
3.0 EXISTING ECOLOGICAL SITUATION

3.1 Background and Methodology

Due to the wealth of existing habitat information for the St Helens Canal the ecological importance of the area has been assessed through consultations and a brief walkover survey of some of the main sites. This survey information is compiled from notes and reports produced by the three Borough Councils dating from the late 1970's to the present day. It should be noted, however, that sites of potential ecological value may exist outside the survey areas. It is recommended therefore that a detailed survey is undertaken of the entire canal at detailed design stage including fauna surveys for protected species such as badgers, bats, great crested newts and specific bird nesting areas.

Consultations were held with: St Helens Metropolitan, Warrington and Halton Borough Councils, Cheshire Wildlife Trust, RSPB, Woodland Trust, Sankey Valley Country Park Rangers, Groundwork Trust, Joint Countryside Advisory Service and the National Rivers Authority. The various surveys are identified on Drawing Numbers AY2311/120/850/007 and 008 and listed numerically by reference number in Table 3.1 starting at Widnes Lock and running northwards to St Helens.

The canal falls within the areas of the three Borough Councils, running from Widnes Lock at Spike Island on the River Mersey to the centre of St Helens, a total length including branches of approximately 26 km (16 miles).

There are no sites that have statutory designations for nature conservation importance in the immediate area. These would include National Nature Reserves (NNR's), Sites of Special Scientific Interest (SSSI's) and Local Nature Reserves (LNR's). NNR's are designated under Section 35 of the Wildlife and Countryside Act 1981 (as amended) and the National Parks and Access to the Countryside Act 1949. SSSI's are sites of National importance relating to fauna, flora, geological or physiological features which are afforded some protection from potentially damaging operations.

No SSSIs are located along the canal, however there are sites with non-statutory designation which are afforded no statutory protection but are designated by local authorities due to their local, district or county value as Sites of Biological Importance (SBI's).

Twig Wood, located in the vicinity of Old Bewsey Hall and Callands Pool, is an ancient woodland site of approximately 3 hectares. Such a site is believed to have been wooded continuously since 1600AD and thus possess a unique flora. This site is currently not designated as an SBI under policy NC1, but the dis-used St Helens Canal which runs from Fiddlers Ferry to an inlet of the River Mersey at Moss Bank is a linear Grade C SBI. A Grade C site is usually protected by planning policies to presume against developments which could adversely affect them.

This site is within Halton and Warrington Boroughs and comprises marginal, tall herb and fen and open water habitats. Phragmites predominates along the stretch supporting a good insect population. It is understood that Halton Borough Council intend to extend the designation to Spike Island at Widnes Lock .

Another potential, as yet undesignated SBI, is an area of seasonally flooded grassland to the west of the Sankey Brook and extending upto the canal just south of the M62 Junction 9. This has potential due to its wetland habitat and its associated birdlife. Large numbers of the relatively uncommon Snipe have been noted in this area during the winter.

Other designations associated with the conservation of natural and semi-natural habitats include most notably the Sankey Linear Park which runs for over 6 kilometres in the land between and bordering the Sankey Brook and St Helens Canal. This park represents a wildlife corridor of considerable existing and potential value.

The Mersey Valley Corridor constitutes a range of terrestrial and aquatic habitats and extends along the southern stretch of the canal from Moss Bank to Sankey bridges. Planning policies associated with this valuable green corridor seek to protect, restore and enhance its river valley habitat.

3.2 Existing Habitats

St Helens and Warrington Boroughs have frequent areas of standing, open and running water with associated marginal marshy areas. The amenity and recreational value of the St Helens Canal is of considerable importance across all the Boroughs that it spans.

The canal corridor is described in sections beginning at Widnes Lock and travelling towards St Helens.

In order to identify those sites of higher significance in terms of their nature conservation from others an objective assessment has been made to ensure that the areas of most value are not damaged by the restoration activities. This assessment was undertaken using Ratcliffes' criteria (1977) on the basis of existing species records, occurrence of uncommon species, size of site, potential for development and fragility and rarity of the habitat. This is a general assessment but provides a form of objective evaluation. Sites have been assigned a Grade ranging from 1 to 4 with Grade 1 representing the highest value and Grade 4 the least.

