PLANNING DESIGN ENVIRONMENT

ST JULIES CATHOLIC HIGH SCHOOL
LIVERPOOL
Ecological Assessment Report

TEP Reference: 5041.001
March 2015
Version 2.0

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1.0 SUMMARY

1.1 TEP was commissioned by Kier Construction Northern in February 2015 to undertake an ecological assessment of St Julies Catholic High School.

1.2 An ecological assessment consisting of a desktop study; Phase 1 habitat survey and daytime bat roost assessment was undertaken in order to inform planning permission for the re-development of the site.

1.3 Desktop searches revealed no statutory designated sites within 1 km of the site, however there are four sites with are currently Local Wildlife Sites or proposed. Woolton Manor, Woolton Woods and Camp hill potential LLWS is located adjacent to the northern and western boundaries of the site. Best practice measures should be implemented both during works and post-development to ensure no indirect impacts on this woodland. These should include the retention of the protective fencing and standard pollution control measures to prevent any adverse impacts.

1.4 The scattered trees, introduced shrub and areas of scrub within the site offer nesting opportunities for birds. Nesting birds are protected by law and any works to these habitats should be avoided within the bird breeding season (March to August inclusive). If works are necessary within this period, a nesting bird check should be undertaken by a suitably qualified ecologist within 24 hours prior to works. No other trees affected by the proposals have potential for bats and are classed as Category 3 trees.

1.5 Trees T8 and T32 will be affected by the proposals and have category 1/ 2 potential for roosting bats. An aerial inspection will be required in the first instance prior to any works. This may rule out the presence of roosting bats (and the tree(s) can be downgraded to Category 2 with no further survey requirements) or it may identify the need for further survey (the tree(s) will be upgraded to Category 1). Category 1 trees would require three dusk emergence/dawn re-entry surveys between May and September prior to works.

1.6 There are no implications for the development in relation to amphibians, reptiles, otter or water vole.

1.7 There are eight buildings on site, however the re-development is proposed over four phases. Phases 1 and 2 involves demolition or partial demolition of buildings B2-6 in Spring/summer 2015. Phase 3 includes construction of the new school building and Phase 4 includes the demolition of the remaining school buildings B1-3, B5, B7 and B8. The following apply:

Phases 1 and 2 (Spring/ Summer 2015)

1.8 Emerging bluebell were identified on site, which will require species level identification when in flower (between April and May). If the species is confirmed to be native, the stands will be relocated to a suitable woodland habitat under the supervision of a suitably qualified ecologist.

1.9 Signs of badger were found within 10m of the site boundary within the woodland. However the evidence was approximately 40m away from the building demolition works and a metal fence is present that separates the woodland and the school site. Therefore, badgers are unable to access the school site and will not be adversely impacted by the proposals in Phase 1-3.

1.10 Two of the five buildings to be demolished in Phase 1 and 2 have low potential for bats (B3 and B5). The following measures must be undertaken prior to works:

- One dusk or dawn re-entry survey undertaken between Mid-May and August 2015 prior to any demolition works on site;

- Provided no roosting bats are identified, the buildings can be demolished using Reasonable Avoidance Measures with soft destruction. The roosting features, i.e. wooden cladding, will be removed under the supervision of a licensed bat ecologist. As the cladding is removed, any suitable crevice or gap will be carefully inspected using an endoscope by the licenced bat ecologist. If a roosting bat is encountered at any stage, all works must cease and advice sought from the licenced bat ecologist.

- Following the pre-works inspection, once the wooden cladding is removed from the eaves, the building(s) can be demolished.

Phase 4 (Spring 2017)

1.11 As signs of badger were found within 10m of the Phase 4 proposed demolition works, a badger activity survey would be required in 2016, to assess the level of badger activity and potential disturbance. If badger activity is confirmed a licence would be required to carry out these works.

