally be explored and encouraged.

Management of the Landscape:

- Maintain existing balanced management regime for the Country Park
- Consider additional native woodland planting particularly in relation to the urban fringe and as a stronger link between Hope Carr and Pennington Flash.
- Resist any further development within the agricultural land to the south of Hope Carr
- Explore the possibility of extending the nature reserve/wetland to the south over marginal farmland areas