Grade 1 : Very High Value requiring protection from adverse effects : a site already designated; possessing at least 1 rare or scarce species on/or immediately adjacent to the canal; supports diverse wildlife; comprises at least three types of habitats; not easily recreated and of particular value to the canal.

Grade 2 : High Value : possessing a number of uncommon species; supports diverse wildlife; comprising at least two types of habitat; on or near to the canal.

Grade 3 : Medium Value : Site greater than 100m from the canal; possessing some uncommon species and wildlife but not characteristic of a canal environment; opportunities for enhancement.

Grade 4 : Low Value: not necessarily characteristic of the canal route and could be recreated.

3.3 Description of Sections

Widnes Lock and Spike Island to Fiddlers Ferry Yacht Haven (chainage 0-5440m)

This straight section of the canal is within Halton Borough upto Cuerdley Marsh after which it enters Warrington Borough. The area is dominated by views of the sand banks and marshes of the Mersey estuary, the power station and old factory sites. The area is heavily polluted through it's past industrial use. To the north, waste tips about the canal mostly comprised of pulverised fuel ash from Fiddlers Ferry Power Station. These banks, however, have been observed as supporting some unusual plants and birdlife such as sand martins which make their home in them.

This section is dominated by the linear SBI which could be extended in the future towards Spike Island. The SBI was designated in 1986 and revised in 1992. The site constitutes a linear water body fringed by dense stands of common reed (*Phragmites australis*) and reedmace (*Typha latifolia*) which are exploited as habitats by a number of birds. These include sedge warbler, sand martins, swallows, little grebe, mute swans and herons.

The close proximity of the Mersey Estuary also leads to numerous sightings of typically maritime birds such as cormorant, shoveler, dunlin, oystercatcher and pochard. The emergent and aquatic vegetation within this section of the canal supports a dense population of insects that are food for the rare pipistrelle bat also found to frequent this area. The site is relatively fragile as it depends largely on restricted public access and low levels of disturbance. The site covers the canal and marginal banks and as it is a very fragile habitat the effects of restoration could be substantial. There is potential for the area to be extended to include a larger aquatic zone and therefore increase the biological importance of the site. The protection of the site from adverse restoration impacts is paramount and it is therefore assigned a **Grade 1** Restoration site.

This southern section of the canal was surveyed by Warrington Borough Council in 1992 (Reference A to D). An abundance of PFA contamination was noted with apparent poor water quality. Fleabane and coltsfoot (*Tussilago farfara*) were noted due to the acidic nature of this waste in addition to hard and soft rushes. Common reed (*Phragmites australis*) and yellow flag (*Iris* spp) were recorded on the northern bank of the canal with some trees. The area has outstanding birdlife due to its sheltered range of habitats supporting a good population of invertebrates and amphibia, its limited public access and adjacent estuarine feeding grounds. Moorhens, mallards, water-rail and little-grebe have been noted as breeding in this area and indications that swans also may have bred successfully here. Herons and warblers feed in this area, the former of which are notorious for being extremely sensitive to disturbance of any kind.

Fiddlers Ferry itself is dominated by the marina with a number of boat moorings and a public house. At the time of the brief walkover survey a number of anglers were noted in this area. The water quality appeared visibly poor and this was reflected by very little diversity in wildlife or vegetation. It appeared to be a section which could benefit from restoration by creating offside planting thus maintaining the character of the landscape which is well established in the SBI. The landscape is of low visual value in this region due to the open mud flats, level land and industrial dereliction and could be improved through offside planting.

Fiddlers Ferry to Sankey Bridges (chainage 5440-8155m)

This stretch is linear and largely maintains the original masonry walls which are colonised by interesting mosses and liverworts particularly on the southern wall of the canal. Common reed stands are dominant along this stretch with some overhanging trees and scrub. Dragonflies were noted during the walkover survey and numbers of mallards and moorhen using the reed fringe for shelter.