1.12 Five of the six buildings to be demolished in Phase 4 have potential for roosting bats. The following measures must be undertaken:

- One dusk or dawn re-entry survey of Buildings B1, B3, B5 is undertaken between Mid-May and August 2016 prior to any demolition works on site;

- Two dusk or dawn re-entry surveys of Buildings B7 and B8 are undertaken between Mid-May and August 2016 prior to any demolition works on site;

- Provided no roosting bats are identified during the dusk or dawn re-entry survey, the buildings can be demolished using soft destruction and Reasonable Avoidance Measures. The roosting features, e.g. wooden cladding, roof tiles, ridge tiles and wooden/boxed soffits will be removed under the supervision of a licensed bat ecologist. Any suitable crevice or gap will be carefully inspected using an endoscope by the licenced bat ecologist. If a roosting bat is encountered at any stage, all works must cease and advice sought from the licenced bat ecologist.

- Following the pre-works inspection and soft destruction measures, the building(s) can be demolished.

2.0 INTRODUCTION

2.1 In February 2015 TEP was commissioned by Kier Construction Northern to undertake an ecological assessment of St Julies Catholic High School in Liverpool.

2.2 The ecological assessment consists of a:

- Desktop Study;
- Phase 1 Habitat Survey;
- Daytime Bat Roost Assessment.

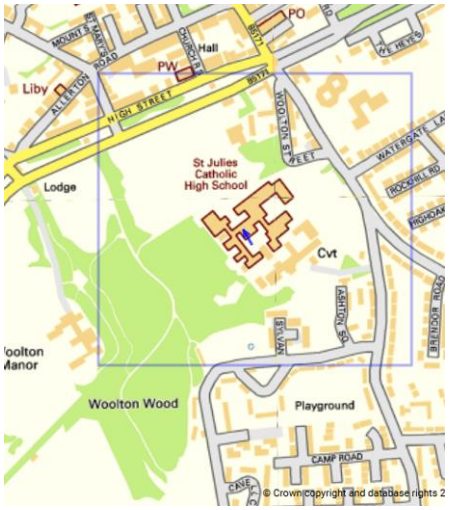
2.3 The ecological assessment is required to inform planning permission to re-develop the school. The re-development will be undertaken in two phases and includes demolition of existing buildings and construction of new buildings. The proposals are shown in Drawing 1206-101D.

2.4 The objectives of this report are to:

- Detail the methods and results of the above surveys;
- Identify features of ecological value within the site and potential constraints for development proposals;
- Provide recommendations for maintaining net biodiversity value at the site and identify where opportunities may exist to provide biodiversity enhancement.

2.5 The site is situated off Speke Road in Woolton, Liverpool. The site is an active high school and is bordered by woodland to the north and west, recreational open space to the east and residential areas to the south. Figure 1 shows the location of the site with a central grid reference of SJ 424 864.

Figure 1: Site location and landscape context



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2.6 The site is predominantly hard standing and buildings with limited habitats consisting of ornamental planting, amenity grassland and scattered trees within the red line site boundary.

2.7 There are eight buildings comprising St Julies Catholic High School, some of which are connected by corridors and covered walkways. The building locations and references are shown on the Phase 1 Habitat Map G5041.001A.

3.0 METHODS

Desktop Study

3.1 The desktop survey was undertaken by reviewing online sources and records obtained from the local record centre (Table 1).

Table 1: Ecological information and consultations

CONSULTEE/SOURCE OF INFORMATION	NATURE OF INFORMATION
Magic Map	Maps showing legally protected areas and designated sites & priority habitats
Where's the Path	Satellite & OS imagery
Merseyside BioBank	Designated sites and protected species records
MEAS (Merseyside Environmental Advisory Service)	Priority habitats and protected species

Phase 1 Habitat Survey

3.2 A Phase 1 habitat survey was completed by Candice Howe, *Grad*CIEEM, on 24th February 2015. The survey was carried out using the assessment methods set out in JNCC (2010) with habitat types and any incidental evidence of protected or invasive species noted. During the habitat survey, the site was assessed for its potential to support protected species. A 30m buffer of the site was searched (where access was permitted) for any signs of badger. Weather during the survey was dry and sunny with a temperature of 8.1˚C.

Limitations

3.3 The survey was undertaken outside during the optimum period for Phase 1 habitat surveys (late April to early October); however, the urban nature of the school site is likely to reduce the significance of this constraint, in this instance.

