

6.0 ECOLOGY AND NATURE CONSERVATION

6.1 INTRODUCTION

Land Use and Site Context

6.1.1 The review area comprising the site and its immediate surrounds (as shown on Figure 6.1 Phase 1 Habitat Plan) consists of large areas of woodland and mature scrub and secondary habitats consisting of ephemeral/short perennial vegetation with smaller areas of semi-improved grassland, amenity grassland and Japanese knotweed.

Scope of Assessment

6.1.2 This chapter considers issues relating to ecology and nature conservation and presents the results of a series of ecological surveys undertaken in 2004 and 2005.

6.1.3 The baseline ecology of the site and its surrounds has been reviewed and the character and nature conservation value of habitats and species assessed. Potential sources of impact to flora and fauna of the proposed development and its local area are outlined. Where impacts are considered to be present, mitigation is suggested to avoid or reduce these.

6.1.4 The aims of the assessment were:

- To characterise all habitats present at the site including woodland, scrub, grassland, hedgerows, fields, open water, water courses and areas of dereliction
- To compile species lists for habitats within the proposed development boundary
- To assess species distribution and diversity
- To review habitats of nature conservation value in a local, regional and national context and within the context of current and emerging nature conservation policies

- To assess the impact of the development on the existing ecology
- To identify areas of ecological interest and make recommendations to minimise the potential impact of development and where feasible to consider opportunities for additional habitat creation

6.1.5 Specifically, this document presents the results of:

1. An extended Phase 1 Habitat Survey describing all major habitats within the site and immediate surrounding area
2. A badger survey
3. A bat survey
4. A great crested newt survey
5. A water vole survey
6. A reptile survey
7. An otter survey
8. A breeding bird survey
9. An invertebrate survey

6.2 ASSESSMENT METHODS

Consultations for Existing Data

6.2.1 The following organisations/individuals were approached for existing information regarding the site and surrounding area within 2km

- The Biological Records Centre
- MAGIC
- Badger Group
- Bat Group
- Ornithological Society
- Invertebrate site Register
- RSPB

Data provided from the consultation exercise is included at appendix 6.1.

Surveys for Flora and Fauna

- 6.2.2 Detailed survey methodologies for flora and fauna are provided at Appendix 6.1. Habitats were surveyed using standard extended Phase 1 survey methods (JNCC 1993). In addition to these the site was surveyed for badger *Meles meles*, water vole *Arvicola terrestris*, otter *Lutra lutra*, great crested newt *Triturus cristatus*, reptile and bat species *Chiroptera*. In addition breeding bird surveys were undertaken together with an invertebrate survey. All methodologies followed published guidelines as accepted by statutory and non-statutory agencies including English Nature, the Environment Agency and the Mammal Society.

Assessment Methodology

- 6.2.3 Detailed assessment methodologies are presented at Appendix 6.1. Reference has been made to the Guidelines for Baseline Ecological Assessment (1995) and to the Institute of Ecology and Environmental Management (IEEM) Guidelines on Ecological Impact Assessment (November 2002 and draft 2005).

6.3 PLANNING CONTEXT

Review of Relevant Planning Policy Guidance

- 6.3.1 Existing and emerging planning policies have been reviewed as part of this assessment including the Regional Spatial Strategy for the West Midlands (RSS 11), Unitary Development Plan and PPS9 (2005), which has now superseded PPG9. Relevant policies are detailed below.
- 6.3.2 The site and species recorded on it have also been considered within the context of the relevant legislation including the Wildlife and Countryside Act 1981 (as amended), the Conservation (Natural Habitats) Regulations 1994 and the Protection of Badgers Act 1992. National and Local Biodiversity Action Plans provide a further indication of the relative nature conservation value given to existing habitats and species. These have been used when assessing the value of the habitats and species present within the site.

6.3.3 **PPS9: National Planning Policy Key Principles:**

1. Planning policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas. These characteristics should include the relevant biodiversity and geological resources of the area. In seeking to keep environmental characteristics under review local authorities should assess the potential to sustain and enhance those resources
2. Planning policies and planning decisions should seek to maintain or enhance or add to biodiversity and geological conservation interests. In taking decisions, local planning authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance and the wider environment.
3. Planning policies on the form and location of development should take a strategic approach to the conservation and enhancement of biodiversity and geology, and recognise the contributions that individual sites and areas make to conserving these resources within the wider environment.
4. Subject to other planning considerations, development seeking to conserve or enhance the biodiversity and geological conservation interests of the area and/or the immediate locality should be permitted.
5. Local planning authorities should consider whether proposed developments can be accommodated without causing harm to biodiversity and geological conservation interests. Where there may be significant harmful effects, local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less, or no harm, have been fully considered.
6. Where development will result in unavoidable and significant adverse impacts on biodiversity and geological conservation, planning permission for it should only be granted where adequate mitigation measures are put in place. Local planning authorities should normally seek appropriate measures to compensate for any harm, which cannot be prevented or mitigated.
7. Development policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development

6.3.4 **Regional Spatial Strategy for the West Midlands (RSS 11)**

Policy QE1 – Conserving and Enhancing the Environment

- a) Environment improvement is a key component of the Spatial Strategy in order to underpin the overall quality of life of all areas and support wider economic and social objectives.
- b) Local authorities and other agencies in their plans, policies and proposals should :-
 - i) support regeneration, by restoring degraded areas, conserving existing environmental assets, including the reuse of redundant and underused buildings of merit, and creating new, high quality, built and natural environments, particularly within the MUAs;
 - ii) conserve and enhance those areas of the Region, where exceptional qualities should be reinforced by sustainable use and management, including the Peak National Park, the five Areas of Outstanding Natural Beauty, the European wildlife sites, and the World Heritage Site (see Environmental Assets Diagram);
 - iii) protect and where possible enhance other irreplaceable assets and those of a limited or declining quantity, which are of fundamental importance to the Region's overall environmental quality, such as specific wildlife habitats (Annex B), historic landscape features and built heritage, river environments and groundwater aquifers;
 - iv) protect and enhance the distinctive character of different parts of the Region as recognised by the natural and character areas (Figure 4) and associated local landscape character assessments, and through historic landscape characterisation.
- c) In bringing forward development, all agencies and developers should adopt high standards for sustainable natural resource use and management in line with policies such as QE3, QE9, EN1 – 2 and M3.