Union Bank Brook to the south of the canal is tidal and has been noted by Warrington Borough Council as possessing great potential for enhancement. This site is **Grade 3** as it is not integral to the main canal and its value lies primarily in its potential for enhancement during restoration. Kingfishers which are resident in the Borough have been recorded in this area. These birds are not commonly seen in this part of the country and are becoming increasingly uncommon throughout Britain due to their intolerance to high levels of disturbance. It is considered however that canal barge traffic is unlikely to disturb these birds to such a degree that they would take up residence elsewhere.

The section just south of Sankey Bridges appears to be suffering from the localised contamination, particularly landfill gas. Surprisingly the waste supports interesting assemblages of herbs and grasses and dense thickets of scrub.

The pond and associated wetland east of the canal bordering Sankey Brook and the railway line has been identified as a key site of interest (survey Reference J). The site now known as The Sankey Bridges Reedbed Nature Reserve was originally a water meadow before the site was excavated for the tipping of domestic waste. It is derelict land that was excavated and used as a local rubbish tip site in the 1960's. This ceased when the nearby Gateworth tip was opened and the succession of habitats present are similar to that of an unmanaged site.

The pond supports dense stands of common reed and reedmace. It is understood through correspondence with the Sankey Valley Country Park Ranger that the wetland nature of this site is maintained through a drainage ditch which runs parallel to the canal and by the historic hollowing remaining on the completion of the former Gateworth tip. The brook and canal add interest to the site and act as an aquatic corridor for invertebrates, fish, amphibians and birds. The site is recorded as being excellent for amphibia and also for breeding birds (swans successfully bred in 1992).

Warrington Borough Council intend to designate this area as Sankey Bridges Reedbed Nature Reserve. This site is of very high value as it is likely to be hydrologically linked to the canal and is therefore assigned a **Grade 1** Restoration site.

The proposed Management Plan for the site sets out a grassland and reedbed management programme. It was identified that the availability of open water was diminishing and that some of the common reed and bulrush should be removed and steep banks formed along one side to create a nesting site for kingfishers. It is essential that this site is protected from construction damage and is not used as a vehicle depot. In order to ensure the site is protected it may be necessary to fence off the site and restrict vehicular access.

Sankey Bridges to Hulme Lock (8155-12645m)

An unauthorised lorry park and builders yard are located to the immediate north of Sankey Bridges. The western canal bank wall supports a range of mosses and liverworts. Upstream of this section is a stretch of wooden ledge and boarding (survey reference M and N) with common reedmace beds, bulrush, common rush, soft rush and yellow flag iris. Alder saplings growing along the wall in this section provide shading and cover for roosting waterfowl.

The wetland area to the south of Bewsey Railway Viaduct (survey reference O) is a key site for nature conservation. This area is in the Sankey Valley Country Park Wetland Nature Reserve which attracts many visitors for both recreational and educational purposes. It has extensive stands of reedmace and common reed at the waters edge and diverse aquatic flora providing an excellent habitat for invertebrates and waterfowl such as swans, little grebe, coot and reed buntings. Bats are also known to feed in the area, in addition to it being home to a number of rare species such as the water vole and hairy dragonfly. The general area is of high landscape value and the site serves the local housing estates.

The site maintains its wetland nature through flood water from the Sankey Brook, however there could be some hydrological connection between the canal and the site. This site is a **Grade 1** Restoration site due to its established diverse habitats and proximity to the canal.

The next 800m or so represent the area with most ecological potential (survey reference P, Q and R) in the stretch outside of the disused St Helens Canal SBI. This area includes a number of excellent water features which open into the

canal, ancient woodland (Twig Wood), Callands Stream, good examples of marginal emergent and aquatic vegetation and features of the canal's heritage.

Callands Pond is a **Grade 2** Restoration site as it is offline from the main canal but comprises a range of species and habitats which should be protected from boat traffic and general disturbance. It is reliant upon the canal for its water and therefore any dredging operations should be undertaken while the canal is in water. As part of the restoration activities it would be beneficial to increase the amount of marginal vegetation to establish a good insect and aquatic fauna population which will in turn attract waterfowl to feed and nest. A footbridge is planned to cross the mouth of the pond which will prevent boats from using it as a winding hole.

