



**Project Eagle
Former Tessengerlo Site
Widnes
Extended Phase 1 Habitat
Survey**

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Executive Summary

ENVIRON U.K. Limited (ENVIRON) was instructed by Stobart Group Limited (the Client) to undertake an Extended Phase 1 Habitat Survey of the Former Tessengerlo Site, Desoto Road, Widnes (the site). It is understood that the client wishes to develop a large refrigerated storage unit at the site as part of a wider development scheme (Project Eagle).

A desk study and extended Phase 1 Habitat Survey were undertaken to support the planning application for this. The Site is not designated in any way for its nature conservation importance and there are no records of observations of protected or notable species on the Site itself (which is mostly hardcore surface at present). However the Mersey Estuary, a Special Protection Area (SPA), RAMSAR site, Important Bird Area (IBA) and Site of Special Scientific Interest (SSSI) are located adjacent to the site.

The site is around 19ha in size but those aspects of it that could be regarded as potential habitat are relatively small comprising a playing field, some trees and hedges. The majority of the site was a former heavy chemicals manufacturing complex that has been razed to now form a large expanse of hardcore covered in pallets of insulation material. There is a brook (Marsh Brook) along the western boundary of the site but this is moribund and was effectively a chemical drain and thus is of little ecological value at present. The development of the site will involve substantial upgrade of this brook.

The diversity of species on the site is considered to be relatively limited and is not typical of any of the local natural habitats. Overall the site is considered to be of **low to Intermediate** ecological value in its present state.

Development of the site provides the potential to enhance the ecological value of the site (and especially Marsh Brook) considerably. The development proposals will take into account the design of landscaping or planting options to retain and create habitats where possible and introduce further diversity of locally native species to the site.

Two areas of Japanese Knotweed, an invasive species, were identified in the Northern Area of the site and were Target Noted (TN1 and TN2 on habitat map). It is recommended that these areas of Japanese Knotweed are treated or the knotweed is removed off-site or is removed and disposed of on-site using an adequate method of burial.

1 INTRODUCTION

1.1 BACKGROUND

ENVIRON U.K. Limited (ENVIRON) was instructed by Stobart Group Limited (the Client) to undertake an Extended Phase 1 Habitat Survey of the Former Tessenderlo Site, Desoto Road, Widnes (the site). Stobart Group is intending to develop this site with a large refrigerated storage unit and associated ancillary uses. This will be the subject of an imminent planning application. Although the site in itself (which is mostly hardcore and palletized goods) is not expected to be of major ecological value, the client thought it would be prudent to undertake an ecological survey of those areas that are vegetated and given its proximity to the Mersey Estuary, which is a European designated protected habitat.

1.2 OBJECTIVES

The aim of this survey was to provide a description of the existing habitat types, to determine the existence and location of any ecologically valuable areas and to identify the presence of any protected species. This information will serve to assess the ecological impact of any development at the site and identify any ecological constraints and/or mitigation measures required and also identify any enhancement measures that may be possible.

1.3 SCOPE OF WORK

The study comprised the following elements:

- a review of information from nearby designated sites, and records of protected species and habitats within the area. Sources of information included:
 - MAGIC (Multi-Agency Geographic Information for the Countryside) online database;
 - Information from the National Biodiversity Network;
 - Publically available information from Halton Borough Council;
 - The Halton, and Cheshire Biodiversity Action Plans.
 - The national UK Biodiversity Action Plan (UKBAP)
- Consultation with local sources of information pertaining to historic and current records of species at the site and in the surrounding area, including rECOrd the local biological records centre; and
- A site visit to characterise the major habitat types present and to assess the potential for protected species.

1.4 SITE LOCATION

The National Grid Reference of the site centre is 350680, 384195 as indicated in Figure 1. The site is the location of the former Tessengerlo chemical works and has had a long history a chemical manufacturing complex.

The site is accessed from Desoto Road and is located approximately 200m north-west of the Runcorn and Widnes Bridge, and 1.5km south-west of Widnes town centre.

1.5 SITE SETTING

The site is located in an area of predominately industrial use with the Mersey Estuary approximately 30m south of the site and the nearest residential properties approximately 160m east of the site beyond the Railway Viaduct.

The site is irregular in shape and is estimated to cover an area of approximately 19.5 hectares (48 acres). The property is bound:

- To the north-east by a large disused industrial facility which was in the process of being demolished at the time of the survey of the site. In addition a number of smaller industrial units are present, adjacent to the north-east of the site along MacDermott Road. Beyond MacDermott Road is a Railway Viaduct of brick construction, and further north-east is Queensway, the A533 dual carriage way. In the wider area to the north-east are further industrial and light industrial units (500m), the residential area of Newtown (1km) and Widnes town centre (1.5km). In addition, approximately 600m north-east is Spike Island;
- To the north of the site is a round-about at the intersection of MacDermott Road and Desoto Road. Further north is the Railway Viaduct and Queensway. In the wider area to the north are a number of industrial units and a golf course.700m north;
- To the north-west by Desoto Road beyond which is an area of Railway Sidings. Further to the north-east are industrial units beyond which is open land and the A533 main road;
- To the east by MacDermott Road, beyond which is a small area of landscaping and the Railway Viaduct. Further east is Queensway beyond which is the industrial area of West Bank. In the wider area to the east is Runcorn Sands, mudflats associated with the River Mersey (600m);
- To the west by, the West Bank Dock Industrial Estate. Further west beyond the industrial estate is a small area of woodland and Ditton Brook. In the wider area to the west are further industrial properties associated with the Hale Bank Industrial Estate; and
- To the south by Vickers Road, beyond which is a small area of landscaped planting along the Mersey Way (Trans Pennine Trail footpath route). Further south (30m) is the Mersey Estuary at Runcorn Gap. The Runcorn Widnes Bridge is approximately 200m south-east of the site.

In broad terms the site can be described as having a predominantly industrial urban setting on three sides of it and the River Mersey on the fourth. The area is interspersed with small zones of vegetation.

1.6 SITE DESCRIPTION

A detailed site visit was undertaken by ENVIRON on 12th June 2008 a summary of the site as observed is provided below.

The site is located within a predominately industrial area adjacent to the Mersey Estuary in the West Bank area of Widnes. The site was formerly occupied by a Chemical Manufacturing Facility (Tessenderlo) which has since been demolished. At the time of survey the site was observed to comprise of six main areas, the north-western area (c. 0.7ha) comprising hardstanding and used to park haulage vehicles and for storage; the western area (c. 2.4ha) to the west of Desoto Road, observed to be vacant with piles of rubble over patchy hardstanding in poor condition with areas of sporadic plant colonization; the northern area (c. 3.6ha) which comprises a tall grassland habitat with a pile of rubble adjacent to the south of MacDermott Road; the central area (main site, c. 8.6ha) which comprises predominately crushed and compacted brick rubble and was used to store roofing insulation; the Marsh Brook area (c. 1ha) which comprises a canalised channel with concrete lining and steep earth banks with tall ruderal and scrub lining the channel; and the south-eastern Sports Ground area (c. 3.1ha) which comprises a boundary of trees and a grassland area. (See Figure 1 and Figure 2)

2 METHODOLOGY

2.1 OVERVIEW

The study comprised a desk-top study and a walkover field survey. The study was undertaken in accordance with the Institute of Ecology and Environmental Management (IEEM) 'Guidelines for Ecological Impact Assessment in the UK' (2006) and the Joint Nature Conservancy Council (JNCC) Methodology for Phase 1 Habitat Survey.