Daytime Bat Assessment

3.4 A daytime external and internal assessment of St Julies Catholic High School was completed by licensed bat ecologist Candice Howe (Reference: CLS03471) on the 24th February 2015. This inspection was undertaken in accordance with Bat Conservation Trust (BCT): Bat Surveys, Good Practice Guidelines (Hundt, 2012). There are no seasonal constraints to daytime bat surveys.

3.5 The daytime assessment was completed to identify actual or likely presence of bats and to determine how bats may use the buildings. The exterior and interior of the buildings were searched for roosting bats and/or evidence of roosting bats, such as droppings, feeding remains, urine staining and scratch marks. The buildings were assessed for their potential to provide suitable roosting space according to the criteria outlined in Table 2. The locations of any potential access points were also identified.

Table 2: Bat Potential Building Categories (based on BCT Guidelines)

Potential Roost Value	Criteria	
High	*Several of the following features:*	Pre – 20th century buildings. Agricultural buildings of traditional brick, stone or timber construction or more modern buildings with slate or tile pitched roofs of traditional construction creating unobstructed flying spaces. Roof warmed by sun, in particular south facing roofs without shade. Roof timbers with gaps at joints (e.g. mortice joints), cracks, holes or creating cavities. Numerous access points for bats for bats to fly into. Buildings near woodland and/or water. Low levels of disturbance. Buildings are generally poorly maintained or otherwise the building characteristics create access points for bats into roof structures. Bridges or other structures with crevices. Not too draughty, wet or cool.
Moderate	*Some of the following features:*	
Low	Modern/intact buildings with few potential access points for bats. Brick buildings often with pitched roofs but which may have small or cluttered roof space. Flat roofed buildings with weatherboards or similar feature at the eaves with potential bat access behind or into building. Cooler, shaded, light or draughty voids. Buildings often lacking connectivity to woodland or areas of water.	
Negligible	Flat roof structures lacking weatherboards, hanging slates or cladding. Modern/intact buildings with no bat access points. Lacking connectivity to any woodland or areas of water. High levels of regular disturbance. High levels of internal/external lighting. Buildings in very poor condition such that internal spaces are not weatherproof, being exposed to high levels of light, wind and/or rain.	

3.6 The surrounding habitat was assessed for its potential to support roosting, foraging and commuting bats. The ecological appraisal included a ground-based assessment of the trees within the site boundary. This was carried out using binoculars (where appropriate) to search for any field signs of bats or features with bat roosting potential.

3.7 Most tree roosts are created by one or a combination of the following:

- Old woodpecker holes;
- Splits in trunk, bough or large branches;
- Rot holes in trunk, bough or large branches;
- Holes formed by two boughs or branches growing in contact;
- Loose or lifting bark; and
- Underneath a covering of dense latticed creeper, usually ivy (Hedera helix).

3.8 The criteria for tree roost assessment are based upon the BCT Guidelines (2012) as shown in Table 3.

Table 3: Bat Potential Tree Categories (BCT, 2012)

Confirmed	A tree where positive signs are found; e.g. emerging bats, droppings found or pre-emergence sounds heard.
Category 1*	Supporting larger roosts and situated in or near good foraging habitat or near a good commuting route leading to such habitat.
Category 1	A tree that has definite features of potential for roosting bats, supporting fewer suitable features than Category 1* trees (above) or with potential for use by single bats but are less than ideal in some way, for example, may have cluttered access.
Category 2	A tree that has no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features that may have limited potential to support bats.
Category 3	A tree that has no potential to support roosting bats.

Limitations

3.9 No access was possible into the roof void of Building 7, due to the presence of a suspended ceiling and no access hatch. This is not considered a significant constraint, provided that nocturnal surveys of this building are undertaken prior to any works (if affected by proposals in Phase 2).

3.10 Bat droppings are one of the field signs the survey looks to identify as evidence of bat activity. Droppings on external surfaces can be washed or blown away by weather; therefore, lack of evidence during external surveys is not conclusive of absence of bats.

