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CARCRAFT AND HOME BARGAINS SITE, LIVERPOOL

Ecological Assessment

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ecology solutions for planners and developers

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1. INTRODUCTION

1.1. Background and Proposals

1.1.1. Ecology Solutions was instructed by Quod on behalf of T.J. Morris in November 2015 to undertake an ecological assessment of the Carcraft and Home Bargains site, Liverpool (see Plan ECO1), hereafter referred to as the site.

1.1.2. The proposals for the site comprise the conversion of the existing Home Bargains training centre to offices and the redevelopment of the Carcraft site into a new training centre and retail units with associated infrastructure and service areas.

1.2. Site Characteristics

1.2.1. The site is located on the eastern outskirts of Liverpool. The A580 East Lancashire Road lies just outside the southern boundary of the site with the urban settlement of Gilmoss beyond. Croxteth Brook / Knowsley Brook lies just outside the eastern boundary of the site, with a large field of semi-improved grassland beyond. Existing industrial development is present to the immediate north and west of the site.

1.2.2. The site largely comprises built form, associated hardstanding and limited areas of amenity planting and grassland.

1.3. Ecological Assessment

1.3.1. This document assesses the ecological interest of the site. The importance of the habitats within the site are evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)[1].

1.3.2. Where necessary, mitigation measures are recommended so as to safeguard any significant existing ecological interest within the site and, where appropriate, potential enhancement measures are put forward and reference made to both national and local biodiversity priorities.

[1] Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* (version 7 July 2006). http://www.cieem.net/ecia-guidelines-terrestrial-freshwater-and-coastal-

2. SURVEY METHODOLOGY

2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

2.2. Desk Study

2.2.1. In order to compile background information on the site and the surrounding area, Ecology Solutions contacted Merseyside BioBank (MBB).

2.2.2. Further information on designated sites from a wider search area was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)[2] database, which uses information held by Natural England and other organisations. This information is reproduced at Appendix 1, and where appropriate on Plan ECO1.

2.3. Habitat Survey Methodology

2.3.1. Habitat surveys were carried out by Ecology Solutions in December 2015 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species.

2.3.2. The site was surveyed based around extended Phase 1 survey methodology[3], as recommended by Natural England, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.

2.3.3. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.

2.3.4. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent in different seasons. Nonetheless, given the habitats present it is considered an accurate and robust assessment has been made of the botanical interest.

2.4. Faunal Survey

2.4.1. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the site by protected species, priority species, or other notable species.

2.4.2. In addition, specific surveys were undertaken in respect of bats and Water Voles *Arvicola amphibius* by an experienced bat and Water Vole surveyor.

[2] http://www.magic.gov.uk
[3] Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.

Bats

2.4.3. All buildings within the site were subject to an initial appraisal of their potential to support roosting bats.

2.4.4. The probability of a building being used by bats as a summer roost site increases if it:

- is largely undisturbed;
- dates from pre-20th Century;
- has a large roof void with unobstructed flying spaces;
- has access points for bats (though not too draughty);
- has wooden cladding or hanging tiles; and/or
- is in a rural setting and close to woodland or water.

2.4.5. Conversely, the probability decreases if a building is of a modern or pre-fabricated design/construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.

2.4.6. Field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004[4]), the Joint Nature Conservation Committee (2004[5]) and the Bat Conservation Trust (2012[6]).

2.4.7. All buildings within the site were surveyed externally to check for bats or evidence of use by bats in December 2015. The survey work was undertaken using (where necessary) a torch, endoscope, mirrors and binoculars.

2.4.8. Evidence of the presence of bats was searched for, with particular attention paid to the roofs. A specific search was made for bat droppings, which can indicate present or past use by bats and extent of use, as well as other signs indicative of the possible presence of bats e.g. feeding remains, presence of stained areas or areas that were conspicuously cobweb-free.

2.4.9. All trees within the site were assessed for their potential to support roosting bats. Features typically favoured by bats or evidence of past use by bats were searched for including:

- Obvious holes, e.g. rot holes and old Woodpecker holes;
- Dark staining on the tree, below the hole;
- Tiny scratch marks around a hole from bats' claws;
- Cavities, splits and or loose bark from broken or fallen branches, lightning strikes etc.; and
- Very dense covering of mature Ivy over trunk.

2.4.10. In addition, the site was appraised in terms of its likely value for both foraging and commuting bats.

[4] Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.
[5] Mitchell-Jones, A. J. & McLeish, A. P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.
[6] Hundt, L. (2012). *Bat Surveys – Good Practice Guidelines*. 2nd Edition. Bat Conservation Trust, London.

Water Voles

2.4.11. Croxteth Brook / Knowsley Brook and its banks in the immediate vicinity of the site were subject to an initial appraisal of their suitability for Water Voles.

3. ECOLOGICAL FEATURES

3.1. A habitat survey was originally undertaken across the site by Ecology Solutions in December 2015.

3.2. The following main habitat / vegetation types were identified within the site during the survey undertaken:

- Buildings;
- Hardstanding;
- Amenity Planting;
- Amenity Grassland;
- Hedgerows;
- Semi-improved Grassland;
- Pond;
- Scrub; and
- Trees.