2.2 DESK STUDY

The desk study consisted of a review of information from nearby designated sites, and records of protected species and habitats on-site and in the surrounding area. Consultation with statutory and non-statutory organisations pertaining to historic and current records of species at the site and in the surrounding area was undertaken, including the following:

- A search of data contained within the MAGIC (Multi-Agency Geographic Information for the Countryside) database, a publicly accessible database with information from various sources, for the presence of any statutory designated sites of ecological interest within 2km of the subject site;
- A search of National Biodiversity Network (NBN) Species records within the 10km grid square in which the site is situated. Note that NBN records data is often out of date and the location of the record is often hard to determine accurately. As such a search of NBN data is considered to be a preliminary indicator of species which may be present within the vicinity of the site and not taken as a confirmation of species presence or absence. In identifying relevant records specific emphasis is placed upon, protected species, UKBAP and LBAP species, recent records and those records within 1km of the site;
- A review of the list of Tree Preservation Orders issued by the planning department of Halton Borough Council was undertaken; and
- A request for information was sent to rECOrd, the biological recording centre for Cheshire, for information pertaining to records of protected species or species of conservation concern within 1km of the site, along with any details for non-statutory designated conservation sites (e.g. county wildlife sites, sites of local importance to nature conservation (SLINCs)).

2.3 SITE VISIT

An extended Phase I habitat survey was carried out on 12th June 2008 by Paul Andrews of ENVIRON UK Ltd. The main habitat types at the site were categorised and mapped according to Phase 1 Habitat Survey Standards (Joint Nature Conservation Committee), and any important features logged as Target Notes (listed in Annex B). A plan of these habitats is included (Annex A) and should be consulted alongside the habitat descriptions presented in the report. Vascular plant species were noted (following Rose, 1981) and rated according to abundance using the DAFOR scale, a standard system for characterising plant abundance, giving each species a ranking of Dominant, Abundant, Frequent, Occasional and Rare within each habitat type. Any fauna present on-site was also recorded.

No survey limitations were identified, the information obtained through the methodology applied is considered to be adequate to assess the nature and value of the habitats present on site.

2.4 PROTECTED SPECIES

The presence and potential for protected species was taken into consideration while conducting the survey. Any fauna encountered were noted, and the site was searched for field signs which could indicate the use of the site by protected species.

2.5 ECOLOGICAL EVALUATION

The habitats and species they support can be ranked according to their importance. Using recognised criteria (Ratcliffe, 1977) the habitats and site are assessed in relation to their size, diversity, naturalness, rare features, fragility, typicalness, connectivity with surroundings, intrinsic value, recorded history and potential value. The seven-point scale in Table 2.1 below, is used to rank the importance of the habitat types and species they support:

Classification	Description
Low	No/negligible importance to conservation
Low to Intermediate	Negligible importance to conservation
Intermediate	Some importance but less than Local importance
Intermediate to High	Locally important to conservation (E.g. Site of Local Importance to Nature Conservation SLINC)
High	Local/District Importance (E.g., Local Nature Reserve)
Very High	County Importance (E.g. Site of Importance to Nature Conservation SNIC, County Wildlife Site)
Exceptional	National importance or greater (E.g. Site of Special Scientific Interest SSSI, Special Protection Area SPA)

3 RESULTS

3.1 DESK STUDY

The results of the search the MAGIC database is reported in Table 3.1 below.

Site Designation	Site Name	Distance	Reference
Special Protection Areas (SPAs)	Mersey Estuary	30m S	UK9005131
Special Areas of Conservation (SACs)	n/a	None within 2km	n/a
Sites of Special Scientific Interest (SSSIs)	Mersey Estuary	30m S	1002150
RAMSAR Sites	Mersey Estuary	30m S	UK11041
Important Bird Areas	Mersey Estuary	30m S	960145
National Nature Reserves	n/a	None within 2km	n/a
Ancient Woodland	n/a	None within 2km	n/a

Information from the National Biodiversity Network (NBN) database indicates that there are no records of the following within 2km; bats, badger, great crested newt, reptiles and white-clawed crayfish. However, there are records of notable species in the wider area (>2km radius) as reported in Table 3.2 below.

Species	Scientific Name	Date	Distance
Badger	<i>Meles meles</i>	1965 (1 location)	8.7km E
Water Vole	<i>Arvicola terrestris</i>	1972 and 1981 (1 location)	8.1km NE
Water Vole	<i>Arvicola terrestris</i>	1972 and 1981 (1 location)	8.17km NE
Pipistrelle Bat	<i>Pipistrellus pipistrellus</i>	1961 (1 location)	9.7km E
Daubenton's Bat	<i>Myotis daubentonii</i>	1999 and 2001 (3 locations)	8km NE
Daubenton's Bat	<i>Myotis daubentonii</i>	1999 - 2003 (10 locations)	10km NE
Great Crested Newt	<i>Triturus cristatus</i>	1990 (2 locations)	3.9km S
Great Crested Newt	<i>Triturus cristatus</i>	1990 (1 locations)	3.4km SE
Great Crested Newt	<i>Triturus cristatus</i>	1990 (1 locations)	4.9km SE
Great Crested Newt	<i>Triturus cristatus</i>	1990 (1 locations)	4.2km SE

Species	Scientific Name	Date	Distance
Common Lizard	Zootoca vivipara	1990 (1 location)	2.3km S
Common Lizard	Zootoca vivipara	1986 (1 location)	3.5km S
White Clawed Crayfish	Austropotamobius pallipes	1993 (2 locations)	3.5km S
Merlin	Flaco columbarius	No Date provided (1 location)	5.0km NE

The publically available list of Tree Preservation Orders (TPOs) issued by the Planning Department of Halton Borough Council was reviewed in order to identify any existing TPOs issued to trees on-site. The search identified no records of TPOs having been issued to trees within the site.