Bewsey Lock and Spill-Way are currently dry and home to a range of shade and moisture loving ferns, mosses and liverworts. Immediately north of Bewsey Lock the canal is dry but is colonised by orchids, common sedge and lesser celandine which are also seen in the infilled sections. A marshy habitat has developed due to this area receiving surface water flow from the surrounding higher ground.

The Dallam area is dominated by rough neglected grassland with mature woodland and scrub at the margins. The area forms the central part of the Sankey Valley Country Park within Warrington. There are numerous footpaths, footbridges and landscaped open space in the area around the developing Gemini Industrial Estate. The infilled section of the canal north of Dallam and up to Hulme Lock is occasionally flooded by Sankey Brook which runs adjacent to it. This creates semi-permanent pools and wetland areas with scrub, grassland and occasional reed and soft rush in the wetter areas. In the Dallam area the Sankey Brook runs in the bed of the old canal.

The area just south of the M62 at Junction 9 is of potential SBI status due to the large number of wintering birds which visit the site each year. This is partly due to its relative isolation, even though it is so close to the motorway, there is limited access and therefore disturbance. This site is **Grade 2** due to the high density of birds which use this area, these include large numbers of Snipe, Sedge Warblers and Reed Buntings. This site has great potential for development into a larger wetland area by receiving floodwater from the Sankey which would increase the size of this habitat.

Hulme Lock to Sankey Viaduct (12645 - 16575m)

The canal to the north of Hulme Lock has been infilled and its original route passes under the M62. The dry Winwick Quay and Winwick Dock area is of limited ecological interest as the land is mostly intensively managed and colonised by invasive ruderals. Following restoration, the old dock could be retained and provide a refuge for moisture loving plants from elsewhere along the route of the canal. The old walls to the Lock, Quay and Dock are assigned a **Grade 3** as they have future potential value to ferns, mosses and liverworts.

To the north of Winwick a plantation area is present to the east of Sankey Brook along the original route of the canal. This plantation is **Grade 4** as it would be easily recreated if it is removed as part of the restoration.

To the east of the infilled canal, south of Hey Lock in Vulcan Village a large area of rough disturbed grassland is present with over 50 species recorded including small flowered crane's bill (*Geranium pusillum*), field pansy (*Viola arvensis*), and compact, soft and hard rush (*Juncus conglomeratus*, *J. Effusus*, *J. inflexus*). This site has limited access being bordered on the east by a railway line. Newton Brook flows across the southern section of this site. As part of the restoration proposals, this area could be artificially flooded by restricting flow in the brook. This would enhance the grassland and could provide a complementary area to that south of the M62 for wintering and nesting birds. Although the area is presently one of average nature conservation value its location and potential for enhancement increases its value particularly in terms of the canal restoration opportunities. The site is therefore given a **Grade 3**.

Further north the invasive Canadian waterweed (*Elodea canadensis*) is present in the canal with bulrush, common reed and reed canary-grass. Gorse (*Ulex europaeus*) was abundant in the dryer section of Hey Lock (**Grade 3**) during the 1983 surveys carried out in the St Helens Borough. Male fern (*Dryopteris filix-mas*) is present on the lock walls and should not be damaged during restoration.

Old Hey Wood which lies on the steeply sloping banks to the canal is unfenced and dominated by oak (*Quercus spp*) and sycamore (*Acer psuedoplatanus*) with an understorey of hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), garden privet (*Ligustrum ovalifolium*) and damson (*Prunus domestica Ssp institia*). Damson, garden privet and hornbeam (*Carpinus betula*) are relatively uncommon in this Borough. Due to its steeply sloping nature and abundant tree and shrub cover it is likely that badgers could either use the area for foraging or for setts.

This wood also enhances the visual aspects of the canal and it is important that this is not damaged by the restoration works. The wood is **Grade 1** due to its proximity to the canal and its uncommon species composition. The water quality in this area is usually good, however pollution has resulted from the old sugar works.