3.11 In some circumstances the visibility of features on tress from ground level is restricted and it becomes difficult to adequately assess how suitable the feature is for bats, e.g. depth and condition of a hole. Where this constraint has arisen, the trees have been categorised as 'Category 1 or 2' and will require a further inspection (through aerial survey) to determine whether a feature is suitable for use by roosting bats.

3.12 Following the aerial inspection, if the feature provides potential for bats the tree will be upgraded to category 1, whereas if the feature is unsuitable for bats (e.g. too damp or too shallow) the tree will be downgraded to Category 2.

4.0 RESULTS

Desktop Study

4.1 There are no nationally or internationally designated sites within 1km of the site boundary. Searches with Merseyside BioBank revealed one locally designated 'Liverpool Local Wildlife Site' (LLWS), Hillfoot Road & Simpsons Pavillion, which is located approximately 500m south west of the school.

4.2 Eric Hardy LNR and Clark Gardens is a proposed LLWS, which is located 500m west/south west of the site.

4.3 Woolton Manor, Woolton Woods and Camp hill is a potential LLWS, which is located adjacent to the site and extends along the northern boundary of the site. Land within Allerton Green Wedge is also a potential LLWS.

4.4 Protected species record searches identified a number of protected species within 1km of the site; these are shown in Table 4. Detailed results of the desktop study from

Merseyside BioBank can be found in Appendix 1 (Biodiversity Information Report 10/11/2014; MBB Ref: 115-ebsols).

Table 4: Protected Species Records Summary

Group	Common Name	Scientific Name	Records	Dates	Designations
amphibian	Common Frog	*Rana temporaria*	452	1995-2014	WCA5/9.5a,WCA5/9.5b
	Common Toad	*Bufo bufo*	3	1983-1999	WCA5/9.5a,WCA5/9.5b
	Smooth Newt	*Lissotriton vulgaris*	117	1996-2014	WCA5/9.5a,WCA5/9.5b
bird	Barn Owl	*Tyto alba*	1	1998	WCA1i
flowering plant	Bluebell	*Hyacinthoides non-scripta*	14	1978-2014	WCA8
insect - butterfly	Swallowtail	*Papilio machaon*	1	2013	WCA5/9.1k/l,WCA5/9.1t,WCA5/9.2,WCA5/9.4a,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
terrestrial mammal	Common Pipistrelle	*Pipistrellus pipistrellus*	19	2005-2014	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
	Eurasian Badger	*Meles meles*	1	1935	PBA
	Eurasian Red Squirrel	*Sciurus vulgaris*	6	1933-2008	WCA5/9.1k/l,WCA5/9.1t,WCA5/9.2,WCA5/9.4a,WCA5/9.4b,WCA5/9.5a
	Noctule Bat	*Nyctalus noctula*	2	1986-1988	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
	Pipistrelle Bat species	*Pipistrellus*	10	1985-1993	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c

Desig. Code	Desig. Name	Designation Description
WCA5/9.5a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5a)	Section 9.5 Animals which are protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part.
WCA5/9.5b	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5b)	Section 9.5 Animals which are protected from being published or advertised as being for sale.
WCA1i	Wildlife and Countryside Act 1981 (Schedule 1 Part 1)	Birds which are protected by special penalties at all times.

4.5 The site is situated in a relatively suburban environment and is surrounded by woodland to the north and west and recreational ground to the east. There are residential properties to the south and in the wider area.

4.6 The site is dominated by buildings and hardstanding with relatively few habitats present which consist of the following:

- Amenity Grassland
- Ornamental Planting
- Dense Scrub
- Scattered Trees
- Modified Neutral Grassland
- Species-poor Hedgerow

4.7 Brief descriptions of the key species and relative importance of the habitats are set out below and illustrated in Drawing G5041.001A.

Amenity Grassland

4.8 The school grounds include areas of well managed amenity grassland. The recreational area to the north east of the site is also dominated by amenity grassland. Amenity grassland is species-poor, intensively managed and of low ecological value with low structural and species diversity (Figure 2).