A summary of relevant findings from the rECOrd biological recording centre response is given in Table 3.3 below:

Taxa Common Name	Taxa Scientific name	Location name	Date	Status
Arctic Skua	Stercorarius parasiticus	No Man's Land	1968	Biodiversity Action Plan Species
Barn Owl	Tyto alba	Halton	2001	Protected Species
Bewick's Swan	Cygnus columbianus	No Man's Land and Spike Island	1968 and 1990	Protected Species and Biodiversity Action Plan Species
Bluebell	Hyacinthoides non-scripta	Widnes, Ditton Brook, Spike Island, St.Mary's Church, West Bank, Widnes, Ditton Brook, St. Helen's Canal, Runcorn / Widnes Bridge	2001 and 2007	Protected Species
Brambling	Fringilla montifringilla	No Man's Land	1968	Protected Species
Bullfinch	Pyrrhula pyrrhula	Wet Dock and Spike Island	2002	Biodiversity Action Plan Species and CROW Act-section 74 Species
Cinnabar	Tyria jacobaeae	Mersey (Halton), Spike Island,		Biodiversity

Table 3.3 Species identified by the rECOrd information within 1km of site				
Taxa Common Name	Taxa Scientific name	Location name	Date	Status
		Sandy Cove, Widnes	1996 and 2007	Action Plan Species
Common Seal	<i>Phoca vitulina</i>	Widnes	2006	Biodiversity Action Plan Species
Common Toad	<i>Bufo bufo</i>	Spike Island	2007	Protected Species and Biodiversity Action Plan Species
Corn Bunting	<i>Miliaria calandra</i>	No Man's Land	1968	Biodiversity Action Plan Species CROW Act-section 74 Species
Curlew	<i>Numenius arquata</i>	Spike Island, St.Mary's Church, Runcorn Gap, Mersey (Halton), No Man's Land, Wet Dock, River Mersey, Astmoor	1993 - 2005	Biodiversity Action Plan Species
Dunnock	<i>Prunella modularis</i>	Spike Island, Wet Dock, St Helens Canal, Runcorn/Widnes Bridge, St Marys Church, Elf AtoChem site	1968, 2002-2007	Biodiversity Action Plan Species
Eel	<i>Anguilla anguilla</i>	Spike Island and St. Helen's Canal	1999 and 2005	Biodiversity Action Plan Species
Fieldfare	<i>Turdus pilaris</i>	St. Helen's Canal at Spike Island	1997 and 2005	Protected Species
Green Sandpiper	<i>Tringa ochropus</i>	Spike Island and Wet Dock	1997, 2002 and 2005	Protected Species
Greenshank	<i>Tringa nebularia</i>	Spike Island	1981, 1992 and	Protected Species

Table 3.3 Species identified by the rECOrd information within 1km of site				
Taxa Common Name	Taxa Scientific name	Location name	Date	Status
			1994	
Grey Partridge	<i>Perdix perdix</i>	Spike Island and No Man's Land	1968, 1986 and 1997	Biodiversity Action Plan Species and CRoW Act-section 74 Species
House Sparrow	<i>Passer domesticus</i>	Runcorn / Widnes Bridge, Spike Island, Wet Dock, St Marys Church, No Man's Land	1968, 2002, 2003, 2007	Biodiversity Action Plan Species
Kingfisher	<i>Alcedo atthis</i>	St. Helen's Canal (Disused)	2005	Protected Species
Lapwing	<i>Vanellus vanellus</i>	Spike Island, Runcorn Town, Wet Dock, Ditton Brook, River Mersey Astmoor, Runcorn Gap, St.Mary's Church	1968, 1990-2004	Biodiversity Action Plan Species
Linnet	<i>Carduelis cannabina</i>	Spike Island, St. Helen's Canal, Wet Dock, Upper Mersey Estuary (Penketh Reach), Runcorn / Widnes Bridge, No Man's Land	1968, 1992 - 2004	Biodiversity Action Plan Species and CRoW Act-section 74 Species
Merlin	<i>Falco columbarius</i>	St. Helen's Canal (Disused), Sandy Cove, Spike Island, No Man's Land	1968, 1990 and 2005	Protected Species
Pennyroyal	<i>Mentha pulegium</i>	St. Helen's Canal at Spike Island	2007	Protected Species, Biodiversity Action Plan Species, CRoW Act-section 74 Species
Peregrine	<i>Falco peregrinus</i>	Runcorn / Widnes Bridge, Elf AtoChem site, St. Helen's Canal, River Mersey Astmoor and Wet Dock	2002 - 2005	Protected Species
Pintail	<i>Anas acuta</i>	No Man's Land	1968 and	Protected Species

Table 3.3 Species identified by the rECOrd information within 1km of site				
Taxa Common Name	Taxa Scientific name	Location name	Date	Status
			1982	
Pipistrelle	<i>Pipistrellus pipistrellus</i>	Widnes	1989	Protected Species and CRow Act-section 74 Species
Redpoll	<i>Carduelis flammea</i>	Spike Island	1989 and 2002	Biodiversity Action Plan Species
Redwing	<i>Turdus iliacus</i>	Spike Island	1993, 1994, 1997 and 2005	Protected Species
Reed Bunting	<i>Emberiza schoeniclus</i>	St. Helen's Canal, Spike Island, No Man's Land, Wet Dock	1968, 1997, 2004-2005	Biodiversity Action Plan Species and CRow Act-section 74 Species
Shaded Broad-Bar	<i>Scotopteryx chenopodiata</i>	Spike Island	1997	Biodiversity Action Plan Species
Skylark	<i>Alauda arvensis</i>	South Lancashire, Spike Island, No Man's Land	1968, 1994, 2002 - 2004	Biodiversity Action Plan Species and CRow Act-section 74 Species
Snow Bunting	<i>Plectrophenax nivalis</i>	No Man's Land	1968	Protected Species
Song Thrush	<i>Turdus philomelos</i>	Spike Island, Wet Dock, St. Helen's Canal (Disused), St. Mary's Church, Widnes, No Man's Land	1968, 1994, 1997, 2002 - 2007	CRow Act-section 74 Species List
Spreading Hedge-Parsley	<i>Torilis arvensis</i>	Wet Dock	2007	Biodiversity Action Plan Species and

Table 3.3 Species identified by the rECOrd information within 1km of site				
Taxa Common Name	Taxa Scientific name	Location name	Date	Status
				CROW Act-section 74 Species List
Starling	<i>Sturnus vulgaris</i>	St.Mary's Church, St. Helen's Canal, Wet Dock, Upper Mersey Estuary (Penketh Reach), Spike Island, Runcorn / Widnes Bridge, No Man's Land, Sandy Cove and Mersey (Halton)	1968, 1997 - 1998, 2001 - 2007	Biodiversity Action Plan Species
Tree Sparrow	<i>Passer montanus</i>	No Man's Land	1968	Biodiversity Action Plan Species and CROW Act-section 74 Species List
Twite	<i>Carduelis flavirostris</i>	No Man's Land	1968	Biodiversity Action Plan Species
Wall Brown	<i>Lasiommata megera</i>	Ditton Widnes, Runcorn Hill, Spike Island	1994	Biodiversity Action Plan Species
Water Vole	<i>Arvicola terrestris</i>	Cuerdley -CP	2001	Protected Species, Biodiversity Action Plan Species and CROW Act-section 74 Species
Whimbrel	<i>Numenius phaeopus</i>	Spike Island	1992, 1993 and 1995	Protected Species
Yellowhammer	<i>Emberiza citrinella</i>	No Man's Land	1968	Biodiversity Action Plan Species

The Halton, and Cheshire Local Biodiversity Action Plans (LBAPs) have been reviewed to identify any locally important habitats or species which may be present at the site. With the exception of skylark (Halton BAP), and bats (Cheshire BAP) no other priority species or priority habitats within the Halton and

Cheshire LBAPs are thought to have the potential to be present or use the site. Skylark have been recorded within the vicinity of the site, though were not observed during site visits, there is habitat on-site with the potential to support skylark. Bats have been recorded in the vicinity of the site and there exists the potential for bats to be present at the site and to use the site for foraging.