In the location of the Sankey Viaduct there is a large area of acidic Leblanc waste (locally known as Mucky Mountains) by the site of the former sugar works (survey reference 4 and 5). Surprisingly, the area, although bare in places, supports over 60 species with a number of these being relatively rare in the Borough such as annual wall rocket (*Diplotaxis muralis*), yellow-wort (*Blackstonia perfoliata*) and quaking -grass (*Briza media*). A survey in 1983 also identified the rare pyramidal orchid (*Anacamptis pyramidalis*) and spring sandwort (*Minuartia verna*), the later of which is nationally rare. The pond in the grounds of the old factory contained commonly occurring water plantain (*Alisma plantago-aquatica*) and the localised waterwort (*Callitriche* spp). Although the site has a large number of uncommon species it would be possible to recreate the communities and enhance existing ones, it is therefore **Grade 2**.

The area could be enhanced as part of the restoration works to colonise the bare areas, likely to have resulted from motorcycle use, in addition to the creation of ponds. A development site is highlighted to the west of the site adjacent to the canal. This could be developed alongside the enhancement of the surrounding grassland ensuring that any site drainage is not delivered into the ponds without pollution control measures being installed. During the restoration process it would be important to restrict construction traffic to land which is not colonised by the more interesting flora.

Sankey Viaduct is mainly in an area of rough grassland with reed canary-grass dominant in this section of the canal. Beyond the old sugar refinery the area is landscaped with alder, willow and birch. The invasive and virulent Japanese knotweed (*Reynoutria japonica*) forms dense thickets along the canal.

Sankey Viaduct to junction with Blackbrook Branch at Old Double Lock (16575-20695m)

This section includes Newton Common Lock, Penkford Bridge and Engine Lock. Just north of Sankey Viaduct is a large landscaped area with planted trees and shrubs and a small pond. The Brook at this location appears polluted and fast flowing with sycamore, willow and elder on its banks.

Past Penkford Bridge on the north side of the canal, Newton Common comprises pasture with a pond in the centre of the canal colonised by a variety of marginal and aquatic species.

Havannah Flashes, at grid reference SJ 548 958, are in an area of mining subsidence and show high species diversity and little evidence of pollution. The site is typified by numerous flashes of varying depths amongst a small wooded valley. A number of rare species are present such as autumnal water-starwort (*Callitriche hermaphroditica*), small sweet-grass (*Glyceria declinata*), water forget-me-not (*Myosotis scorpioides*) and buttercup (*Ranunculus circinatus*). Swallow, blue tit, coot and moorhen frequent the Flashes which include wooded areas. A large number of invertebrates are recorded which reflect the birdlife attracted to this site. Information on the invertebrates present are recorded at the biological records centre at Liverpool Museum and the Sankey Country Valley Park. The site is of outstanding importance and **Grade 2** as a result of the historic construction of the canal which created the flashes and hence its unusual community. It is essential that this area is maintained or that adequate compensation is provided in order to rescue the uncommon species for translocation to new areas. The restoration proposals in this area could involve the removal of some of the flashes which, although undesirable, could be mitigated as long as adequate compensation land adjacent to the new canal is made available.

Further upstream at the old Broad Oak colliery and adjacent to a sewage works a large alkaline and acidic grassland area with tall herbs and wetland vegetation is present. The site is bordered by agricultural land and the former colliery site to the south. Despite its industrial past history, a number of birds are attracted to the area due to the diverse insect populations (**Grade 3**). The former colliery basin, located on the south bank just below Old Double Lock, could be maintained following restoration to create on offline habitat. The historic stone walls would add to the heritage value of the site.

Wagon Lane is located on the southern side of the canal associated with grassland and pasture with no particular flora to note, however between Wagon Lane and the old swing bridge to the west is an area of potential value highlighted in the Environmental Advisory Unit Report (1983) which assessed the biological value of the canal. The site is therefore **Grade 3** for restoration purposes. The canal in this Broad Oak and Ashton Green area will benefit from the retention of the more uncommon aquatic species in the location such as some of the pondweeds.

Old Double Lock to Liverpool - Wigan Railway Bridge (20695 - 23350m)

Hardshaw Brook is located at SJ 520 950 approximately 1 km from the canal runs in a concrete bed and was polluted at the time of the St Helens surveys in the 1980's. Leblanc waste is prominent in this location to the east and west of Boardmans Road. Yellow wort (*Blackstonia perfoliata*), fairy flax (*Linum catharticum*) and damp mosses such as *Amblystegium riparium* and *Brachythecium rutabulum* are located closer to the canal.