Policy QE2 – Restoring Degraded Areas and Managing and Creating High Quality New Environments

- a) Local authorities, other agencies and local communities should work together to develop strategies and programmes that optimise the contribution that the natural, built and historic environment can make to the physical, economic and social regeneration of the West Midlands. Regeneration schemes should capitalise on the quality and distinctiveness of the Region's urban and rural environment.
- b) Development plans and other strategies should :-
 - i) contain policies that promote environmental improvements as a means of regenerating areas of social, economic and environmental deprivation;
 - ii) promote the restoration and remediation of derelict and contaminated sites and reuse of buildings, having regard to the Region's biodiversity and historic assets;
 - iii) initiate programmes of physical regeneration in areas suffering from inadequate investment in the built and natural environment; and
 - iv) aim to provide measures which reduce the impact of the environmental problems associated with transport growth and bring forward environmental improvements particularly along major transport routes.
- c) In implementing this policy the need to make the most efficient use of previously developed land should take into account the need to preserve buildings of historic value (QE5) and preserve and create open spaces for recreation, community health and natural habitats (QE4, QE7 – 9).

Policy QE4 – Greenery, Urban Greenspace and Public Spaces

- a) Local authorities and other agencies should undertake assessments of local need and audits of provision, and develop appropriate strategies for greenspace to ensure that there is adequate provision of accessible, high quality urban greenspace with an emphasis on :-
 - i) significantly improving the overall quality of public space, especially in city and town centres;
 - ii) enhancing the setting of local residential neighbourhoods in built up areas;
 - iii) increasing the overall stock of urban trees;

- iv) improved accessibility and community safety; and
 - v) maintaining and enhancing sports, playing fields and recreation grounds.
- b) Development plan policies should create and enhance urban greenspace networks by :-
- i) ensuring adequate protection is given to key features such as parks, footpaths and cycleways, river valleys, canals and open spaces;
 - ii) identifying the areas where new physical linkages between these areas need to be forged; and
 - iii) linking new urban greenspace to the wider countryside to encourage the spread of species.
- c) Local authorities and others should also encourage patterns of development which maintain and improve air quality and minimise the impact of noise upon public space. Artificial lighting should be used sensitively to aid safety whilst minimising pollution.

Protecting, Managing and Enhancing the Region's Biodiversity and Nature Conservation Resources.

The areas for biodiversity enhancement identified on the Quality of the Environment Areas of Enhancement diagram offer some of the best prospects for retaining environments with a rich and resilient biodiversity resource. Within these areas ecological integrity should be reinforced by :-

- a) supporting existing biodiversity and landscape enhancement projects;
- b) buffering habitat units from adverse impacts;
- c) restoring and re – creating locally characteristic habitats;
- d) expanding and linking isolated habitat units; and
- e) promoting social and economic benefits by investing in linked facilities for sustainable access, enjoyment and education, and in businesses that contribute to and capitalise on a high quality natural environment.

The UK Biodiversity Action Plan's (UKBAP) targets have been redeveloped, through a Regional Biodiversity Audit, into the Regional Priority Habitat Targets

set out in Annex B. Local Biodiversity Action Plans (LBAPs) will carry forward these targets on a sub – regional basis. Their implementation requires cross – sectoral collaboration and must be reflected in all partnerships and strategies. Planning conditions and agreements, agri – environment schemes, management agreements, land acquisition for nature reserves and projects such as the Forest of Mercia or the Meres and Mosses project are valuable tools to assist in achieving the targets.

The natural area profiles for the West Midlands and an understanding of the local status of Regionally important landscape features for biodiversity (Annex B) should inform development plan policies addressing wildlife conservation needs in the wider landscape.

Policy QE7 – Protecting, managing and enhancing the Region’s Biodiversity and Nature Conservation Resources

All the plans and programmes of local authorities and other relevant agencies should :-

- i) encourage the maintenance and enhancement of the Regions wider biodiversity resources, giving priority to :-
 - the protection and enhancement of specific species and habitats of international, national and sub regional importance as identified in the West Midlands Biodiversity Audit, Local Biodiversity Action Plans (LBAPs) and other BAPs;
 - those that receive statutory protection; and
 - the biodiversity enhancement areas shown on the QE Areas of Enhancement Diagram.
- ii) include policies and proposals which enable the West Midlands to achieve its minimum share of the UK Biodiversity Action Plan (UKBAP) targets as set out in Annex B and the targets of local partnerships and other BAPs;
- iii) take a common approach to biodiversity and nature conservation issues which cross local planning authority and regional boundaries, especially those relevant to :-

- the strategic river corridors and tributaries of the Severn, Trent, Avon and Wye, river catchments, and issues in current local Environment Agency plans; and
- priorities derived from English Natural Areas Framework and associated Area Profiles and the West Midlands Biodiversity Audit.

6.3.5 **Unitary Development Policy**

Policy N1: Promotion Of Nature Conservation (Part I)

The Council, in partnership with a range of organisations and adjoining local authorities, will seek to secure the appropriate study, protection, management, enhancement and expansion of Wolverhampton's existing nature conservation resource, including the creation of new habitats and features of value for nature conservation. The value of Local Nature Reserves and Sites of Importance for Nature Conservation will be strongly protected. In particular, the Council will seek to:

Carry out regular survey work, sufficient to effectively monitor, protect and enhance Wolverhampton's nature conservation resource, and make site designation criteria and survey results publicly accessible, where appropriate; prepare supplementary planning guidance on nature conservation in relation to development control and land management;

Develop the nature conservation value of open space within its ownership;

Enter into agreements to improve the use, treatment and management of land of nature conservation value;

Acquire land of high existing or potential nature conservation value, subject to resources;

Enhance public appreciation of wildlife in Wolverhampton through, for example, improving access and signage, use of promotional materials and work with schools;

Ensure that there is no overall reduction in biodiversity due to development.

Policy N2: Access To Natural Green Space

The Council will seek to ensure that all residents have access to a natural green space within 400m of their home. In areas falling short of this requirement, the protection and provision of publicly accessible natural green space of value for wildlife will be a high priority.

Policy N3: Protection Of Sites Of Importance For Nature Conservation

Development likely to have a harmful effect on the nature conservation or geological value of all or part of a Site of Importance for Nature Conservation (SINC) will not be permitted. Where a proposed development site adjoins a SINC, the Council will seek to secure the protection and long term management of important habitats or features, through the use of conditions, planning obligations or management agreements, where appropriate. Developers may be required to submit an ecological survey and impact assessment to accompany any proposal or as a condition of any permission.