Figure 2: Amenity Grassland

Ornamental Planting

4.9 Alongside the amenity grassland there are several areas of ornamental planting throughout the site. These areas are of low ecological value; however the denser stands of ornamentals could potentially be used by nesting birds.

Dense Scrub

4.10 The recreational ground to the north east contains some dense scrub along the boundary wall, which is shown on G5041.001A. This scrub was dominated by bramble *Rubus fruticosus* agg. This type of habitat can provide nesting potential for birds (Figure 3).

Figure 3: Dense Scrub

Scattered Trees

4.11 There are numerous scattered trees within the site. Some of these trees provide potential use by birds and bats.

Modified Neutral Grassland

4.12 There is a very small area of modified neutral grassland in the north of the site. This was previously managed as amenity grassland, but has become overgrown.

Species-poor Hedgerow

4.13 One species-poor hedgerow runs along part of the south west site boundary, which can be seen in the background of Figure 2. The majority of the hedgerow consists of a line of mature *Leylandii*, however a small proportion of the hedgerow (nearest the southern tip of site) is dominated by privet *Ligustrum ovalifolium*. This hedgerow provides suitable nesting habitat for birds.

4.14 No invasive plant species were identified during the survey. Emerging bluebell was identified in the north of the site as indicated on the Phase 1 habitat Map (G5041.001A). As it was early in the season, it was not possible to identify if this was native bluebell.

Assessment of species of concern (excluding bats)

Birds

4.15 The survey was undertaken outside the nesting season, however old birds nest were noted in some of the scattered trees. Incidental sighting of robin *Erithacus rubecula* and blue tit *Cyanistes caeruleus* were noted during the survey.

Badgers

4.16 A badger hole was identified in the woodland area just outside the northern site boundary, approximately 10m from the school site boundary.

Figure 4: Badger Hole

Daytime Assessment of Buildings for bats

4.17 The results of this assessment are presented in Table 5. The building locations, references are illustrated in Drawing G5041.001A.

Table 5: Results of Daytime Building Assessment for Bats

Building Ref	Description and Evaluation	Photograph
B1	No evidence was found but the building has **low potential**. B1 is a block built school building with multiple storeys. The roof structure is flat with areas of wood cladding at the eaves. There are some gaps associated with the wooden cladding which provides limited potential access and roosting space for roosting bats. The window frames are wooden but well maintained with no gaps or crevices associated with them. There are no roof voids present, however a cellar was accessed and searched. There are no potential access points into the cellar.	 
B2	No evidence of roosting bats was found during the survey. The building has **negligible potential** for bats. This building is of a similar construction to B1, it is block built with multiple storey and a flat pre-fabricated roof structure. This building has pre-fabricated sheet cladding at the eaves which is unsuitable for roosting bats. The window frames are a mixture of wood and uPVC, with no gaps or crevices associated with them. There are no roof voids present. There is a sub-level boiler room under part of the building that was accessed. The boiler room has no potential access points for bats and there is no suitable roosting space within. A tank room is present, which is accessed via a hatch with ladders that is approximately 4 storey height. There are no potential access points present in the tank room and there is a lack of roosting space.	  

B3	No evidence was found but the building has **low potential**. B3 is a block built four storey school building with a flat prefabricated roof. The window frames are wooden but well maintained with no obvious gaps or crevice associated with them. There is some wooden cladding at the eaves of the building, which is warped in places and damaged in other places, creating potential access points for bats and roosting space. No roof void is present in this building.	 
B4	No evidence of roosting bats was found during the survey. The building has **negligible potential** for bats. This is a block school building with a prefabricated upper section that also forms the flat roof. There are no potential access point or roosting space. No roof voids are present in this building.	 
B5	No evidence was found but the building has **low potential**. B5 is a block built single storey school building with a flat prefabricated roof. The window frames are wooden but well maintained with no obvious gaps or crevices associated with them. There is wooden cladding at the eaves on some of the elevations of the building, which is warped in places creating potential access points for bats and roosting space. No roof void is present in this building.	 