The UK Biodiversity Action Plan (UKBAP) has been checked to identify any nationally important habitats or species which may be present at the site.

UK priority species which have been recorded in the vicinity of the site include, bats, skylark, house, sparrow, curlew, and lapwing.

In addition to the above, online information about Mersey Forest was reviewed from the Mersey Forest website and the Mersey Forest Plan. The Mersey Forest is the largest community forest in the UK with an area of 1204 km², the aim of community forests is to increase the amount of wooded land in the UK and provide enhanced biodiversity, environmental improvements and amenity resources for the public. The site is located within the Mersey Forest area and within the sub-area of Halton. The site is in close vicinity to the Mersey Forest H2 planning strategy area, this relates to derelict areas between the A562 and the River Mersey, the objective of the Mersey Forest in this area is to create a wooded edge to the river.

3.2 PHASE 1 HABITAT SURVEY

At the time of the survey, the site consisted of several main different habitat types which were mapped (see Annex A); however the majority of the site (c. 60%) was occupied by cleared ground of compacted brick rubble softstanding or hardstanding of concrete and asphalt. The major habitat types are described below and a full species list for each habitat type with DAFOR measure of abundance can be found in Annex C. Photographs of the site can be found in Annex D.

Bare Ground (Hardstanding)

The North-western Area of the site (separated from the main site by Desoto Road and the round-about north of the site) was observed to be predominately hardstanding of tarmac/adam/asphalt with a number of haulage vehicles parked in this area. In addition hardstanding is present in the western and central parts of the Western Area, again used as parking with no species present. A small areas in the west and south of the Northern Area of the site is also hardstanding and was being used as storage at the time of the survey.

Semi-Improved Grassland (North)

The Northern Area is characterized by semi-improved grassland with abundant Yorkshire fog (*Holcus lanatus*) and frequent tufted hair grass (*Deschampsia caespitosa*). In addition cocksfoot (*Dactylis glomerata*), timothy grass (*Phelum pratense*), false oat grass (*Arrhenatherum elatius*) and sheep's fescue (*Festuca ovina*) were identified. Within the grassland greater plantain (*Plantago major*), ribwort plantain (*Plantago lanceolata*), clover (*Trifolium arvense*), and vetch (*Vicia sativa*) were frequent with occasional bramble (*rubus fruct. agg.*), nettle (*Urtica dioica*), dock (*Rumex obtusifolius*), spear thistle (*Cirsium vulgare*), and rose-bay willowherb (*Epilobium angustifolium*). In the northern most area a number of small shrubs were present within the grass and included Broom (*Sarothamnus scoparius*), hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*). Around areas of former hardstanding

within the northern part of this area were frequent stonecrops (*Sedum* sp.) and mosses (unidentified). Further occasional and rare vascular plants were noted and are found within the full species list (Annex C). It was also noted that at the eastern edge of this area, adjacent to the boundary wall is a significant stand of Japanese Knotweed (*Fallopia japonica*) (Target Note TN1). A second smaller stand of knotweed is also present near the north-west of this area adjacent to the dividing fence (Target Note TN2).

Semi-Improved Grassland (South-West)

The South-Western Area (Sports Ground) was also semi-improved grassland, having developed from neglect of management. The area was characterized by abundant Yorkshire Fog and Rough Meadow Grass (*Poa trivialis*) with frequent Annual Meadow Grass (*Poa annua*). Other occasional grasses included Cocksfoot, False Oat Grass, and rarely observed was Soft Brome (*Bromus mollis*). Within the grassland was frequent clover, dandelion (*Taraxacum officinalis* agg.), vetch, common speedwell (*Veronica officinalis*) and occasional dock, spear thistle, nettle, and herb robert (*Geranium robertianum*). Ox-eye daisy (*Leucanthemum*), creeping buttercup, and ragwort were seen rarely. Additionally two spikes of Bee Orchid were observed in the central southern part of this area.

Bare Ground (Crushed Brick Rubble)

The majority of the central area of the site had formerly been a chemical works which has been demolished and crushed, the brick rubble has been spread across the site to level and re-grade the area. The brick rubble was in the majority of areas devoid of any flora, however on verges and adjacent to some areas of storage some ruderal and ephemeral species and grasses were present in small numbers. The most common of grasses were yorkshire fog and annual meadow grass, although tufted hair grass was present in a number of areas. Frequently seen in these opportunistic areas of growth was rose-bay willowherb, and plantain with occasional hawkweed (*Hieracium* sp.), vetch, dock, ox-eye daisy, spear thistle, bramble, bristly ox-tongue (*Picris echioides*) and mare's tail (*Hippuris vulgaris*). Occasionally a small elder (*Sambucus nigra*) tree or sapling was observed.

Tall Ruderal

The banks adjacent to Marsh Brook were characterized by tall ruderal species. Nettles, bracken (*Pteridium* sp.) and rose-bay willowherb were abundant with frequent bramble, and dock and occasional mugwort (*Artemisia vulgaris*), ivy (*Hedera helix*) and umbellifers (dead stems, unidentified). Occasional elder trees are present within the ruderal species.

A small area of Tall Ruderal habitat was also observed adjacent to the northern boundary of the Central Area of the site. This area was dominated by rose-bay willowherb with frequent nettle and bramble.

Ephemeral

The south-eastern, and eastern parts of the Central Area contained ephemeral habitats primarily along the edge of the bare ground and on top of mounds of crushed material and debris. These areas were characterized by a variety of low growing species with occasional taller grasses and ruderal species.

Clover was abundant as was vetch and herb robert. Occasional species included creeping buttercup, bramble, yarrow (*Achillea millefolium*), and silverweed (*Potentilla anserine*). Rarely observed were dove's foot cranesbill (*geranium molle*), poppy (*papaver rhoeas*), ragwort (*Senecio jacobaea*), umbellifer species (unidentified) and Weld (*Reseda luteola*). Grasses included Yorkshire fog. Tufted hair grass and annual meadow grass.