3.3. The location of these habitats is shown on Plan ECO2, and described individually below.

3.4. Buildings

3.4.1. There are four buildings on site: three within the Carcraft site in the east of the wider site, and one in the Home Bargains site in the west.

3.4.2. Building B1 (see Photographs 1 and 2) is the disused Carcraft showroom and office complex. The building is of glass and steel construction, with a low gradient triple-pitched roof. Access is via metal roller-shutter doors, conventional metal doors, and sliding doors under convex metal canopies. The former office areas of the building are split over three storeys in the east of the building, whilst the former showroom occupies a single triple-height storey in the west. Two single-storey extension of metal-clad breeze-block construction is present on the east of the main building. These are partly empty and partly house miscellaneous items. Building B1 is generally in a good state of repair, although some of the doors to the extensions have been broken through.

3.4.3. Building B2 is a single-storey metal-built electricity substation with a metal fascia board. Building B2 is in a good state of repair.

3.4.4. Building B3 is a brick-built security lodge with metal-framed windows and a flat metal roof with a metal fascia board. The building is largely in a good state of repair with the exception of the fascia board, which is damaged and in places completely torn away to reveal a metal frame covered with insulation foam (see Photograph 3).

3.4.5. Building B4, the Home Bargains training centre and discount store, is a building of metal construction with two storeys, three storeys and one double height storey present in different areas. The building has a flat roof with a projecting metal canopy, is in active use and is in a good state of repair. A metal cage for the storage of garden products forms a single storey extension to the east of the main section of the building.

3.4.6. Two open-fronted / open-sided smoking shelters, comprising plastic panels on a metal frame, are present adjacent to building B1, and a similar structure acting as a shopping trolley shelter is present to the north-east of building B4.

3.5. **Hardstanding**

3.5.1. Access to the Carcraft plot is via a driveway along the northern boundary of the plot. The majority of the Carcraft site is occupied by a bituminous macadam car parking area edged with kerbstones (see Photograph 1). Small areas of composite hardstanding form road islands at regular intervals throughout the car park, whilst lamp posts, water service outlets, bins, pallets, old gas canisters and two temporary security lodge units are also present. Species colonising the area include Dandelion *Taraxacum* spp., Rosebay Willowherb *Chamerion angustifolium*, Canadian Fleabane *Conyza canadensis*, Creeping Thistle *Cirsium arvense*, Yorkshire Fog *Holcus lanatus*, Common Chickweed *Stellaria media*, Rough Hawkbit *Leontodon hispidus*, Ragwort *Senecio jacobaea*, Oxford Ragwort *Senecio squalidus*, Cotoneaster *Cotoneaster* sp. and Dogwood *Cornus sanguinea*.

3.5.2. A service yard comprising bituminous macadam and concrete is present on the eastern side of building B1. The yard contains occasional gas meter modules.

3.5.3. Much of the Home Bargains site comprises car parking with associated areas of paving, whilst an area of pebble landscaping is also present to the south of building B4.

3.6. **Amenity Planting**

3.6.1. A bed of planted amenity shrubs and trees is present along the access drive in the north of the Carcraft site and also extends alongside Portal Way on the western edge of the plot and the A580 on the southern edge. In the west of the plot, the bed is still managed regularly (as it was until recently in the north) but is also subject to extensive littering with drinks cans, bottles and plastic bags. Norway Maple *Acer platanoides* and Ash *Fraxinus excelsior* trees are present up to a height of 5 m tall, as are smaller Hawthorn *Crataegus monogyna* individuals. Other species present include Yorkshire Fog, Cocksfoot *Dactylis glomerata*, Cotoneaster, Thunberg's Barberry *Berberis thunbergii*, Dog Rose *Rosa canina*, Rosebay Willowherb, Creeping Thistle, Smooth Sow-thistle *Sonchus oleraceus*, Colt's-foot *Tussilago farfara*, Rough Hawkbit, Oxford Ragwort, Red Clover Trifolium pratense, Cleavers *Galium aparine* and Common Nettle *Urtica dioica*.

3.6.2. Small beds of planted amenity species are present towards the edges of the Home Bargains plot. Species present include Ash trees to a height of 4 m, Hawthorn seedlings, Cotoneaster, Dogwood, Dog Rose, Cherry Laurel *Prunus laurocerasus*, Geranium *Geranium* sp., Rush *Juncus* sp., Bramble *Rubus fruticosus*, Dandelion, Colt's-foot and Periwinkle *Vinca* sp.

3.7. **Amenity Grassland**

3.7.1. A regularly-mown amenity lawn runs along a section of Portal Way on the western edge of the Carcraft plot. The sward is up to 15cm tall and is dominated by amenity grass species. Other species present include Red Clover, Broad-leaved Dock *Rumex obtusifolius* and Dove's-foot Cranesbill *Geranium molle*.