B6	No evidence of roosting bats was found during the survey. The building has **negligible potential** for bats. This is a prefabricated single storey porta cabin. There are no potential access point or roosting space. No roof voids are present in this building.	
B7	No evidence was found but the building has **moderate potential**. B7 consists of a brick built single storey school building with a flat prefabricated roof and a pitched two storey block built 'chapel'. The window frames are a mixture of wood and uPVC but well maintained with no obvious gaps or crevices associated with them. There is wooden cladding at the eaves on some of the elevations of the building, which is warped in places creating potential access points for bats and roosting space. No roof void is present in the flat roofs section of the building. The pitched 'chapel' has a pantile roof with boxed eaves. The roof tiles appear well maintained, however there are gaps at the eaves. Internally, the chapel has a suspended ceiling and no access into the loft void, therefore an internal inspection of this void was not possible.	 

B8	No evidence was found but the building has **moderate potential**. B8 is a single storey brick school building with a flat prefabricated roof, with a pitched roof to the west and a hipped roof structure to the east. The roof is covered by artificial tiles, which are well-maintained and is boxed at the eaves. There is mortar missing at the roof edge which provide potential access points for bats. There is a circular, louvre vent on the west facing elevation, however this is covered with wire mesh which prevent any access. Although there are skylights in the roof, these are boxed internally and a roof void is present. Bitumen underlay is present beneath the roof tiles, providing a suitable roosting space for bats.	 

Ground Based Bat Assessment of Trees

4.18 Five trees may have potential for roosting bats as shown on the Phase 1 Habitat Map (G5041.001A). Of these trees, only T8 and T32 (see Drawing 1206-109C Tree Constraints and Retention plan) and will be affected the proposals. All the other trees to be affected by the proposals have no potential for roosting bats and are classed as Category 3 with due consideration of the BCT guidelines.

5.0 CONCLUSIONS

Designated Sites

5.1 Of the four locally designated (or proposed/potential) sites, only one is located in close proximity to the site with potential to be indirectly impacted. The Woolton Manor, Woolton Woods and Camp hill potential LLWS is separated from the school site by metal fencing which acts as a barrier and therefore the risk of impacting the site is significantly reduced.

Habitats and Plants

5.2 The habitats on site are relatively limited in terms of their ecological value and comprise predominantly hardstanding and buildings.

5.3 Emerging bluebell was identified on site, but it was not possible to conclusively identify to species level. It is therefore not possible to conclude if protected species (i.e. native bluebell) are present on site. Further surveys are required to determine if the stands present are native.

5.4 No invasive plant species are present on site.

Fauna

Birds

5.5 The scattered trees, ornamental shrub and scrub present on site provide potential habitat for nesting birds. Nesting birds are protected by law and any works to these habitats should be avoided within the bird breeding season (March to August inclusive).

Badger

5.6 Signs of badger were found within 10m of the school site boundary. A metal fence is present around the school boundary, which separates the woodland and the school site, preventing badgers from accessing the school site. No disturbance is anticipated during Phase 1 and 2 as the buildings proposed for demolition are located a sufficient distance from the location of the badger hole (approximately 40m) to ensure that indirect impacts due to noise and disturbance are highly unlikely.

5.7 The phase 4 demolition works will be located closer to the badger hole and therefore could potentially disturb badgers, dependant on their level of activity and other factors. Therefore, further badger activity surveys would be required to determine the level of impact.

Otter and Water Vole

5.8 There are no records of otter or water vole within 1km of the site and no habitat with potential to support otter was noted at this location. There are no implications for water voles or otter in relation to the proposals.

Amphibian and Reptiles

5.9 There are records of amphibians within 1km of the site, however there is no suitable breeding habitat within the site boundary. The hard standing could provide limited basking potential for reptiles however it is considered unlikely that reptiles would be present due to the relatively urban locality and there is a lack of connectivity to the wider countryside.

Bats

5.10 There are records of noctule and pipistrelle bat species within 1km of the site. No evidence of bats was identified during the daytime assessment, however five of the eight buildings to be demolished have potential for bats. Two buildings have moderate potential for bats (B7 and B8) and three buildings have low potential for bats (B1, B3 and B5).