Running Water (Mesotrophic)

Marsh Brook runs in a general north-south direction in the west of the site. Access to the brook for close inspection was not available due to issues of health and safety. The brook has been canalised and is set within a concrete drainage channel which is in severe disrepair and only held in place by horizontal propping railway sleepers. The brook appeared to be relatively shallow but quite fast flowing in places. The water appeared cloudy and discoloured with much debris within the bottom of the channel and very little vegetation within the water itself. It is likely, given the industrial setting that the Brook has been affected by pollution incidents and contamination in the past. It is unlikely that the Brook has any significant aquatic ecology. It is known to have received chemical discharges during the operational life of the adjacent chemical industry.

Scrub

Scrub areas were found in the southern part of the Northern Area, the south-west and south of the Central Area and the north-east of the South-Western Area (Sports Ground). The dominant tree found within the scrub areas was Goat willow (*Salix caprea*)

Plantation Woodland

The trees around the edge of the South-Western Area (Sports Ground) are considered to be deciduous plantation woodland with abundant white willow (*Salix alba*) and white poplar (*Populus alba*) with occasional crack willow (*Salix fragilis*), it is also likely that some of the willow has hybridised. Many of the trees appeared to be semi-mature to mature and greater than 10-15m in height and are arranged in a relatively thin boundary to the former Sports Ground. The understory of this habitat is relatively sparse with only immature willow and poplar and occasional hawthorn and elder and very rarely a number of exotic shrubs, possibly garden/landscaping escapes from the nearby industrial units. The ground flora is dominated by nettle with frequent bramble, occasional herb robert, cleavers and dock.

3.3 FAUNA

Birds

Taxa Common name	Taxa Scientific name	Number sighted	Details
Blackbird	<i>Turdus merula</i>	5	2 (female) seen foraging in scrub in Sports Ground area. 1 Male alarm call

Table 3.3 Bird Species			
Taxa Common name	Taxa Scientific name	Number sighted	Details
			and flight in the north of site adjacent to scrub. 1 male seen flying over northern area west to east. 1 male seen on fence adjacent to Marsh Brook in west of site.
Black-Headed Gull	<i>Larus ridibundus</i>	9	Flying in no particular direction, sporadic circling over various areas on and off-site
Blue Tit	<i>Cyanistes caeruleus</i>	1	Single individual seen in scrub area adjacent to road in northern part of site.
Carrion Crow	<i>Corvus corone</i>	3	Various directions flying over site.
Chaffinch	<i>Fringilla coelebs</i>	2 seen, song also heard	Heard singing in sports ground area of site and in south-west area adjacent to Marsh Brook. 1 seen perched on tree within far south-east of sportground area. 1 seen in scrub in central west of site adjacent to Marsh Brook
Chiffchaff	<i>Phylloscopus collybita</i>	Heard, not sighted	Heard in sportsground scrub and trees and also in scrub in south-west of site.
Common Gull	<i>Larus canus canus</i>	1	Seen flying over site, south-west to north-east.
Goldfinch	<i>Carduelis carduelis</i>	3	Sighted perched on cable to south of Sports field area. 2 sighted in small trees/scrub adjacent to Marsh Brook in west of site.
Greenfinch	<i>Carduelis chloris</i>	3	2 seen in scrub in south-west of site. 1 seen at top of trees in Sports ground.
Herring Gull	<i>Larus argentatus</i>	2	Flying adjacent to site over Mersey Estuary to south.
House Martin	<i>Delichon urbicum</i>	Many	Foraging insects over grass in sports ground area.
House Sparrow	<i>Passer domesticus</i>	3	Seen in and around scrub area in south-west of site.
Lesser Black-backed Gull	<i>Larus fuscus</i>	2	Flying over south-western area of site towards Mersey.
Feral Pigeon	<i>Columbidae</i> sp.	Many	Seen flying from tree cover in sports ground. Seen flying over site south-east to north-east. Seen foraging on ground in centre of site.

Taxa Common name	Taxa Scientific name	Number sighted	Details
Pied Wagtail	Motacilla alba yarrellii	1	On ground in centre of site on hardstanding foraging.
Starling	Sturnus vulgaris	1	Dead starling found adjacent to road next to Marsh Brook, west of site.
Starling	Sturnus vulgaris	5	Seen flying adjacent to site south of sports ground area.
Willow Warbler	Phylloscopus trochilus	4	2 seen in scrub in south-west of site exhibiting breeding behaviour; alarm calls and attempts to distract away from scrub. 2 seen singing at top of trees in Sports Ground area.

Paul Andrews of ENVIRON re-visited the site on 2nd July to undertake a walkover survey in order to identify any breeding or nesting birds within the sports ground area (full details are within ENVIRON Letter Report L67-C13641_1_PA), during the walkover survey the following bird species were recorded; House Martin, Mistle Thrush, Wren, Blackbird, Greenfinch, House Sparrow, Lesser Black-backed Gull, Feral Pigeon, Carrion Crow, Goldfinch all sighted and Chiffchaff was identified by song. A single abandoned nest was identified in the north-eastern corner of the Sports Ground area within a paint tin in a tree.

No ground nesting birds were sighted or heard during either of the visits to the site.

The scrub areas of the site and the grassland area within the Sports Ground area in the south-west appear to support a number of passerines and other bird species. Willow warbler were seen to exhibit breeding behaviour in the scrub in the south-west of the site and an abandoned nest was found in the north-east of the Sports Ground area, however no other observations of breeding behaviour or evidence of nesting was noted.

Mammals

A number of small burrows and depressions were observed in scrub adjacent to the east of the northern grassland area. These depressions and burrows were considered to be from rabbit (*Oryctolagus cuniculus*) although no rabbits were sighted during the survey.

The majority of the central area of the site has been cleared and is used to store roofing insulation, as such there is limited vegetation available and it is unfavourable for most terrestrial mammals. The northern area of grassland, the scrub areas at the site and the grassland in the Sports Ground area could support small mammals such as voles and mice although none were seen.

No field signs of badger, dung pits, snuffle holes, wide runs, hair or badger setts were observed at the site indicating that there is unlikely to be badger present at the site.

The site has been cleared and as such there are no buildings present at the site to support bat roosts. The adjacent industrial units and the brick viaduct arches do have the potential to support roosting bats however these were not closely inspected during the survey and are off-site features. There are a number of large trees, mainly White Willow, Crack Willow, and White Poplar surrounding the Sports ground area of the site, a number of these trees are greater than 10m in height and are considered to be relatively mature. These larger trees may have the possibility to support roosting bats within holes and cracks in the tree or under bark which may have lifted from the trunk.

The site was observed to have an abundance of flies, micromoths and small flying beetles in the northern grassland area and in the sports field area. As such the site provides adequate potential for foraging habitat for bats.