3.7.2. Small areas of amenity grassland also form part of the Home Bargains plot. These areas are dominated by amenity grass species and are mown to below 5 cm. The amenity grassland at the western end of the site is mossy, whilst that in the south of the plot contains a picnic seating area. Species present include Geranium, Red Clover, Broad-leaved Dock and Daisy *Bellis perennis*.

3.8. **Hedgerows**

3.8.1. Hedgerow H1 runs along the site's south-western boundary, also extending along the western edge of the Home Bargains car park. Hedgerow H1 is a well-managed amenity hedgerow between approximately 1.7 m and 2 m tall, and comprises Cherry Laurel with a ground layer of Ivy *Hedera helix.*

3.8.2. Hedgerows H2 and H3 are managed Cherry Laurel hedgerows similar to hedgerow H1 but shorter and rising to only 1 m tall. A ground layer of Geranium is present below hedgerow H2, whilst species present in hedgerow H3's ground flora include Dandelion and Oxford Ragwort. Both hedgerows also contain Ash trees approximately 4 m tall, spaced at regular intervals.

3.9. **Semi-improved Grassland**

3.9.1. A strip of rough semi-improved grassland is present in to the south of building B1. The sward is approximately 40 cm tall, tussocky, and contains litter such as traffic cones and used petrol cans. Species present include Yorkshire Fog, Dogwood, Bramble, Rosebay Willowherb, Creeping Thistle, Broad-leaved Dock, Dandelion, Ragwort, Common Mouse-ear *Cerastium fontanum*, Canadian Fleabane, Red Clover, Yarrow *Achillea millefolium* and Common Nettle.

3.9.2. An area of rough semi-improved grassland is present in the east of the site between Croxteth Brook / Knowsley Brook and the Carcraft service yard (see Photograph 2). The sward is tussocky, approximately 30 cm tall alongside the service yard and approximately 60 cm tall on the bank of the brook, and contains species including Yorkshire Fog, Bent Grass *Agrostis* sp., Common Reed *Phragmites australis*, Ash trees to 4 m tall, Thunberg's Barberry, Dog Rose, Rosebay Willowherb, Red Clover, Dandelion, Rough Hawkbit, Smooth Sow-thistle, Cow Parsley *Anthriscus sylvestris*, Dove's-foot Cranesbill, Ragwort, Bramble, Ribwort Plantain *Plantago lanceolata*, Vetch *Vicia* sp. and Common Nettle.

3.9.3. A similar area of grassland is present to the north and east of the Carcraft car park. The sward is tussocky, approximately 40 cm tall (although shorter than this in most of its linear northern section) and is dominated by

Yorkshire Fog, Bent Grass and Cock's-foot. Other species present include Thunberg's Barberry, Dog Rose, Rosebay Willowherb, Red Clover, Dandelion, Rough Hawkbit, Smooth Sow-thistle, Common Mouse-ear, Dove's-foot Cranesbill, Ragwort, Bramble, Ribwort Plantain, Common Nettle, Ash and seedlings of Hazel *Corylus avellana* and Silver Birch *Betula pendula*.

3.10. **Pond**

3.10.1. Pond P1 is a relatively small pond, most of which falls within the site boundary in the south-eastern corner of the site (see Plan ECO2 and Photograph 4). The pond is dominated by Common Reed, with vegetation covering approximately 80% of the pond's surface. Crack Willow *Salix fragilis*, Greater Reedmace *Typha latifolia* and Rushes *Juncus* spp. are also present, and the pond is shaded by scrub around approximately 70% of its perimeter. The water is relatively clear, but fly-tipping of items such as a refrigerator and a traffic cone is evident. The banks of the pond are fairly steep, whilst the pond itself is thought to be less than 30 cm deep.

3.11. **Scrub**

3.11.1. Amenity planting in the south of the site grades into scrub at the eastern end of the metal grille fence enclosing the Carcraft plot in this area, and continues southwards around pond P1 (see Photograph 2). Species present include Crack Willow (up to 6 m tall), Dogwood, Hazel, Bramble, Rose *Rosa* sp. and Rosebay Willowherb.

3.11.2. An area of amenity plating on the eastern boundary of the Carcraft car park has become overgrown and invaded the grassland immediately to the west of Croxteth Brook / Knowsley Brook. Species present in this stand include Ash trees to a height of 4 m tall, Dogwood, Rose, Dog Rose and a ground layer of Dandelion, Red Clover, Dove's-foot Cranesbill and Broad-leaved Dock.

3.11.3. A thicket of Bramble scrub is present in the north-east of the site on the western bank of the brook.

3.11.4. A planted area present to the west of the Home Bargains car park largely contains native scrub and tree species (see Photograph 5). Some fly-tipping, for instance of an old bicycle, is evident in this area. Woody species present include Field Maple *Acer campestre*, Hornbeam *Carpinus betulus*, Oak *Quercus robur*, Willow *Salix* sp., Cherry Laurel and Thunberg's Barberry, with a ground layer of leaf litter, Common Bent *Agrostis capillaris*, Bramble, Broad-leaved Dock, Colt's-foot, Dandelion. The centre of the stand is somewhat more open and grassy, with Creeping Thistle, Red Clover and Ribwort Plantain also present in the ground layer.