Landscape Features of Value for Wildlife or Geology

Where a proposed development site includes or adjoins:

A Site of Local Importance for Nature Conservation; or

Any landscape feature of value for wildlife, as specified in the Conservation (Natural Habitats, etc.) Regulations 1994,

The protection and long-term management of important features will be sought through the use of conditions, planning obligations or management agreements, where appropriate. Developers will usually be required to submit an ecological/geological survey and impact assessment to accompany any proposal. Development which may have a harmful effect on the nature conservation value, geological value or integrity as a wildlife corridor, of such sites or features will only be permitted in exceptional circumstances, where the benefits generated by the development would clearly outweigh nature conservation considerations. In such cases, developers will be required, through the use of conditions, planning obligations or management agreements where appropriate, to minimise any harm caused and to carry out sufficient measures to compensate for any harmful effects, as defined in Supplementary Planning Guidance on Nature Conservation.

Policy N9: Protection Of Wildlife Species Where there is a strong indication that a proposed development site is made use of by:

Badgers;

Species listed in schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981, as amended;

Species listed in schedules 2, 3 or 4 of the Conservation (Natural Habitats, etc.) Regulations 1994; or

Any other species listed in current Supplementary Planning Guidance on Nature Conservation,

The Council will seek to secure the long term protection and management of breeding, resting or feeding habitats, sufficient to safeguard current populations of such species, through the use of conditions, planning obligations or management agreements, where appropriate. Developers will usually be required to submit an ecological survey and impact assessment to accompany any proposal. Development which may have an adverse effect on the habitat requirements of any of these species will only be permitted in exceptional circumstances, where the benefits generated by the development would clearly outweigh nature conservation considerations. In such cases, developers will be required, through the use of conditions, planning obligations or management agreements where appropriate, to minimise any harm caused and to carry out sufficient mitigation measures to compensate for any adverse effects. In addition, where a development site is used by species protected under Schedule 2 of the Habitats Regulations, planning permission will not be granted unless the requirements of Article 16 of the Habitats Directive have been met.

- 6.3.6 The Birmingham and the Black Country Biodiversity Action Plan (BBBAP) is used as supplementary planning guidance. This provides habitat and species action plans for habitats and species of local and national importance and enables planners to assess applications with regard to PPS9 and biodiversity issues.

6.4 EXISTING BASELINE CONDITIONS

Consultation Results

- 6.4.1 Statutory Sites. There are no statutory sites of nature conservation interest within 2km of the study area.

6.4.2 Non Statutory Sites. Ladymoor Pool, a Site of Importance for Nature Conservation (SINC), lies immediately to the south of the site. This is designated because it is:

“of some value to birds but the main interest of the site are the hummocky clinker areas with their wet hollows which have been colonised by an unusual community of plants. A number of sedges, rushes, mosses and liverworts are to be found here, several of which are uncommon in the county. Perhaps most notable are sphagnum moss species sand slender rush. Marsh arrow grass, bristle scirpus, sneezewort, prickly sedge, common spike rush, quaking grass and water horsetail are also interesting being locally uncommon”.

6.4.3 Bankfield Road Site of Local Importance for Nature Conservation (SLINC) lies within the eastern quarter of the site. Figure 6.2 illustrates the location of these.

Table 6.1 Statutory and Non-Statutory Site Summary

Name of Wildlife Site	Description	Approx dist from site
Bankfield Road Site of Local Nature Conservation Importance (SLINC)		Eastern third of site
Ladymoor Pool	Site of Importance for Nature Conservation (SINC). Surrounded by broadleaved plantation. Site valued for its water fowl populations.	Adjacent to south-western boundary of site
Land North of Ladymoor Road	Site of Local Importance for Nature Conservation (SLINC). Mosaic of wet and dry grassland, ruderal plants and scrub, with some rare plant species	150m from south-western boundary of site
Moorcroft Wood	Local Nature Reserve. 13 hectares of broadleaved woodland.	1300m from south-eastern boundary of site

Dudley-Priestfield Disused Railway	2 stretches of disused railway which have been landscaped into walkways. Parts are SLINCs and other parts are classed as wildlife corridors.	Runs from over 2km away to north and to south. Runs through the centre of the site.
Peascroft Wood	SINC status woodland.	500m to north of site.
Disused Railway, Monmore Green	Wildlife corridor and parts are SLINC status.	Stems from Dudley-Priestfield disused railway to north west of site. Runs along Eastern site boundary and away to south east.

Site Survey Results

Flora

6.4.4 See also Phase 1 habitat Plan for Target Note (TN) references. (Figure 6.1)

Ephemeral and Short Perennial

6.4.5 Large parts of the eastern half of the site are dominated by secondary vegetation developed over an abandoned industrial area. Typical components of the vegetation include wild mignonette *Reseda lutea*, weld *Reseda luteola*, white melilot *Melilotus albus*, ribbed melilot *Melilotus officinalis*, black medick *Medicago lupulina*, smooth tare *Vicia tetrasperma*, meadow vetchling *Lathyrus pratensis*, common vetch *Vicia sativa*, tufted vetch *Vicia cracca*, common bird's-foot-trefoil *Lotus corniculatus*, rosebay willowherb *Chamaerion angustifolium*, perforate St. John's wort *Hypericum perforatum*, tansy *Tanacetum vulgare*, feverfew *Tanacetum parthenium*. Occasional/localised species include hare's-foot-clover *Trifolium arvense*, zig-zag clover *Trifolium medium*, wild parsnip *Pastinaca sativa* var. *sylvestris*, musk thistle *Carduus nutans*, great mullein *Verbascum thapsus* and red bartsia *Odontites verna*.

Hard standing

6.4.6 Hard standing areas are being colonised by mugwort *Artemisia vulgare*, wormwood *Artemisia absinthium* and broom *Cytisus scoparius*.

Improved Grassland

- 6.4.7 The majority of grassland within the site is improved grassland, much has recently been grazed by horses. These areas support species common to such intensively managed grassland such as white clover *Trifolium repens*, perennial rye-grass *Lolium perenne*, ribwort plantain *Plantago lanceolata* and crested dog's tail *Cynosurus cristatus*. Ruderal species scattered across these areas included broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica* and cleavers *Galium aparine*.

Amenity grassland

- 6.4.8 An area of amenity grassland lies within the former school playing fields. This is composed of species typically associated with such habitats including perennial rye grass *Lolium perenne*, white clover *Trifolium repens* and annual meadow grass *Poa annua*.

Semi-improved grassland

- 6.4.9 Two small areas of grassland along the southern edge of the site are classed as semi-improved (TN 1). These contain large quantities of yellow rattle *Rhinanthus minor* and common centaury *Centaureum erythraea*.