Invertebrates

The scope of the Phase 1 habitat survey did not include the provision of an invertebrate survey, however where possible invertebrates were recorded. Invertebrates observed included; Woodlouse (*Oniscus asellus*), Pillbug/Pill woodlouse (*Armadillium vulgare*), a number of Ladybirds (*Coccinella* sp.), Small Black Ant (*Lasius niger*), Honey bee (*Apis* sp.), bumblebee (*Bombus* sp.), centipede (*Lithobius forficatus*), Cinnabar Moth (*Tyria jacobaeae*), slugs (unidentified), snails (*Helix aspersa*) and a large skipper butterfly (*Ochlodes sylvanus*). In addition unidentified invertebrates included, a flying beetle, beetle larvae, aphids, a number of micromoths, a number of hoverfly, a number of flies (diptera), and a number of spiders.

The variety of habitats at the site including grassland, scrub, trees, brick rubble and piles of material provide potential habitat for invertebrates.

Reptiles

No reptiles were observed during the survey. The site has a number of habitats present including, crushed brick, piles of construction materials, scrub, planted trees, grassland and ruderal areas. The variety of habitats and availability of refugia (including stacked pallets and insulation) is considered to be good potential habitat to support reptiles in particular common lizard. It is considered very unlikely that Sand Lizard (a Wirral/Cheshire LBAP species which is present in a limited number of areas of North Wales and locations near to Liverpool) is present at the site due to the lack of the optimal sand dune habitat it requires. Given the habitats present at the site and that the nearest record of common lizard was recorded in 1990 2.3km south of the site (beyond the Mersey) there exists the potential for reptiles to be present at the site although any significant presence is unlikely. The site is also regularly trafficked by fork lifts and heavy good vehicles which will limit the suitability of the site as habitat.

Amphibians

No evidence of amphibian presence or use of the site was observed during the survey. No significant ponds or pools were observed at the site during the survey and Marsh Brook to the west of the site appeared to be unsuitable for amphibian use due to it likely being contaminated, the steep concrete channel and the relative lack of aquatic vegetation.

Amphibians can spend some of the year on land or underground in damp areas. It is considered unlikely that amphibians use the site in this way due to the lack of substantial ponds or features which may support amphibians in the vicinity of the site. In addition there are no records of amphibians reported within 1km of the site, the nearest record of amphibians available is from the NBN Gateway records and is for Great Crested Newt approximately 3.4km south-east of the site, beyond the River Mersey.

4 EVALUATION AND CONCLUSIONS

4.1 ECOLOGICAL EVALUATION

An assessment of the ecological value of the site has been made using the Ratcliffe (1977) criteria in Table 4.1 below.

Table 4.1 Ecological Evaluation	
Criterion	Assessment
Size or Extent	Large: the site occupies a relatively large area (19.5ha) however the majority of the site is occupied by crushed brick rubble (softstanding).
Diversity	Low to Intermediate: A number of different species of flora are present at the site however there are large areas of the site which are devoid of flora.
Naturalness	Low – Intermediate: the site has been significantly affected by the former presence of industrial activity at the site, however there area areas (the northern grassland and the Sports Ground) which are starting to become more natural and can be considered to be Semi-Improved after some time without management.
Rare or Exceptional features	Intermediate: The majority of flora on the site are common grassland, ruderal and ephemeral species which are not considered to be rare or exceptional. Two spikes of Bee Orchid were present in the Sports Ground grassland area, while not a rare species or a species with special protection it represents a notable species considering the semi-improved nature of the habitat. A number of notable bird species were observed at the site including House Sparrow and Starling (Red List) and Willow Warbler (Amber List) There exists the potential for reptiles and bats to be present at or use the site.
Fragility	Low: the habitats present on site are relatively common habitat types especially for brownfield areas. The habitats present on site are not considered to be particularly fragile or sensitive to change.
Typicalness	Low - Intermediate: the majority of habitats at the site have been improved or created. Typical natural habitats for the wider area would be considered to be lowland grassland, salt marsh and mud flats and mixed deciduous woodland. As such the site is not particularly typical of the local area but some limited areas of the site are modified representations of typical habitats e.g. semi-improved grassland and plantation woodland.
Recorded history and cultural associations	None known.
Connectivity within the landscape	Low: the site is surrounded by roads and industrial/built environment. The Mersey Way is adjacent to the south of the site which provides some limited connection of habitat through route side planting although this is considered to be fragmentary and limited in nature.

Intrinsic appeal	Low - Intermediate: The site has little intrinsic appeal in terms of education resource due to being privately owned and the lack of amenity features. The site has some potential for conservation although the habitats present are not considered to be unique, rare or of exceptional nature. The site has no other features which would provide intrinsic appeal.
Potential value for nature conservation	Low to Intermediate: Site is relatively large but around 60% is bare ground limited in habitat potential or species diversity. The grassland areas in the north and south-west are of greater value and have a reasonable diversity of species however these grasslands are semi-improved and contain only common species of lesser conservation concern. There are features at the site including large trees which have some conservation interest, however, again these are planted and White Poplar is an introduced species of lesser conservation concern. There is the potential for bats to be present at the site.

4.2 CONCLUSIONS

The site is relatively large in size, though comprises predominately of bare ground of crushed brick rubble covered by stored insulation. The semi-improved grassland area in the Northern Area and South-Western Area have some limited interest for conservation but comprises mainly common species. There are a number of large trees which have the potential for roosting bats and have some conservation value in themselves, however again these are planted and in the case of White Poplar an introduced species. The Marsh Brook in the west of the site appears to be poor quality and potentially contaminated. Passerines and other birds are common at the site though there was little evidence of breeding or nesting at the site. The site is not considered to be of sufficient quality to be locally important to conservation (e.g. SLINC status); however it does have some features which may be locally important. Overall the site is considered to be of **low to intermediate** value to conservation.

The proposed development of the site will likely cause the loss of some of the site area and habitats to buildings, infrastructure and hardstanding. Where possible this should aim to be limited to those areas currently covered by bare ground. Where possible the large trees should be retained and where possible grassland should be retained.

Under the guidelines provided in Planning Policy Statement 9: Biodiversity and Geological Conservation, biodiversity should be a consideration in the planning process and as such should be considered within the design of a new development. Where loss of habitat and/or trees cannot be avoided the developer should aim to provide some measure of mitigation or compensation for the loss.

It would be prudent to conduct a bat survey and reptile survey at the site prior to any development commencing in order to identify whether these species may be present at or using the site.

It is noted that there are plans to substantially upgrade Marsh Brook to form a substantial aquatic channel with associated habitat.