Phase 1 and 2

5.11 The following buildings will be affected by the Phase 1 and 2 demolition proposals:

- Small section of B2 to the west (negligible potential).
- Small, single storey section of B3 to the west (low potential);
- B4 (negligible potential);
- Northern section of B5 (low potential);
- Building B6 (negligible potential);

5.12 Further surveys will be required in spring/summer 2015 in order to establish the presence or likely absence of bats in Buildings B3 and B5.

Phase 3

5.13 This involves the construction of the new building only and will not impact on buildings with bat potential.

Phase 4

5.14 The following buildings will be affected by Phase 4 demolition proposals:

- Building B1 (low potential);
- Remainder of B2 (negligible potential);
- Remainder of B3 (low potential);
- Building B7 (moderate potential); and
- Building B8 (moderate potential).

5.15 Further surveys will be required in spring/summer 2016 in order to establish the presence or likely absence of bats in the above buildings.

5.16 Trees T8 and T32 may have potential for roosting bats and will require aerial inspection prior to any works.

6.0 RECOMMENDATIONS

6.1 Due to the close proximity of the Woolton Manor, Woolton Woods and Camp hill potential LLWS, best practice measures should be implemented both during works and post-development to ensure no indirect impacts on this woodland. These should include the retention of the protective fencing and standard pollution control measures to prevent any adverse impacts.

6.2 A further survey will be required between April and May 2015 to conclude if the emerging Bluebell species are native. If this is confirmed, the stands will require translocation to a suitable woodland habitat in close proximity. The translocation will be carried out under the supervision of a suitably qualified ecologist.

6.3 If any clearance of shrub, scattered trees or building demolition, is undertaken during the nesting bird season then a nesting bird check will be required. All nesting bird checks should be undertaken by a suitably qualified ecologist within 24 hours prior to works. The provision of replacement nesting habitat will be required to compensate for the loss of potential nesting sites in the existing buildings and vegetation. This could be accommodated within the new build itself, or nesting boxes could be erected on retained trees within the site. Examples are given in Appendix 2.

6.4 As signs of badger were found within 10m of the Phase 4 proposed demolition works, a badger activity survey would be required in 2016, to assess the level of badger activity and potential disturbance.

6.5 Trees T8 and T32 will be affected by the proposals and have category 1/ 2 potential for roosting bats. An aerial inspection will be required in the first instance prior to any works. This may rule out the presence of roosting bats (and the tree(s) can be downgraded to Category 2 with no further survey requirements) or it may identify the need for further survey (the tree(s) will be upgraded to Category 1). Category 1 trees would require three dusk emergence/dawn re-entry surveys between May and September prior to works.

6.6 As a number of buildings provide either low or moderate potential for bat roosting, measures must be undertaken to establish presence or likely absence of bats, as follows:

Phases 1 and 2 (Spring/ Summer 2015)

6.1 Two of the five buildings to be demolished in Phase 1 and 2 have low potential for bats (B3 and B5). The following measures must be undertaken prior to works:

- One dusk or dawn re-entry survey undertaken between Mid-May and August 2015 prior to any demolition works on site;
- Provided no roosting bats are identified, the buildings can be demolished using Reasonable Avoidance Measures with soft destruction. The roosting features, i.e. wooden cladding, will be removed under the supervision of a licensed bat ecologist. As the cladding is removed, any suitable crevice or gap will be carefully inspected using an endoscope by the licenced bat ecologist. If a roosting bat is encountered at any stage, all works must cease and advice sought from the licenced bat ecologist.
- Following the pre-works inspection, once the wooden cladding is removed from the eaves, the building(s) can be demolished.

Phase 4 (Spring 2017)

6.2 Five of the six buildings to be demolished in Phase 4 have potential for roosting bats. The following measures must be undertaken:

- One dusk or dawn re-entry survey of Buildings B1, B3, B5 is undertaken between Mid-May and August 2016 prior to any demolition works on site;

- Two dusk or dawn re-entry surveys of Buildings B7 and B8 are undertaken between Mid-May and August 2016 prior to any demolition works on site;

- Provided no roosting bats are identified during the dusk or dawn re-entry survey, the buildings can be demolished using soft destruction and Reasonable Avoidance Measures. The roosting features, e.g. wooden cladding, roof tiles, ridge tiles and wooden/boxed soffits will be removed under the supervision of a licensed bat ecologist. Any suitable crevice or gap will be carefully inspected using an endoscope by the licenced bat ecologist. If a roosting bat is encountered at any stage, all works must cease and advice sought from the licenced bat ecologist.