Merton Bank Marsh located at grid reference SJ 525962 is a site of rich and varied marsh species due to its age (estimated at 200yrs). The site comprises of marsh, reedbeds and drier generally alkaline grassland. The reedbeds are particularly impressive due to their size which is only comparable to those found at Havannah Flashes. The site is rare in a city centre supporting a number of uncommon species including yellow loosestrife, fleabane, marsh penny-wort and marsh orchids. Due to the relative fragility of the site it would be of benefit to the existing ecology if public access and any construction vehicles were restricted. The site is therefore **Grade 2**.

Gerrards Bridge (SJ 523 964 - 515 963) runs to the west of New Double Locks for approximately 340 metres. It is a canalised stretch of Rainford Brook and is bounded to the west by the Liverpool to Wigan Railway and to the east by the A571. A survey carried out by St Helens Borough Council in 1983 identified the area to be dominated by waterplants such as branched bur-reed (*Sparganium erectum*) and pondweed (*Potamogeton spp*). Haresfinch Burghy Bank forms the northern bank to the canal, which receives some runoff from the Bank. At the time of the survey it was noted that, although the area is comparatively badly polluted by the acidic and alkaline wastes stored in the embankment, the habitats and species in the immediate area have not suffered significantly.

The south bank is associated with rough grassland species such as rosebay willowherb (*Epilobium angustifolium*) and false oat-grass (*Arrhenatherum elatius*) and the emergent and marginal habitats dominated by reed canary-grass (*Phalaris arundinacea*). A number of plants relatively rare in St Helens district were also recorded such as common broomrape (*Orobanche minor*), Virginia creeper (*Parthenocissus quinquefolia*) and canary grass (*Phalaris canariensis*).

Communities on the northern bank of Gerrards Bridge included large stands of branched bur-reed (*Sparganium erectum*) and numbers of the much rarer bur-reed (*S. emersum*) and water-plantain (*Alisma plantago-aquatica*). To the east large

amounts of pondweed (*Potamogeton natans*) and a relatively uncommon species *P. Pectinatus* are present. Bank vegetation is relatively rich with a number of rare species such as Lyme -grass (*Leymus arenarius*) creeping willow (*Salix repens var argentea*), broad-leaved osier (*Salix x sericans*) and unusually sea buckthorn (*Hippophae rhamnoides*). This later shrub is usually associated with maritime habitats and sand dunes and is most probably developing here due to the sandy wastes forming this bank.

These surveys have identified a considerable level of conservation importance and potential for enhancement due to the unusual species composition and their vigour. The site is a **Grade 1** restoration area. The future potential of the area is dependent upon the concentration of contaminants, the proposed engineering works and proposed end use for the restored canal. There are no engineering structures proposed in this area.

Old Double Lock to south of Carr Mill Dam (20695 - 22750m)

Slitting Mill Basin at SJ 534 967 is located on the Blackbrook Branch south of Carr Mill Reservoir. This area has been assessed by the NRA and through Phase I and II habitat surveys undertaken by St Helens Borough Council between 1981 and 1990 (survey reference 16 to 20). It also forms the northern part of the Sankey Linear Park. Blackbrook Branch is in an area of former collieries (Laffog, Blackbrook and Stanley Collieries).

Carr Mill Reservoir is artificial and used for amenity and leisure activities such as water skiing and boat racing. It is included in the appraisal as it is integral to the restoration and is therefore given a **Grade 2**. The reservoir is also stocked with coarse fish and as such is regularly used by anglers. The shallower edges of the reservoir attract moorhens,coots and mallard. The water has been noted as supporting the freshwater mussel (*Onodonta cynaea*). At the south bank where the water flows into Black Brook the area is associated with a few ash,holly and oak with grassland herbs dominating.

The reservoir will be required as a water source for the restored canal in the northern reaches. The resultant drop in water levels will be of significance to the species colonising it and the conflicting requirements of the recreational users. It will be essential to retain areas of marginal wetland at the edges of the reservoir and restrict recreational activities away from these by way of a Management Plan and strategy.