Annex A: Figures

Figure 1 Location Plan

Annex A: Figures

Figure 2 Site Layout

Annex A: Figures

Figure 3 Habitat Map

Annex B: Target Notes

TARGET NOTES

TN1: Japanese Knotweed, adjacent to boundary wall, well established, approximately 1.5-2m tall

TN2: Japanese Knotweed, adjacent to fence, approximately 1.5-2m tall

TN3: Pile of railway sleepers, potential refugia for reptiles (no reptiles observed)

TN4: Plantation woodland, boundary planting of willow and poplar around Sports Ground Area potential for bat roosts and to support nesting birds.

Annex C: Plant Species

Table C1 Plant Species: Semi-improved Grassland (North)

Species	Common Name	Abundance	Notes
<i>Dactylis glomerata</i>	Cocksfoot	O	
<i>Arrhenatherum elatius</i>	False Oat Grass	O	
<i>Deschampsia caespitosa</i>	Tufted Hair Grass	F	
<i>Phelum pretense</i>	Timothy Grass	O	
<i>Holus lanatus</i>	Yorkshire Fog	A	
<i>Festuca ovina</i>	Sheep's Fescue	O	
<i>Trifolium arvense</i>	Clover	F	
<i>Cirsium vulgare</i>	Spear thistle	O	
<i>Plantago lanceolata</i>	Ribwort plantain	F	
<i>Urtica Dioica</i>	Nettle	O	
<i>Vica sativa</i>	Common Vetch	F	
<i>Rubus fruticosus</i> agg.	Bramble	O	
<i>Plantago major</i>	Greater Plantain	F	
<i>Epibolium angustifolium</i>	Rose-bay Willowherb	O	
<i>Sedum</i> spp	Stonecrop species	F	
<i>Sarothamnus scoparius</i>	Broom	R	
<i>Crataegus monogyna</i>	Hawthorn	O	
<i>Sambucus nigra</i>	Elder	R	
<i>Fallopia japonica</i>	Japanese Knotweed	R	Invasive species
<i>Achillea millefolium</i>	Yarrow	R	
<i>Hippuris</i> spp	Mares Tail	R	
<i>Potentilla erecta</i>	Tormentil	R	
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C2 Plant Species: Semi-improved Grassland (South-West)

Species	Common Name	Abundance	Notes
<i>Holus lanatus</i>	Yorkshire fog	A	

<i>Poa trivialis</i>	Rough Meadow Grass	A	
<i>Poa annua</i>	Annual Meadow Grass	F	
<i>Arrhenatherum elatius</i>	False Oat Grass	O	
<i>Dactylis glomerata</i>	Cocksfoot	O	
<i>Bromus molis</i>	Soft Brome	R	
<i>Trifolium arvense</i>	Clover	F	
<i>Taraxacum officinalis</i> agg.	Dandelion	F	
<i>Vicia sativa</i>	Common Vetch	F	
<i>Veronica officinalis</i>	Common Speedwell	F	
<i>Rumex obtusifolius</i>	Dock	O	
<i>Cirsium vulgare</i>	Spear Thistle	O	
<i>Urtica dioica</i>	Nettle	O	
<i>Geranium robertianum</i>	Herb Robert	O	
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	R	
<i>Ranunculus repens</i>	Creeping Buttercup	R	
<i>Senecio jacobea</i>	Ragwort	R	
<i>Ophrys apifera</i>	Bee Orchid	R	Notable species
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C3 Plant Species: Bare Ground (Crushed Brick Rubble)

Species	Common Name	Abundance	Notes
<i>Holcus lanatus</i>	Yorkshire Fog	A	
<i>Poa annua</i>	Annual Meadow Grass	A	
<i>Epibolium angustifolium</i>	Rose-bay Willowherb	F	
<i>Plantago lanceolata</i>	Ribwort Plantain	F	
<i>Hieracium</i> sp.	Hawkweed	O	
<i>Vicia sativa</i>	Common Vetch	O	
<i>Rumex obtusifolius</i>	Dock	O	
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	O	

<i>Cirsium vulgare</i>	Spear Thistle	O	
<i>Rubus fruticosus</i> agg.	Bramble	O	
<i>Picris echioides</i>	Bristly Ox-tongue	O	
<i>Hippuris vulgaris</i>	Mare's Tail	O	
<i>Sambucus nigra</i>	Elder	O	Small trees or saplings
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C4 Plant Species: Tall Ruderal			
Species	Common Name	Abundance	Notes
<i>Acer pseudoplatanus</i>	Sycamore	R	Saplings
<i>Urtica dioica</i>	Nettle	A	
<i>Pteridium</i> spp	Bracken	A	
<i>Epilobium angustifolium</i>	Rose-bay Willowherb	A	
<i>Rubus fruticosus</i> agg.	Bramble	F	
<i>Rumex obtusifolius</i>	Dock	F	
<i>Artemisia vulgaris</i>	Mugwort	O	
<i>Hedera helix</i>	Ivy	O	
Unidentified	Umbellifer species	O	
<i>Sambucus nigra</i>	Elder	O	Small trees and saplings
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C5 Plant Species: Ephemeral			
Species	Common Name	Abundance	Notes
<i>Trifolium arvense</i>	Clover	A	
<i>Urtica dioica</i>	Nettle	R	
<i>Epilobium angustifolium</i>	Rose-bay Willowherb	O	
<i>Rubus fruticosus</i> agg.	Bramble	O	
<i>Vicia Sativa</i>	Common Vetch	A	
<i>Geranium robertianum</i>	Herb Robert	A	
<i>Ranunculus repens</i>	Creeping Buttercup	O	

<i>Achillea millefolium</i>	Yarrow	O	
<i>Potentilla anserine</i>	Silverweed	O	
<i>Geranium molle</i>	Dove's Foot Cranesbill	R	
<i>Papaver rhoeas</i>	Common Poppy	R	
<i>Senecio jacobea</i>	Ragwort	O	
Unidentified	Umbellifer species	R	
<i>Reseda luteola</i>	Weld	R	
<i>Holus lanatus</i>	Yorkshire Fog	F	
<i>Deschampsia caespitosa</i>	Tufted Hair Grass	O	
<i>Poa annua</i>	Annual Meadow Grass	F	
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C6 Plant Species: Scrub			
Species	Common Name	Abundance	Notes
<i>Salix caprea</i>	Goat Willow	A	
<i>Crataegus monogyna</i>	Hawthorn	O	
<i>Sambucus nigra</i>	Elder	O	
<i>Rubus fruticosus</i> agg.	Bramble	A	
<i>Urtica dioica</i>	Nettle	A	
<i>Geranium robertianum</i>	Herb Robert	O	
<i>Galium aparine</i>	Cleavers	F	
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Table C7 Plant Species: Plantation Woodland			
Species	Common Name	Abundance	Notes
<i>Salix alba</i>	White Willow	A	
<i>Populus alba</i>	White Poplar	A	
<i>Salix fragilis</i>	Crack Willow	O	
<i>Sambucus nigra</i>	Elder	O	