3.12. **Trees**

3.12.1. Semi-mature Ash trees up to approximately 4 m tall are present at a regular spacing within the grid system of road islands present in the Carcraft car park.

3.13. **Background Records**

3.13.1. MBB returned no records of notable plants from within the site. The nearest record of a notable or protected plant species concerns Bluebell *Hyacinthoides non-scripta*, a Schedule 8 Wildlife and Countryside Act 1981 species, which was recorded approximately 0.5 km south-east of the site in 1981.

3.13.2. A number of records of Himalayan Balsam *Impatiens glandulifera*, a non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), were returned by the desk study exercise. However, the closest of these refers to the presence of the species approximately 0.2 km north-west of the site in 2006 prior to the development of the location and no recent records of such species were returned from the site, nor were any observed during the course of the survey work completed.

4. WILDLIFE USE OF THE SITE

4.1. General observations were made during the surveys of any faunal use of the site, with specific attention paid to the potential presence of protected species.

4.2. Bats

4.2.1. No trees within the site have features that are suitable to support roosting bats.

4.2.2. Building B1 has very low / negligible potential to support roosting bats. Bats could potentially gain access to one of the extensions through its damaged doors, but significant mould was noted in this area. Small gaps were noted at the edges of some doors and windows, but the presence of cobwebs on the majority suggests no recent bat use of these crevices has taken place. Small vertical and horizontal gaps at the junctures of metal panels on the building's exterior walls, small gaps formed by ridges on the underside of the metal canopies, open air vents and a small hole in a metal panel next to a roller-shutter door on the north of the building all provide potential roosting opportunities for bats. However, it must be stated and acknowledged that the building is of a construction, design and fabrics not typically associated with roosting bats.

4.2.3. Building B2 is not considered to be suitable for roosting bats.

4.2.4. The damaged fascia board of Building B3 creates and exposes crevices of potential interest to roosting bats. However, this interest is limited, and given the construction, design and fabrics of the building it is considered unlikely that bats would make use of these opportunities.

4.2.5. The frame / cladding of building B4 also creates some small crevices (see Photograph 6), whilst slightly larger gaps are present around drainpipes in the roof canopy. Neither of these features is considered to present any significant or favourable roosting opportunity for bats.

4.2.6. No evidence of bats was noted at any point during the surveys.

4.2.7. Some of the habitats remaining within the site are of some interest for foraging bats. The extensive habitat areas associated with Knowsley Brook to the north and east of the site provide good linear corridors for foraging and commuting bats.

4.2.8. The closest bat record received from MBB is of a single Natterer's Bat *Myotis nattereri* recorded approximately 0.2 km to the south-west of the site in 2010. A record of six roosting Common Pipistrelles *Pipistrellus pipistrellus* was returned from another location approximately 0.2 km to the south-east of the site in 2009. One recent record of Soprano Pipistrelle *Pipistrellus pygmaeus* was also returned from the wider search area.

4.3. Water Voles

4.3.1. The stretch of Croxteth Brook / Knowsley Brook adjacent to the site superficially appears to offer some sub-optimal habitat for Water Vole, with well-vegetated banks including native vegetation, optimal slope, soft earth,

refuge areas above extremes in water levels, and an apparent lack of invasive non-native plant species (see Photograph 2). Nonetheless, certain features such as open water are lacking, and no evidence of the presence of Water Vole was recorded during the survey, although it is important to note that surveys were not carried out during the recommended survey season and therefore provide only a guide to potential Water Vole use of the brook. A targeted Water Vole survey of a section of Knowsley Brook approximately 0.4 km to the north of the site carried out by Ecology Solutions in 2013 in relation to a nearby development proposal did not find any evidence of the presence of the species.

4.3.2. The nearest record of Water Vole presence refers to an individual recorded immediately east of the site on Croxteth Brook / Knowsley Brook in 2011.

4.4. Badgers

4.4.1. No evidence of the presence of Badger *Meles meles* was observed during survey work undertaken. It is considered that the site provides some suitable foraging and dispersal opportunities for any locally present social group. However, given the small proportion of the site occupied by these opportunities and the abundance of similar habitats in the local area, the site is only considered to offer negligible opportunities for any locally present social group.

4.4.2. MBB returned no Badger records.

4.5. Other Mammals

4.5.1. Evidence of Mole *Talpa europaea* was noted in the semi-improved grassland within the site during the ecological survey work, though this is of little significance.

4.5.2. The closest records received from MBB include Red Squirrel *Sciurus vulgaris* from a location 1.1 km to 2.4 km north-east of the site in 2008 and Hedgehog *Erinaceus europaeus* from a location approximately 0.6 km north of the site in 2012.