Ruderal, tall herb and scrub

- 6.4.10 Dense stands of common nettle *Urtica dioica*, creeping and spear thistles *Cirsium arvense* and *C. vulgare* and bramble *Rubus fruticosus* agg. are located along field edges (TN2), as well as around the western edge of the scrapyard.
- 6.4.11 Japanese knotweed forms dense continuous stands across large areas of the site. This has been treated but is still spreading across the site. A separate strategy has been prepared in order to address this problem.

Broad-leaved Woodland

6.4.12 Several stands of immature broad-leaved woodland are present across the site. These have been planted relatively recently and consist of species including alder *Alnus glutinosa*, Italian alder *A. cordata*, and various willows *Salix sp.* Some areas are dominated by silver



birch *Betula pendula*, with occasional sycamore *Acer pseudoplatanus*. Understorey shrubs include elder *Sambucus nigra*, hawthorn *Crataegus monogyna*, privet *Ligustrum sp.*, field maple *Acer campestre*, dogwood *Cornus sanguinea* and rose species *Rosa sp.* Laurel *Prunus laurocerasus* and snowberry *Symphoricarpos albus* are also common throughout.

6.4.13 Mature Lombardy poplar *Populus italica* and aspen *Populus tremula* are located



within the northern half of the site. Some of the Lombardy poplar have Tree Preservation Orders (TPO's) on them. Other species recorded scattered across the site include beech species *Fagus sp.* and London plane *Platanus x hispanica*.

Ornamental Planting

6.4.14 TN3 indicates a hillside comprising laburnum *Laburnum sp.*, cotoneasters *Cotoneaster sp.*, laurel *Prunus laurocerasus*, lilac *Syringa vulgaris* and butterfly bush *Buddleja davidii*,

Aquatic and Marginal Vegetation

6.4.15 The pond (TN4) is surrounded by marginal vegetation including soft rush *Juncus effusus*, sharp-flowered rush *Juncus acutiflorus*, toad rush *Juncus bufonius*, yellow flag *Iris pseudocarus*, reedmace *Typha latifolia*, water plantain *Alisma plantago aquatica*, purple loosestrife



Lythrum salicaria, square-stalked willowherb *Epilobium tetragonum* and meadowsweet *Filipendula ulmaria*. Mature willow scrub surrounds this area.

- 6.4.16 The Canal borders the site to the south. This supports a range of vegetation including reedmace, yellow flag and a pondweed *Potamogeton* sp. This lies outside the development boundary.



- 6.4.17 Target Note (TN5) indicates the location of a small ditch creeping jenny *Lysimachia nummularia* and selfheal *Prunella vulgaris* were amongst the species recorded here.
- 6.4.18 TN6 refers to a ditch; this large narrow channel runs parallel to the northern edge of the site and is densely vegetated with pea species dominating.

Mineshaft Stabilisation Works

- 6.4.19 Small areas have been recently disturbed by mine shaft stabilisation works (e.g. at TN 7) and also along earth banks within the fields to the west of the Morrisons site. Recolonising vegetation in these areas includes hedge mustard *Sisymbrium officinale*, charlock *Sinapsis arvensis*, pineappleweed *Matricaria discoidea*, scentless mayweed *Tripleurospermum inodorum*, scarlet pimpernel *Anagallis arvensis*, shepherd's purse *Capsella bursa pastoris*, knotgrass *Polygonum aviculare*, redshank *Polygonum persicaria*, and biting stonecrop *Sedum acre*.

County Wildlife Site

- 6.4.20 The Bankfield Road SINC is located within the eastern half of the site across the area dominated by ephemeral short perennial vegetation (6.4.2) with scattered scrub and large stands of Japanese knotweed. The presence of the scrapyards and the large stands of Japanese knotweed has led to a decline in the quality of the area.

Fauna

Badgers

- 6.4.21 One active badger sett is present on-site. No other evidence of badger *Meles meles* activity was observed during any of the site surveys. The scrapyard was surveyed in October 2005 after security guards observed a young badger within the boundaries of this area. No setts or latrines were found within this area. It is likely that the badgers are moving into the site to forage from adjacent habitats.

Great Crested Newt

- 6.4.22 British waterways undertook a great crested newt survey during June 2003 which identified two 11mm long tadpoles as great crested newt tadpoles. Atkins carried out surveys in 2004 and recorded two possible great crested newt larvae. In addition destructive searches carried out during 2004 whilst mine shaft grouting was carried out identified one juvenile and one probable juvenile great crested newt. FPCR conducted destructive searches during 2004 whilst ground investigations were underway and no great crested newts were discovered. Several hundred smooth newts were recorded. A further six visit presence/absence surveys carried out during 2005 by FPCR between mid March and mid June recorded only smooth newts within the pond and canal.

Bats

- 6.4.23 Buildings adjacent the Metabrasive site provide little potential for use by roosting bats. Trees within the site provide little potential for use by roosting bats. Most are immature with few features such as lifting bark and holes that may be utilised by this group. A transect survey carried out during 2005 recorded only common pipistrelle *Pipistrellus pipistrellus* flying and foraging across the site. Results are provided at appendix 6.3.

Water Vole

- 6.4.24 No evidence of water vole has been recorded on the site.

Otter

- 6.4.25 No evidence of otter was recorded within or adjacent to the site.

Reptiles

- 6.4.26 No evidence of reptiles has been recorded during any of the presence/absence surveys.

Invertebrates

6.4.27 Several invertebrate surveys have been carried out on the site. Detailed report is held at appendix 6.4 Surveys of the canal during 2001 recorded three nationally scarce and one Notable B species. These are listed below:

Coleoptera

<i>Enochrus melanocephalus</i>	Nationally Scarce
<i>Helochares lividus</i>	formerly Notable B

Diptera

<i>Odontomyia tigrina</i>	Nationally Scarce
<i>Oxycera morrisii</i>	Nationally Scarce

6.4.28 Entotax Consultants UK also undertook a terrestrial invertebrate survey of the development site in 2001 (Entotax 2001). The following Nationally Scarce species were recorded:

Coleoptera (recorded by Entotax)

<i>Hippodamia variegata</i>	Notable B
<i>Polydrusus splendidus</i>	Notable A
<i>Protapion dissimile</i>	Notable B

Diptera (recorded by A. Godfrey)

<i>Homoneura patelliformis</i>	Nationally Scarce
<i>Tetanocera punctifrons</i>	Nationally Scarce
<i>Opomyza punctata</i>	Nationally Scarce
<i>Lasiambia palposa</i>	Nationally Scarce
<i>Siphonella oscinina</i>	Nationally Scarce

6.4.29 Surveys during 2004 recorded two nationally scarce species (a harvestman and a fly). In addition, a parasite fly only recently added to the British list and of uncertain status was also recorded. The three species are listed below:

Arachnida

<i>Dicranopalpus ramosus</i>	Nationally Scarce
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Diptera

<i>Lasiambia palposa</i>	Nationally Scarce
<i>Phasia barbifrons</i>	New to Britain in 2001

6.4.28 In addition to the above, the slender groundhopper *Tetrix subulata* should be mentioned since it is sometimes regarded as a rarity. The slender groundhopper is for example, a County Red Data Book species in Derbyshire and a species of nature conservation concern in Nottinghamshire. According to Haes and Harding (1997) it appears even scarcer in the west.