Crataegus monogyna	Hawthorn	O	
Prunus padus	Bird Cherry	R	
Unidentified	Extotic shrubs	R	
Geranium robertianum	Herb Robert	O	
Galium aparine	Cleavers	O	
Urtica dioica	Nettle	D	Dominant ground flora
Rubus fruticosus agg.	Bramble	F	
Rumex obtusifolius	Dock	O	
Rosa canina	Dog rose	R	
DAFOR Scale: D = Dominant A = Abundant F = Frequent O = Occasional R = Rare			

Annex D: Selected Photographs

Annex E: Legislation, Policies and Plans

NATIONAL LEGISLATION AND POLICY

The Wildlife and Countryside Act, 1981

The *Wildlife and Countryside Act, 1981* (as amended) (WCA) established a statutory framework for the protection of wildlife. Schedules to the WCA list animal and plant species that are protected and set out the extent and conditions of protection afforded. The WCA also provides for the designation of Sites of Special Scientific Interest (SSSI), which are selected as the best national examples of habitat types, sites with notable species and sites of geological importance.

The Conservation (Natural Habitats) Regulations, 1994

The *Conservation (Natural Habitats) Regulations, 1994* require that rare European Protected Species are disturbed or relocated only under license. It also provides a mechanism for designating sites of European importance for biodiversity as Special Areas of Conservation.

The Countryside and Rights of Way Act, 2000

The *Countryside and Rights of Way Act, 2000* strengthened the sanctions of the WCA by creating offences of harming protected wildlife through reckless acts.

Hedgerow Regulations 1997

Important Hedgerows are defined in the *Hedgerow Regulations 1997* as hedges over 20 m, over 30 years old, and meeting criteria related to species composition, archaeology and features e.g. ditches. Hedgerows within, or bordering, domestic gardens are excluded. Important Hedgerows are protected through a system of notification that controls their removal. The removal of any hedgerow to which the Regulations apply is permitted if it is required for carrying out development for which planning permission has been granted.

Planning Policy Statement 9: Biodiversity and Geological Conservation, 2005

Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation, 2005 outlines the nature conservation designations applied to sites and species and their habitats. It emphasises the need to conserve, enhance and restore biological diversity. Specifically, it declares the principles that:

- planning decisions should aim to maintain and enhance, restore or add to biodiversity and geological conservation interests; and
- planning decisions should be based on up to date information about the environmental characteristics of their areas. These characteristics should include the relevant biodiversity and geological resource of the area.

REGIONAL POLICY

The North West Plan (North West Regional Spatial Strategy)

The North West Plan is planned to be published in full in spring 2008. The draft version of the Plan was submitted in January 2006 and since there has been a period of public consultation and review.

The draft North West Plan includes an overview of the Regional Spatial Strategy for Environmental Protection and Enhancement and states:

The Plan will ensure that sound environmental management is delivered across the North West, by:

- Requiring protection and enhancement of the most significant biodiversity, landscape, heritage and woodlands assets, as well as more sustainable approaches to land remediation;

- Promoting a more integrated approach to delivering a better environment through land and water management, including better relationship of new development to water resources, flood risk and adaptation to the impacts of climate change;
- As part of this, developing approaches for delivering green infrastructure as an implementation priority – creating multifunctional networks of green spaces which are important not only in terms of environmental quality, but also in providing recreation, in improving health, adapting to changing climate as well as other social and economic benefits.
- Continuing to develop strategic frameworks for, and to implement, Regional Parks in three broad locations – the North West Coast, Mersey Basin, and East Lancashire;
- Ensuring that the coast, as an important but complex set of ecological and human systems, is properly managed.

LOCAL POLICY

Halton Unitary Development Plan, 2005

The *Halton Unitary Development Plan, Adopted April 2005* (UDP) sets out the local planning policy relevant to the Halton area.

Chapter 3 of the UDP is devoted to The Green Environment and includes a core strategic policy and eleven supporting policies with specific objectives. Additional policies which are relevant to ecology and biodiversity are also provided within other sections of the plan. The most relevant policies to this assessment have been summarized below:

Policy GE10: Protection of Linkages in Greenspace Systems – to protect the existing linkages of greenspace in Halton.

Policy GE11: Protection of Incidental Greenspace – Where incidental greenspace is considered to provide sufficient amenity value the Council will aim to retain and protect the greenspace.

Policy GE18: Protection of Sites of National Importance for Nature Conservation – The Council aims to provide protection for Sites of Special Scientific Interest

Policy GE19: Protection of Sites of Importance for Nature Conservation – The Council aims to provide protection for Sites of Importance for Nature Conservation

Policy GE20: Protection and Creation of Local Nature Reserves – The Council aims to provide protection for Sites Local Nature Reserves

Policy GE21: Species Protection - The Council aims to provide protection for nationally and internationally protected species and their habitat. Where protected species may be present appropriate surveys should be carried out. Where development is approved the Council will protect species through planning obligations.

Policy GE27: Protection of Trees and Woodlands – The Council aims to provide protection to trees with Tree Preservation Orders, trees within conservation areas and woodlands which meet certain criteria. Wherever practical the design and layout of a development should make provision for the retention of all protected trees and woodland. If removal of trees are permitted as part of a development replacement planting will be recommended.

Policy GE30: The Mersey Coastal Zone – Developments within the Mersey Coastal Zone should take the coastal location into consideration. Developments which would contribute to regeneration, and/or to the enhancement of environmental quality, tourism and recreation will be encouraged.

Halton Natural Assets Strategy 2007-2012

The Halton Natural Assets Strategy provided additional policy on natural and environmental features of conservation interest. The following policies are relevant to this review:

Policy 1: The Council recognises the important contribution made by trees and woodlands to the environment and is committed to the responsible and sustainable custodianship of this resource on any land which it owns or influences.

Policy 2: The Council will seek, through the development control process, to retain and protect trees of high amenity value, to replace any trees which are unavoidably lost, and overall to increase the number and quality of trees in the Borough.

Policy 5: The Council will seek through its own actions, and in partnership with others, to establish new trees and woodlands in appropriate locations.

Policy 6: The Council will identify and protect the most valuable wildlife resources in Halton.

Policy 9: The Council will promote suitable new initiatives and projects to further Halton's biodiversity resource.

BIODIVERSITY ACTION PLANS

In 1994, the Government produced the UK Biodiversity Action Plan (BAP), a national strategy for the conservation of biodiversity. This led to the creation of the UK Biodiversity Steering Group, which has published 391 Species Action Plans (SAPs) and 45 Habitat Action Plans (HAPs). Regional and District/Borough BAPs apply the UK BAP at a local level.

The Halton BAP and the Cheshire BAP are the Local Biodiversity Action Plans (LBAPs) relevant to the site. They include recommendations and measures to monitor and enhance Priority Habitats for the benefit of Priority Species and wildlife in general.