4.6. Birds

4.6.1. A number of common and widespread species were recorded during the surveys, including Blackbird *Turdus merula*, Feral Pigeon *Columba livia*, Dunnock *Prunella modularis*, Song Thrush *Turdus philomelos*, Black-headed Gull *Chroicocephalus ridibundus*, Lesser Black-backed Gull *Larus fuscus*, Magpie *Pica pica*, Wren *Troglodytes troglodytes* and Goldfinch *Carduelis carduelis*. A small number of disused nests were recorded within the site; it is thought that these nests belonged to common and widespread species such as Blackbird and Wood Pigeon *Columba palumbus*.

4.6.2. Information received from MBB returned no recent records of any notable species from within the site.

4.7. **Reptiles**

4.7.1. The Carcraft site supports areas of rough, tussocky semi-improved grassland that are suitable for common reptile species and are contiguous with larger areas of similar habitat to the east of the site. No reptiles were seen during the surveys, although surveys were completed outside the recognised active season for this partially protected group.

4.7.2. The desk study returned no records of any reptile species from within the site or the wider search area.

4.8. **Amphibians**

4.8.1. The site contains some habitat with the potential to support amphibians during their terrestrial phase and pond P1 offers some suitability for breeding amphibians. However, an initial appraisal of the pond's suitability for Great Crested Newts *Triturus cristatus* suggests this is, at best, below average. No amphibians were recorded within the site during the survey work.

4.8.2. The only recent record of an amphibian species is of a single adult Common Toad *Bufo bufo* at a location approximately 1.5 km west of the site in 2008.

4.9. **Invertebrates**

4.9.1. The habitats within the site are likely to support a reasonable invertebrate assemblage, although there is no evidence to suggest any notable species would be present.

4.9.2. The closest recent records of a notable invertebrate species refer to the presence of Blue-tailed Damselfly *Ischnura elegans* at a location between 0.5 km and 0.8 km west of the site in 2007. All dragonflies and damselflies are priority species under the North Merseyside Biodiversity Action Plan (BAP).

5. ECOLOGICAL EVALUATION

5.1. The Principles of Ecological Evaluation

5.1.1. The guidelines for ecological evaluation produced by CIEEM propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.

5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe[7]. These are broadly used across the United Kingdom to rank sites so priorities for nature conservation can be attained. For example, current sites of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.

5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.

5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with comparatively poor species diversity, common in the south of England, may be of importance at its northern limits, say in the border country.

5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The North Merseyside BAP highlights a number of habitats. Where these occur within or adjacent to the site they are considered below.

5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the international level.

5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

5.2. Habitat Evaluation

Designated Sites

5.2.1. **Statutory Designations.** There are no statutory designated sites of nature conservation interest within or adjacent to the site. The nearest statutory designated site is Croxteth Local Nature Reserve (LNR), which is located approximately 0.9 km south of the site (see Plan ECO1). The LNR

[7] Ratcliffe, D. A. (1977). *A Nature Conservation Review: the Selection of Study areas of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

comprises 50 ha of woodland, rough grassland and pasture with several ponds, and is bordered by the River Alt.

5.2.2. The LNR is separated from the site by existing industrial and residential buildings and associated infrastructure. The LNR is considered to be sufficiently buffered from the site such that its nature conservation interests would not be directly affected by the proposed development.

5.2.3. The closest Site of Special Scientific Interest (SSSI) is Mersey Narrows SSSI, located approximately 8.2 km to the west of the site. The Mersey Narrows SSSI is notified for its large areas of intertidal sand and mudflats, which support internationally important populations of Turnstone *Arenaria interpres*, Common Redshank *Tringa totanus* and nationally important populations of Cormorant *Phalacrocorax carbo*.

5.2.4. The site falls into an Impact Risk Zone associated with the Mersey Narrows SSSI such that Natural England consider potential development within this zone has the potential to impact the SSSIs in some way. However, given the nature and scale of the proposals for the site, this SSSI is considered to be a sufficient distance from the site for the redevelopment to have no adverse effect upon its interest features.

5.2.5. **Non-statutory Designations.** There are no non-statutory designated sites of nature conservation interest within the site. Croxteth Brook Local Wildlife Site (LWS) / Knowsley Brook proposed Local Wildlife Site (pLWS) is located immediately adjacent to the eastern boundary of the site. It has been designated by Knowsley Council and proposed for designation by Liverpool City Council due to its breeding Water Voles.

5.2.6. Best practice pollution control and impact avoidance measures should be implemented with regard to Croxteth Brook / Knowsley Brook, following Environment Agency guidelines. These guidelines should be adhered to during both the construction and operation of the proposed development. Appropriate standard buffer distances from the watercourse should be enforced, with the boundary treatments designed to safeguard and enhance this wildlife corridor and species therein.

Habitats

5.2.7. Overall the habitats present are of low intrinsic ecological interest and their loss to the proposed development would be of little significance. Pond P1 is of some interest in the context of the site and is to be retained under the proposals. It is also noted that the proposals centre on the conversion of existing buildings and hardstanding for new uses, minimising any loss of semi-natural habitats.