Birds

6.4.29 Results of bird surveys are appended at 6.5. A total of 37 bird species were recorded across the site of which 13 were confirmed breeding on the site. Of these 13 species one, starling *Sturnus vulgaris*, is listed on the RSPB's Birds of Conservation Concern (BoCC) red list and two, mute swan *Cygnus olor* and dunnock *Prunella modularis*, are listed on the BoCC amber list. Of the remaining 24 species recorded as probable, possible or non breeders four species are listed on the BoCC red list, these are song thrush *Turdus merula*, skylark *Alauda arvensis*, house sparrow *Passer domesticus* and bullfinch *Pyrrhula pyrrhula*. Five further species are listed on the BoCC amber list, these are willow warbler *Phylloscopus trochilus*, green woodpecker *Picris viridis*, kestrel *Falco tinunculus*, mistle thrush *Turdus viscivorus* and black headed gull *Larus ridibundus*. It should be noted that this site has been identified as a possible area for black redstart *Phoenicurus ochruras*, this species was not recorded during any survey visit to the site.

6.5 EVALUATION

6.5.1 The site consists of a large area of green space that supports a number of habitats the largest of which is ephemeral/short perennial vegetation closely followed by trees and shrubs. Habitats form a complicated mosaic across the area and provide several different habitats in close proximity providing conditions suitable for a diverse array of invertebrates. The site also supports a reasonably diverse flora, although none of the species recorded were locally or nationally scarce.

6.5.2 No statutory sites are located within or around the site within 2km. One non-statutory site, a Site of Local Importance to Nature Conservation (SLINC) is located within the boundaries, this is of county importance although it is currently

in a degraded state due to the presence of Japanese knotweed and a lack of management combined with the encroachment of the scrap yard into the area.

- 6.5.3 The site is unusual in the local vicinity due to the large amount of open green space that it provides. In terms of habitat connectivity, the site lies within a very urban environment bounded on the southern side by open fields, where a further SINC, Ladymoor pool is located, on the south eastern side by built environments and the canal, on the north east by the mainline railway and on the north, and west by major roads and the built environment of Bilston. The Open land to the south where Ladymoor Pool SINC is located provides a link to open areas and a potential corridor of movement for wildlife as does the canal, which provides both open water, grassland and mature trees and scrub. The railway line also provides a potential corridor of movement to and from the site.
- 6.5.4 All habitats on the site are relatively young having developed over an old mining area.
- 6.5.4 The presence of a badger sett within the site provides a statutory constraint to development, badgers although common and widespread are protected under the Protection of Badgers Act 1992.
- 6.5.5 A small number of great crested newts have been recorded on the site in the past. This species is fully protected under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats & c.) Regulations 1994. The surveys during 2005 recorded only smooth newts, these surveys were intensive with bottles being set every metre and torch and egg searches being carried out. The extensive destructive searches carried out for the purposes of ground investigations recorded several hundred smooth newts but no great crested newts. It is therefore considered that this species is not currently a constraint to the development of the site but should be considered as a potential and works undertaken accordingly. However, due to the population dynamics of this species and the tendency for them to occur in metapopulations, the possibility of this species using the site in future years cannot be ruled out.
- 6.5.6 Bats are also fully protected under the former acts. A low level of use of the site was recorded during surveys. None of the structures on site provide potential roosts. Trees are generally too young with a lack of any associated features such

as loose bark and fissures that could provide suitable features for use by roosting bats.

6.5.7 Several habitats present within the site are listed on the BDBAP. These include eutrophic urban pools, gardens allotments parks and open space, lowland neutral grassland, urban wasteland and woodland.

6.5.8 Species recorded on the site for which species action plans have been prepared include badger, kestrel, skylark and song thrush.

Table 2 - Nature Conservation Value of Habitats

Feature	Importance	Comment
Open water	Parish/Neighbourhood	Eutrophic urban pools are listed in the BDBAP. The pond supports smooth newts which are covered under amphibians on the LBAP.
Scrub	Parish/Neighbourhood	Important habitat for breeding birds, amphibians and local bat and badger foraging areas
Immature woodland planting	District/borough	Listed on LBAP provide habitat for amphibians, birds, badgers
Lowlands semi-improved neutral grassland	Regional	Listed on the LBAP. Supports a diversity of grass and herb species, provides foraging for badgers and invertebrates
Ephemeral/short perennial vegetation	Regional	Provides mosaic of bare ground and habitats and species of importance to local invertebrate fauna
Canals (outside site boundary but site fronts onto small section)	County/metropolitan	LBAP habitat. Provides a link with other open green spaces within the area allowing movement of species
Bankfield Road SLINC	District/borough	This site has been classified as being of local value but is colonised by large areas of

		Japanese knotweed
Badger	County/metropolitan	Action plan prepared in the LBAP. Protected under the Protection of Badgers Act 1992
<i>Enochrus melanocephalus</i>	Regional	Nationally scarce
<i>Helochaeres lividus</i>	Regional	Formerly Notable B
<i>Odontomyia tigrina</i>	Regional	Nationally scarce
<i>Oxyecera morrisii</i>	Regional	Nationally scarce
<i>Hippodamia variegata</i>	Regional	Notable B
<i>Polydrusus splendidus</i>	Regional	Notable A
<i>Polydrusus dissimile</i>	Regional	Notable B
<i>Homoneura patelliformis</i>	Regional	Nationally scarce
<i>Tetanocera punctifrons</i>	Regional	Nationally scarce
<i>Opomyza punctata</i>	Regional	Nationally scarce
<i>Lasiambia palposa</i>	Regional	Nationally scarce
<i>Siphonella oscinina</i>	Regional	Nationally scarce
<i>Dicranopalpus ramosus</i>	Regional	Nationally scarce
<i>Lasiambia palposa</i>	Regional	Nationally scarce
<i>Phasia barbifrons</i>	Regional	New to Britain in 2001

6.5.9 In summary the site is a large post-industrial area that supports habitats typical of such a site, the immature woodland planting, grassland, bare ground and ephemeral/short perennial mosaic provides habitats suitable to support a wide range of invertebrate species and which has the potential to support a greater diversity of flora. The habitats considered to be of greatest interest within the site are the open water, ephemeral/short perennial vegetation and semi-improved grassland but none of these are outstanding, supporting only common and widespread species. Constraints to development include the SINC and badger sett and the requirement to maintain biodiversity of the area. The presence of Japanese knotweed on the site has led to significant degradation across the area and is also a constraint to development.