Glass House Wood approximately 500m to the north of Slitting Mill Basin, is a deciduous woodland with a large stream and habitats ranging from acidic oak woodland to alder carr and marsh. The site is included in the appraisal and **Grade 3** due to the potential indirect impacts that could follow if the Blackbrook branch was fully restored. Survey notes from 1977 indicated dense willow (*Salix* spp), bracken (*Pteridium aquilinum*) and great willow herb (*Epilobium hirsutum*) at the southern end of the branch opening into a wetland areas of high diversity. Song thrush, great-tit, blue-tit, wren, yellow hammer and willow warbler have all been recorded in this area. This wood is unlikely to be affected by direct impacts from the canal restoration but it could suffer from access pressure due to its pleasing appearance. Day visitors may be attracted to the wood for picnics which could create severe disturbance.

St Helens Canal, at approximately 200m downstream of the basin was recorded as supporting a range of over 60 species of flora including fool's water cress (*Apium nodiflorum*), common water-starwort (*Callitriche stagnalis*), lady fern (*Athyrium filix-femina*), toadrush (*Juncus bufonius*), water forget-me-not (*Myostis scorpiodes*) and branched bur-reed (*Sparganium erectum*). More invasive non-native species are also noted from the 1990 survey with Indian Balsam (*Impatiens glandulifera*) and Japanese knotweed (*Reynoitria japonica*). This area would benefit from limited disturbance as its community has developed as result of the fragile environmental conditions which prevail. Management through removal of the invasive species would be beneficial.

Tootal's fields at SJ 534 971 **Grade 2**, just to the north of the basin have remained uncultivated for approximately 30 years (reference Merseyside County Museums 1980) with a number of sedges (*Carex flacca*, *C. Otrubae*, *C. Ovalis* and *C. Remota*) and abundant orchids (*Dactylorhiza fuchsii*) and Yellow-wort (*Blackstonia perfoliata*). Ponds in the fields had *Lemna minor* floating on them. The sedges and orchids are rare occurrences in this area and should be protected from damage from construction works or drainage and any disturbance pressures such as increased access.

This branch possesses an uncommon assemblage of flora and extensive wildlife and should be protected. Ideally the area could be enhanced through careful clearing of dense thickets of invasive species and restoration and extension of wetland areas. SCARS have undertaken small scale clearance on the terminal basin with the assistance of the Sankey Valley Country Park Ranger Service. The Blackbrook Branch is a **Grade 2** Restoration site due to the diverse range of

habitats that have established and its potential value as a reserve for species which require translocation during the restoration.

New Double Lock to St Helens Terminus (22750 - 24275m)

This area is heavily contaminated. The canal is generally of low ecological value but is well served by tourist attractions in its southern reach such as the Hotties.

At detailed design stage it would be advisable to survey the area to identify those species which require reinstatement or translocation to one of the allocated reserve areas.

3.4 Summary

There are a number of sites of existing or potential nature conservation importance along the canal route. These sites should be protected from construction damage and disturbance and if possible enhanced through appropriate management techniques. The main sites are listed in Table 3.1

	SITE NAME	RESTORATION GRADE
1.	Disused St Helens Canal SBI	1
2.	Union Bank Brook (survey Ref F)	3
3.	Sankey Bridges Reedbed Nature Reserve (survey Ref J)	1
4.	Sankey Valley Country Park Wetland Nature Reserve (survey Ref O)	1
5.	Callands Pool, Bog Garden Pond and wetland area north of Sankey Bridges (survey Ref P, Q, R)	2
6.	Potential SBI to west of Sankey Brook and south of M62	2
7.	Between Hey Lock and Bradley Lock	3
8.	Old Hey Wood	1
9.	Leblanc waste around Sankey Viaduct	2
10.	Havannah Flashes	2
11.	Wagon Lane area	3
12.	Tootal's field and Blackbrook Branch	2
13.	Carr Mill Reservoir	2
14.	Merton Bank Marsh	2
15.	Gerrards Bridge Branch (Haresfinch Bank)	1

SITES OF ECOLOGICAL IMPORTANCE

Table 3.1