5.2.8. Urban grasslands (a term that includes both the amenity and semi-improved grassland areas within the site) and ponds are priority habitats under the North Merseyside BAP. It is recommended that any areas of grassland to be retained as part of the development proposals should be subject to management that maintains and increases their floristic diversity with an over-sowing / scarification of any retained or re-established grassland with a native wildflower seed mixture. Similarly, the management of pond P1 to

enhance its attractiveness to wildlife would constitute an enhancement in biodiversity terms.

5.2.9. It is recommended that any new landscape planting associated with the proposals incorporate native species or species of known wildlife value.

5.3. Faunal Evaluation

Bats

5.3.1. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2010 ("the Habitats Regulations"). These include provisions making it an offence:

- deliberately to kill, injure or take (capture) bats;
- deliberately to disturb bats in such a way as to:-
  (i) be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
  (ii) affect significantly the local distribution or abundance of the species to which they belong;
- to damage or destroy any breeding or resting place used by bats;
- intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

5.3.2. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

5.3.3. The offence of damaging (making worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

5.3.4. In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:

1. the activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
2. there must be no satisfactory alternative; and
3. the favourable conservation status of the species concerned must be maintained.

5.3.5. Licences can usually only be granted if the development is in receipt of full planning permission.

5.3.6. **Site Usage.** The trees within the site lack suitable opportunities to support roosting bats. The results of the bat survey work undertaken found no use of the buildings for roosting purposes, and the buildings on site are all of constructions, designs and fabrics not typically associated with roosting bats. Pond P1 and the habitats adjacent to Croxteth Brook / Knowsley Brook provide some habitat opportunities for foraging and commuting bats.

5.3.7. **Mitigation.** There is no requirement for a Natural England European Protected Species licence on the results of the surveys completed. However, it is recommended that the landscape strategy for the proposed development incorporate native species of local provenance. An eight-metre-wide maintenance zone along Croxteth Brook / Knowsley Brook is required by the Environment Agency. It is considered that this zone will retain a suitable foraging corridor for bats, and with the retention of pond P1 this will ensure the continuity of habitats for any foraging and commuting bats.

5.3.8. To avoid potential adverse impacts from artificial lighting on bats and other nocturnal species, 'dark corridors' along Croxteth Brook / Knowsley Brook should be incorporated into the design of any scheme. Lighting within the development area should be designed so as to be sympathetic to bats and not significantly increase the lighting level above that currently experienced within the site. The lighting should be directed to where it is needed, thereby avoiding light spillage, and any upward lighting should be minimal to avoid light pollution. Where necessary, hoods should be fitted to lights, directing the light below the horizontal plane to where it is required.

5.3.9. The above shall ensure that any current usage of the site by local bat populations is not significantly affected by the redevelopment proposals.

Water Voles

5.3.10. **Legislation.** Water Voles receive full protection under Section 9 of the Wildlife & Countryside Act 1981 (as amended). Under the legislation it is an offence:

- To kill, injure or take Water Voles intentionally;
- Intentionally or recklessly to damage, destroy or obstruct access to any structure or place which Water Voles use for shelter or protection; and
- Intentionally or recklessly to disturb Water Voles while they are using such a place.

5.3.11. **Site Usage / Mitigation.** The adjacent watercourse is subject to a designation due to the presence of this species, albeit no evidence of Water Vole presence immediately adjacent the site has been identified during surveys carried out to date by Ecology Solutions. It is considered that further targeted surveys in respect of this species could be avoided if appropriate safeguards of the suitable habitats identified can be secured such that these opportunities remain unaltered as part of the development proposals.

Birds

5.3.12. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.

5.3.13. **Site Usage.** It is likely that the trees, scrub, semi-improved grassland and pond within the site will offer good nesting and / or foraging resources for a

variety of common bird species, but there is no evidence to suggest that any notable species would be present on or close to the site.

5.3.14. **Mitigation and Enhancements.** It is recommended that a check survey for nesting bird species be undertaken prior to any removal of suitable nesting habitat, or that this be done outside of the nesting bird season (typically March to July inclusive). No further survey work is required for birds provided that vegetation is cleared outside of the nesting season.

5.3.15. It is recommended that the landscape strategy for the proposed development incorporate native species of local provenance and include shrubs and trees to provide suitable nesting and foraging habitat for birds.

Reptiles

5.3.16. **Legislation.** All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance.

5.3.17. Rare, endangered or declining species receive 'full protection' under the Wildlife and Countryside Act 1981 as well as protection under the Conservation (Natural Habitats &c.) Regulations 2010 (as amended), which transposed into UK law the European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, more commonly known as the Habitats Directive. Species that are fully protected include Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis*. These receive protection from:

- killing, injuring, taking;
- possession or control (of live or dead animals, their parts or derivatives);
- damage to, destruction of, obstruction of access to any structure or place used for shelter or protection;
- disturbance of any animal occupying such a structure or place; and
- selling, offering for sale, possession or transport for purposes of sale (live or dead animal, part or derivative).