6.6 PREDICTED IMPACTS

6.6.1 The legislation requires that attention be paid to all likely forms of impact. These may be:

- Direct or indirect
- Short or long-term
- Intermittent, periodic or permanent
- And/or cumulative.

6.6.2 The proposed development is expected to involve:

- Land-take/removal of habitats and vegetation
- Disturbance/disruption
- Habitat degradation through operation of the site
- Impacts during construction

6.6.3 The following section is based on impacts prior to the implementation of any mitigation measures. Impacts can be divided into those experienced during the construction phase including direct loss of habitat, pollution incidents and damage to habitats from access and operational impacts that are caused as a consequence of the operation of the site. This includes off site impacts such as increased use of habitats.

Construction Impacts

6.6.4 Impacts on Statutory and Non-statutory Sites of Nature Conservation Interest.

No statutory sites of nature conservation interest will be affected by the development proposals.

6.6.5 One locally important non-statutory site that lies within the proposed development area will be entirely lost to the proposed development. This site is currently suffering from invasion of Japanese knotweed and lack of management. The impact will be **long term and minor/moderate**

6.6.6 One SINC, Ladymoor Pool lying to the south of the site could be affected by works associated with proposed development. Actual development work itself is not expected to affect this area but the area may suffer from increased visitor pressure once the site is developed.

- 6.6.7 Habitat Loss. The proposed development at Bilston will lead to the loss of virtually all of the ephemeral/short perennial vegetation and semi-improved grassland within the site. Impacts of these losses are considered to be moderate and permanent. It will also lead to the loss of the majority of the immature broad-leaved woodland, improved and amenity grassland, impacts of these losses are considered to be minor. All areas of Japanese knotweed will be lost this impact is considered to be positive and should be long term depending on future site management. The pond and associated marginal vegetation, semi-improved grassland and immature broad-leaved woodland will be retained and incorporated into the development proposals.
- 6.6.8 Effect of habitat loss on breeding birds. The loss of areas of ephemeral/short perennial vegetation, semi-improved grassland and immature woodland and scrub will lead to loss of the majority of the vegetation that is used by local bird species, this will lead to loss of habitat connectivity across the area and also a loss of breeding and foraging habitat. Five red list and six amber list species will be affected by this loss. Of this number only one red and two amber list species have been confirmed breeding on the site. No schedule one species have been recorded on the site. Kestrel a species for which a local action plan has been developed has been recorded using the site but not confirmed as breeding. The impacts of the loss of this vegetation on the local bird population is classed as minor and permanent.
- 6.6.9 Loss of foraging and flight lines for bats. The majority of the immature woodland and scrub that provides foraging and flight lines for bats will be lost. There is considered to be a minor permanent impact prior to mitigation on this group. There is potential for a positive impact on this group through landscaping including residential gardens and creation of new roosts.
- 6.6.10 Loss of habitat for invertebrates. This is considered to be the most significant impact on the site. The range of terrestrial invertebrates present on the site are dependent on the early successional communities currently extant on the site. These will be lost to the development, leading to the loss of a large majority of the habitat used by terrestrial invertebrates. Impacts are considered to be permanent and moderate prior to mitigation.
- 6.6.11 Degradation of habitats due to soil run-off and accidental pollution. There is some potential for impacts to arise from dust and exposed earth to be washed into local watercourses, particularly during periods of heavy rainfall, which could lead to

impacts to the local wetland habitat types such as the pond and canal. The associated impact is largely considered to be of minor significance and short term. There is also the potential for retained habitats and local water courses to be impacted by accidental spills with substances such as diesel. Such impacts are considered unlikely.

- 6.6.12 Disturbance to wildlife. Disturbance impacts are likely to occur on bird species of conservation interest using the site breeding and foraging, particularly if works occur within the breeding season (March - August). The effect of disturbance varies greatly with species. The potential impact is considered to be short-term and minor.

Operational Impacts

- 6.6.13 Potential impacts during operation of the site will include degradation of adjacent habitats such as Ladymoor Pool through increased visitor pressure and litter pollution.
- 6.6.14 The canal may experience some deterioration in quality through informal dumping from residents and increased use by local workers and local residents. This may lead to trampling of vegetation, disturbance to wildlife and litter build up.
- 6.6.15 Similarly local wildlife including birds may be subject to increased predation and disturbance from cats and dogs.
- 6.6.16 Badgers may experience increased disturbance from people once the development is complete. They may also experience increased mortality from increased road traffic. Major foraging routes will not be severed, therefore the impact is likely to be of minor significance.
- 6.6.17 The impact on bats from disturbance is likely to be confined to the potential for any site lighting to affect foraging or corridor habitat. Impacts are considered to be minor.

Predicted Off Site Impacts

- 6.6.18 There should be no changes in the hydrology of the area. Residential development should not create atmospheric pollution. There is a possibility that the noise of the construction works will carry to adjacent habitats such as the adjacent canal and Ladymoor Pool but the impact of this will be minor, it is generally acknowledged that birds acclimatise to such low level noise in a short period of time (Hockin et al 1992).

Cumulative Impacts

- 6.6.19 Cumulative impacts are defined for the purpose of this ES as “the projects impacts when added to those of other past, present or future projects” (Therivel 1994).
- 6.6.20 From the current knowledge of proposed development within the surrounding area it is considered that there will be no cumulative impacts.

Interactive Impacts

- 6.6.21 Interactive Impacts are defined as “The interaction of impacts to produce an impact greater than the sum of the individual impacts. From the data available, no interactive impacts are predicted.

6.7 MITIGATION

Habitat Retention

6.7.1 Open water and associated scrub, trees and grassland will be retained in the southern corner of the site to provide habitat for amphibians and maintain habitat diversity. This area will be fenced off whilst development is underway to prevent access.

6.7.2 This area will be managed specifically to enhance the area for amphibians. Management will include cutting grassland once annually during May when the majority of amphibians will be in the water. Arisings will be removed from the grassland and stored in a designated compost heap sufficiently distant from the pond to prevent eutrophication. The compost heap will provide increased habitat diversity and potential hibernation and breeding habitat.

6.7.3 Woodland and scrub within this zone will be retained with minimum intervention unless works are required for health and safety reasons.

6.7.4 Selected blocks of trees will be retained throughout the site along boundaries to provide mature habitat linkage. These areas will remain unmanaged unless health and safety regulations require occasional branches to be cut. In all cases trees will be checked for bat potential prior to cutting to ensure no roost sites are lost.

Creation of new habitat that will mitigate for loss of existing habitat, enhance retained features and contribute to local biodiversity objectives

6.7.5 The following habitats will be created within the site:

- New tree and shrub planting
- Open Water
- Marsh
- Amenity Grassland
- Neutral Grassland
- Gardens

6.7.6 A combination of seeding and planting will be used in conjunction with natural colonisation and use of hay strewing, from a local source, where possible.

- 6.7.7 New tree and shrub planting will include species native to the local area
- Oak *Quercus robur*
 - Ash *Fraxinus excelsior*
 - Hawthorn *Crataegus monogyna*
 - Blackthorn *Prunus spinosa*
 - Hazel *Corylus avellana*
 - Field Maple *Acer campestre*
 - Silver birch *Betula pendula*
 - Crab apple *Malus sylvestris*
- 6.7.8 Some more ornamental species not locally native will be used within planting schemes. Where possible, these will be selected to provide value to local wildlife including spring and summer flowering insect attracting species and winter fruiting species. Examples include:
- Rowan *Sorbus aucuparia*
 - Laurel *Prunus laurocerasus*
 - Guelder rose *Viburnum opulus*
 - Cotoneaster species *Cotoneaster sp*
- 6.7.9 Tree and shrub planting will be used to create links from the canal corridor up through the central open space, which will also incorporate an interconnected succession of water bodies and wetlands.
- 6.7.10 Open water habitats will be created through the site creating linkage from east to west. These features will be designed to provide maximum value to nature conservation, including relatively deep central areas, over 1.5m, to prevent total colonisation by reeds, shallow sloping sides, scalloped edges and native species planting.
- 6.7.11 Marginal species used will include:
- Yellow flag iris *Iris pseudocarus*
 - Purple loosestrife *Lythrum salicaria*
 - Marsh marigold *Caltha palustris*
 - Soft rush *Juncus effusus*
 - Meadow sweet *Filipendula ulmaria*
 - Branched bur reed *Sparganium erectum*
 - Reed sweet grass *Glyceria maxima*

6.7.12 Aquatic vegetation will be left to establish naturally. Bank sides will be seeded with a species mix that is representative of wet meadows within the local area and will include:

- Greater bird's foot trefoil *Lotus pedunculatus*
- Oxeye daisy *Leucanthemum vulgare*
- Meadowsweet *Filipendula ulmaria*
- Ragged robin *Lychnis flos cuculli*
- Black knapweed *Centaurea nigra*
- Yarrow *Achillea millefolium*
- Common fleabane *Pulicaria dysenterica*
- Common bent *Agrostis stolonifera*
- Sweet vernal grass *Anthoxanthum odoratum*
- Tufted hair grass *Deschampsia caespitosa*
- Marsh foxtail *Alopecurus geniculatus*
- Creeping bent *Agrostis stolonifera*

6.7.13 Marsh will be created in conjunction with the open water areas. These will be created by either lowering the current levels closer to the water table or lining areas with butyl liner and depositing subsoil over the top to create poorly drained marsh land. These areas will either be left to naturally colonise or seeded with a species mix including:

- Soft rush *Juncus effusus*
- Hard rush *Juncus inflexus*
- Creeping bent *Agrostis stolonifera*
- Common fleabane *Pulicaria dysenterica*
- Water figwort *Schrophularia auriculata*
- Greater bird's foot trefoil *Lotus pedunculatus*

6.7.14 Amenity Grassland will be seeded with a commercial seed mix of sufficient durability to withstand the heavy use of these areas. The areas around the playing fields will undergo a combination of treatments including seeding with a fine grass mix to allow opportunities for natural colonisation of herb species and use of soil that has been stripped from the botanically diverse areas of the site. Mixes should include the following:

- Common bent *Agrostis capillaris*
- Crested dog's tail *Cynosurus cristatus*
- Timothy *Phleum pratense*
- Red fescue *Festuca rubra*

- Sweet vernal grass *Anthoxanthum odoratum*

6.7.15 Neutral Grassland will be created in areas that are not used for sports pitches that border the wetland and marsh areas. These areas will under go a combination of treatments including seeding with a fine grass mix to allow opportunities for natural colonisation of herb species and use of soil that has been stripped from the botanically diverse areas of the site. The possibility of locally sourced green hay strewing will also be looked into. Grass mixes should include the following:

- Common bent *Agrostis capillaris*
- Crested dog's tail *Cynosurus cristatus*
- Timothy *Phleum pratense*
- Red fescue *Festuca rubra*
- Sweet vernal grass *Anthoxanthum odoratum*

6.7.16 Gardens will be planted with species that will provide a combination of early and late flowering plants and shrubs that will be of value to local wildlife providing insect attracting flowers and winter fruiting species for birds. Species selected should incorporate a large percentage of the former including:

- Rowan *Sorbus aucuparia*
- Silver birch *Betula pendula*
- Butterfly bush *Buddleja davidii*
- Cherry laurel *Prunus laurorcerasus*
- *Nemophila sp*
- *Limnanthes sp.*
- *Soladago canadensis*
- *Aster sp.*
- *Cotoneaster horizontalis*
- *Hedera helix*
- *Lonicera sp.*
- *Rosa sp*
- *Malus sp.*
- *Viburnum opulus*
- *Ilex aquifolium*

- 6.7.17 Areas of bareground and south facing slopes will be retained within the development to enable colonisation by ruderal and ephemeral/short perennial vegetation, which will provide habitats for invertebrates to colonise.