5.3.18. Owing to their abundance in Britain, Common Lizard *Zootoca vivipara*, Slow-worm *Anguis fragilis*, Grass Snake *Natrix natrix* and Adder *Vipera berus* are only 'partially protected' under the Wildlife and Countryside Act 1981 (as amended) and as such only receive protection from:

- deliberate killing and injuring;
- being sold or other forms of trading.

5.3.19. **Site Usage / Mitigation.** The rough semi-improved grassland habitat in the vicinity of the off-site watercourse is of superficial suitability for common reptiles. It is therefore recommended that targeted surveys for this group are completed prior to any clearance work of suitable habitats.

Amphibians

5.3.20. **Legislation**. All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). The level of protection varies from protection from sale or trade only, as is the case with

species such as Smooth Newt *Lissotriton vulgaris* and Common Toad *Bufo bufo*, to the more rigorous protection afforded to the Great Crested Newt.

5.3.21. Although Great Crested Newts are regularly encountered locally and throughout much of England, the UK holds a large percentage of the world population of the species. The UK has an international obligation to conserve the species; it receives full protection under domestic and European legislation.

5.3.22. Great Crested Newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended; "the Habitats Regulations"). These include provisions making it an offence:

- deliberately to kill, injure or take (capture) Great Crested Newts;
- deliberately to disturb Great Crested Newts in such a way as to:-
  (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
  (ii) affect significantly the local distribution or abundance of the species to which they belong;
- to damage or destroy any breeding or resting place used by Great Crested Newts;
- intentionally or recklessly to obstruct access to any place used by Great Crested Newts for shelter or protection.

5.3.23. European Protected Species licences are available from Natural England in certain circumstances, and permit activities that would otherwise be considered an offence.

5.3.24. **Site Usage / Mitigation.** Pond P1 offers some suitability for breeding amphibians, but this is considered to be limited suitability with respect to Great Crested Newts. Given the paucity of the aquatic habitats for Great Crested Newts and the lack of local records, no targeted surveys are recommended. Attention should be paid to the potential presence of Great Crested Newts under any refugia checked as part of targeted reptile surveys. Rough semi-improved grassland within the site provides dispersal opportunities for amphibians, and the retention and favourable management of these areas under the development proposals would maintain and potentially enhance these opportunities. Management that maintains and increases floristic diversity within areas of grassland, as outlined above, is recommended in this regard. As a further enhancement, hibernacula or log piles could be established in undisturbed areas of the site in the vicinity of the adjacent watercourse to offer new habitat features of benefit to amphibians.

6. PLANNING POLICY CONTEXT

6.1. The site is situated in the City of Liverpool, save for the extreme south-eastern corner, which is situated in the Metropolitan Borough of Knowsley. The planning policy framework that relates to nature conservation at the site is issued at two main administrative levels: nationally through the National Planning Policy Framework (NPPF) and locally through the Liverpool Core Strategy Submission Draft and the emerging Knowsley Local Plan. Any proposed development will be judged in relation to the policies contained within these documents.

6.2. National Policy

National Planning Policy Framework

6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the NPPF, published in March 2012. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODPM, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).

6.2.2. The key element of the NPPF is that there should be "*a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking*" (paragraph 14). It is important to note that this presumption "*does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined"* (paragraph 119).

6.2.3. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 109) and ensuring that Local Authorities place appropriate weight to statutory and non-statutory nature conservation designations, protected species and biodiversity.

6.2.4. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, enhancement and management of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.

6.2.5. Paragraph 118 of the NPPF comprises of a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated for; applying the protection given to European sites to potential SPAs, possible SACs, listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments resulting in the loss or deterioration of 'irreplaceable' habitats - unless the need for, and benefits of, the development in that location clearly outweigh the loss.

6.2.6. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation

of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

6.3. Local Policy

Liverpool Core Strategy Submission Draft 2012

6.3.1. Although this document remains in draft and is to be incorporated into an imminent draft Local Plan, a planning policy officer at Liverpool City Council has confirmed that it is the document against which planning applications will be judged.

6.3.2. The Core Strategy sets out the key planning policies that will determine how Liverpool develops over the next 15 years. *Strategic Objective Five: High Quality Infrastructure* contains a number of policies relevant to nature conservation and these are detailed below.

6.3.3. *Strategic Policy 26: Protecting and Enhancing Green Infrastructure*

Protection

1. **Liverpool's green infrastructure resource will be protected from inappropriate development. Specifically, protection will be afforded to:**

    a) **Sites that provide a high number of green infrastructure functions/benefits;**
    b) **Strategically important open spaces, including Green Wedges and the Mersey Estuary SSSI/SPA/Ramsar Site;**
    c) **The network of City, District, Neighbourhood and Local Parks;**
    d) **Biodiversity assets, including Local Wildlife Sites (LWS) and Local Nature Reserves (LNR);**
    e) **Regionally Important Geological/Geomorphological Sites (RIGS);**
    f) **Locally important open spaces and water courses, including amenity spaces, allotments, playing fields and pitches; and**
    g) **Open spaces of historic value.**