Principles of Management for Retained and Created Habitats

- 6.7.18 Management of the site should be co-ordinated through a management company and will include a combination of low intensity management in the majority of newly created habitats and more intense management along footpaths and on sports pitches. A detailed management strategy for retained and created habitats will be produced in due course but will include:

- Twice annual cuts of neutral grassland and removal of arisings, cuts will only be carried out in spring or late summer.
- Annual clearance during November of one third of vegetation from open water areas to prevent succession to marsh
- Rotational cutting of bank side vegetation cutting up to one third of each bank per year
- Tree management for health and safety purposes
- Creation of bare ground by removal of small areas of vegetation to continue to provide a diversity of habitats for invertebrates
- Weekly rubbish clearance and inspection of all open areas

Protection of statutorily protected species and retention and enhancement of their habitats

- 6.7.19 A badger sett is located in the south of the site and consists of five active holes. Apart from the sett not much evidence of badger was recorded across the site although habitats present are suitable for use by this species providing good potential foraging areas.

- 6.7.20 Badgers are protected under the Protection of Badgers Act 1992. In order to ensure that no offence is committed under this act a licence will be applied for from English Nature to allow works within 30m of the sett between July and November. Type of work will be restricted with nothing more than hand tools being allowed within the 10m zone. If this solution is not practical due to the requirement to use much heavier machinery within this area the sett may require closure. If this were the case an artificial sett would be provided several months in advance of the closure. This would be located within the southern area of the site. Once evidence of use of the artificial sett is recorded the existing sett would be closed within the licensable period (July to November).

6.7.21 The general design of the site will provide this species with links from the southern area of the site to the canal corridor and across the site. Habitats that will provide foraging and links to the wider area include the unmanaged grassland, scrub and trees.

6.7.22 Great crested newts have not been recorded in the latest surveys of the site. A watching brief will be maintained during the development process. Further surveys will be undertaken prior to any start of works. If a great crested newt is found development will be stopped, a license applied for and suitable mitigation imposed, including fencing and trapping prior to start of works, to allow development to proceed. Current development proposals ensure that the existing pond is maintained and enhanced and that links are provided across the site with additional suitable habitat for this species.

Integration of Retained Features into Proposed Development Providing Areas That will be Valued and Maintained by Local Residents

6.7.23 The major retained feature within the new development area will be the pond in the south western corner of the site. In order to ensure that this area does not become degraded through increased access and litter dropping an interpretation board will be erected on the eastern and western side of the site at the main access from the development area and at the access point from the existing main road. This will detail the value of the area in general terms including species of flora and fauna found within the area.

Maintenance and enhancement of links into other local green spaces and the wider countryside

6.7.24 There are two existing green links through the site. One runs from the canal up to the north of the site and one runs along the bottom of the site along the canal. Both of these links will be retained through the development.

6.7.25 The course of the north south link will be maintained through creation of neutral grassland and tree planting. Its location will be slightly altered.

6.7.26 The link along the canal will be enhanced through habitat creation and enhancement detailed in the separate canal strategy.

6.7.27 An additional link will be created from east to west across the centre of the site. This will include neutral grassland, amenity grassland, shrubs, trees and open water habitats and will provide linkages across the site for mammals, invertebrates and flora. These are all detailed on the masterplan.

General

6.7.28 Japanese knotweed will be eradicated from the site using a combination of chemical and mechanical treatment. This process is already underway.

6.7.27 - Table 6.2: Impact significance after mitigation

Habitat/species of Interest Reference where applicable	Impact	Level of value	Impact Significance	Duration	Impacts after Mitigation
Loss of Ephemeral/short perennial and semi-improved	Habitat loss	Regional	Major Negative	Long-term	Minor negative
Loss of plantation woodland	Habitat loss and destruction of sett/disturbance	District	Moderate negative	Long-term	Minor negative
Loss of habitat for invertebrates	Habitat loss: Ephemeral/short perennial, semi-improved grassland and water bodies	Regional	Moderate negative	Long-term	Moderate negative
Disturbance of breeding birds	Construction works and operation	District	Minor Negative	Short-term	Minor negative
Loss of habitat for breeding birds	Habitat loss	Parish	Minor negative	Long-term	Minor negative
Degradation of habitats due to soil run-off and accidental pollution	Construction works and operation	Regional	Minor /Major Negative	Short-term	Insignificant
Site of Local Nature Conservation Importance	Habitat Loss	District	Minor/moderate negative	Long-term	Moderate negative

6.8 RESIDUAL IMPACTS

6.8.1 The majority of residual impacts are minor, there are not expected to be any cumulative or interactive impacts. There are only two potentially moderate adverse impacts. The first is the loss of the Site of Local Nature Conservation Importance (SLINC) and the second is the loss of habitat for invertebrates using the site. The habitat creation within the area will not fully compensate for the loss of these areas for invertebrates. It should also be noted that Japanese knotweed will be eradicated as part of the proposed development. This is considered to be a positive residual impact.

6.9 STATEMENT OF EFFECTS

6.9.1 The site supports a mix of habitats including ephemeral/short perennial and ruderal vegetation, hard standing, semi-improved grassland, amenity grassland, scrub, semi-mature trees and standing open water.

6.9.2 No statutory protected sites are present within, immediately adjacent to or within 2km of the site.

6.9.3 One non-statutory local wildlife site is located within the site. This is currently degraded but will be lost to the development. Mitigation for loss of this site includes creation of a mix of new habitats.

6.9.4 Badger is the only fully protected species present on the site, the extent of use of the sett within this area is low. A licence may need to be applied for if works are to be carried out within 30m of this sett or if the sett requires closure due to the proximity of works. If this is the case an artificial sett will be provided prior to closure.

6.9.5 No European protected species were recorded as resident in any areas to be lost. Common pipistrelle bat, a species protected under British and European legislation has been recorded using the site to move and forage across. New habitat links will be created to provide flyways and foraging for this species. Great crested newts have not been recorded as currently present on the site; surveys will be updated prior to start of works to ensure no offence is committed. If Great crested newts are found at any point appropriate mitigation and licensing will be implemented.

6.9.6 A number of red BoCC list bird species have been recorded using the site. The majority of habitats used by these species will be lost. New habitats will be created in compensation for this loss.

- 6.9.7 The most important habitats on the site are the semi-improved grassland, ephemeral short perennial vegetation and pond, these areas support a diverse flora and several nationally scarce invertebrates. The majority of these habitats will be lost. Compensation for loss of these habitats includes creation of new areas of open water, open grassland, bare ground, scattered scrub, standard trees and varied topography. Residual impacts on invertebrates after mitigation for loss of these habitats are considered to be moderate.
- 6.9.9 Japanese knotweed is present across large areas of the site. This species is currently being eradicated from the site. Impacts are considered to be positive.
- 6.9.8 The majority of impacts after mitigation are considered to be minor negative or minor positive. The only moderate impacts are the loss of the SLINC and the regionally important habitats as referred to above which are not locally designated sites but are of importance because of their nationally scarce invertebrate species.