2. **Development which is considered likely to cause material harm to a site will not be supported unless the benefits outweigh its loss. Where there is a loss of a green infrastructure asset, replacement provision may be required. In assessing material harm, account will be taken of:**

    a) **Recreational function, visual amenity, biodiversity, historic and structural quality and value; and**
    b) **The green infrastructure functions provided.**

Enhancement

3. **Green infrastructure will be managed and enhanced to support the regeneration of the City, strengthen its distinctive sense of place and provide a multi-functional resource capable of delivering a wide range of environmental, economic and other quality of life benefits for local communities within the City by:**

    a) **Requiring development proposals to make an appropriate contribution to the enhancement of the City's green infrastructure resource, either through on-site provision or a contribution to improving the function, quality and/or value of a**

nearby open space or green infrastructure asset. This could include:

i. **The use of innovative green infrastructure measures such as green roofs in the design of the development;**
ii. **Integration and enhancement of biodiversity features;**
iii. **Contributing to effective water management through the use of permeable surfaces and/or Sustainable Urban Drainage Systems and where possible and appropriate to do so the opening up of culverted watercourses;**
iv. **Improving or creating green routes to encourage active and sustainable travel and recreation;**
v. **Improving the recreational function of open spaces, particularly where it would assist in minimising recreational pressures on internationally-designated sites both within and beyond the City boundary;**
vi. **Providing or enhancing green infrastructure at key gateways to, and along, key corridors in the City; and**
vii. **Maintaining access to, and where required addressing deficiencies in, accessible open space.**

b) Requiring green infrastructure plans for all major development proposals to set out how the proposal will contribute to the objectives of the Green Infrastructure Strategy, including an assessment of the green infrastructure functions and benefits provided.

c) Supporting innovative small-scale green infrastructure projects which meet identified needs of that area. This could include food growing, small community gardens or public art projects.

The City's green infrastructure assets will be identified, and the detailed criteria-based policy for protecting and enhancing green infrastructure, will be set out in a further development plan document.

6.3.4. *Strategic Policy 27: Supporting Green Infrastructure Initiatives*

The City Council will support and help deliver the aims and objectives of local and sub-regional green infrastructure initiatives and programmes that seek to enhance and create green infrastructure in Liverpool and which deliver a wide range of environmental, economic and quality of life benefits for local communities within the City, including:

a) The Mersey Forest;

b) Green Infrastructure Framework for the Liverpool City Region;

c) North Merseyside Biodiversity Action Plan; and

d) Liverpool City Region Ecological Framework.

6.3.5. *Strategic Policy 30: Green Infrastructure in the Suburban Areas*

1. In the Suburban Areas the emphasis will be on safeguarding green infrastructure and increasing opportunities to enhance its functionality. This will be achieved by protecting and enhancing:

a) Biodiversity assets, specifically:

i. The Mersey Estuary SPA/Ramsar/SSSI;

ii. Local Wildlife Sites;

iii. Local Nature Reserves at Croxteth Country Park, Mill and Alder Wood, Childwall Woods and Fields, and Eric Hardy in Allerton;

b) The predominately open character and function of the Green Wedges at Otterspool and Calderstones/Woolton;

c) City Parks – Sefton, Calderstones, Croxteth Parks and Otterspool Park and Promenade; and the restored open land at the Garden Festival site which is also part of the Green Wedge; and

d) Locally important open space sites, particularly in the Regeneration Fringes.

2. A local change to the Green Belt boundary south of the existing operational airport, to facilitate expansion as set out in the Airport Masterplan in the latter part of the Core Strategy period, will be considered. The precise extent of this change, and detailed criteria to be met in its implementation, will be set out in a further development plan document.

Knowsley Replacement Unitary Development Plan

6.3.6. The Knowsley Replacement Unitary Development Plan (UDP), adopted June 2006, is the current document in use for planning control purposes. There are two policies within this document that relate in whole or in part to nature conservation, policies *ENV9* and *ENV10*. Policy *ENV9* is concerned with the protection of internationally, nationally, and locally designated sites, while policy *ENV10* is concerned with protected species.

6.3.7. Following a direction by the Secretary of State in June 2009, the above policies have been saved until the adoption of the Local Plan.

Emerging Knowsley Local Plan

6.3.8. The emerging Knowsley Local Plan will comprise a number of documents, with the Core Strategy being the central, overarching strategy within the Local Plan. Once the Local Plan is completed and adopted, the documents within it will eventually supersede the Unitary Development Plan.

6.3.9. There are currently three emerging policies and one emerging Strategic objective within the Core Strategy Submission Document (July 2013) that relate in whole or in part to nature conservation, namely *Strategic Objective 8* and Policies *CS2*, *CS8* and *CS21*.

6.3.10. *Strategic Objective 8* relates to Green Infrastructure and the need to promote biodiversity.

6.3.11. Policy *CS2* contains a number of principles, principle 4 being concerned with maintaining and enhancing the amount and quality of biodiversity within the area. The policy is also concerned with potential impacts on internationally and nationally important sites.