- Following the pre-works inspection and soft destruction measures, the building(s) can be demolished.

6.7 In the unlikely event that bats are encountered at any time during inspections prior to or during the works, works will cease and the advice of the bat ecologist will be sought.

6.8 Bat boxes should be installed on suitable elevations of the new building or on suitable trees to compensate for the loss of the roosting opportunities for bats. Examples of bat boxes are given in Appendix 2.

6.9 Relatively simple modifications in the design of the new build can mitigate and enhance roosting opportunities on site. Small gaps (15-20mm) between weather boarding and exterior walls are sufficient to provide access points for bats. The use of breathable roofing membrane as underfelt should be avoided as research shows that bats can become tangled in the fibres.

Biodiversity Enhancement Opportunities

6.10 Under the National Planning Policy Framework (NPPF), there is a requirement to minimise impacts on biodiversity, and seek to provide net gains in biodiversity where possible.

6.11 Biodiversity within the site could be enhanced by including a mix of wildlife friendly species into the planting scheme. Native species ideally of local stock should be used. Species could include hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), dog wood (*Cornus sanguinea*) and hazel (*Corylus avellana*). Landscaping should prioritise maintaining and or enhancing potential wildlife corridors.

6.12 Depending on the scope for future development, green trellising using ivy (*Hedera helix*), honeysuckle *Lonicera periclymenum* or other scented and berry producing climbers could be installed on buildings, boundary walls or fences within the site to provide additional foraging and sheltering opportunities for insects, birds and bats.

7.0 REFERENCES

COLLINS, B. J. (2005) ESTABLISHING THE ROLE OF MITIGATION ADVICE AND IT IMPLEMENTATION IN THE SUCCESS OF BAT CONSERVATION FOLLOWING DEVELOPMENT OR BUILDING MAINTENANCE WORK. UNPL, UNIVERSITY OF MANCHESTER.

ENGLISH NATURE (2004) *Bat mitigation guidelines*. English Nature, Peterborough.

HUTSON, A. M. (1993) *Action plan for conservation of bats in the United Kingdom*, The Bat Conservation Trust, London.

GUNNELL, K., GRANT, G. AND WILLIAMS, C. (2012) Landscape and Urban design for bats and biodiversity. Bat Conservation Trust

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd Edition, Bat Conservation Trust

JOINT NATURE CONSERVATION COMMITTEE (1999) '*Bat workers manual'* (eds: Mitchell-Jones, A. J. & McLeish, A. P.) JNCC, Peterborough

INSTITUTE OF ECOLOGY AND ENVIRONMENTAL MANAGEMENT (2012). *GUIDELINES FOR PRELIMINARY ECOLOGICAL APPRAISAL*

JOINT NATURE CONSERVATION COMMITTEE (2010) *PHASE 1 HABITAT SURVEY*. JNCC. PETERBOROUGH

APPENDIX 1.
Biodiversity Information Report 10/11/2014; Merseyside BioBank Ref: 115-ebsols

Biodiversity Information Report 10/11/2014

MBB reference: 1155-ebsols

Site: St Julies School

The Local Biodiversity Records Centre for North Merseyside

Merseyside BioBank,
Estate Barn, Court Hey Park
Roby Road, Liverpool
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Tel: 0151 737 4150
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Your Ref: EBS-Woolton1114	MBB Ref: 1155-ebsols	Date: 10/11/2014
Your contact: Bill Gaudie	MBB Contact: Ben Deed	

Merseyside BioBank biodiversity information report

These are the results of your data request relating to **an area at St Julies School defined by a buffer of 1000 metres around the centre of grid reference SJ424863**.

You have been supplied with the following:

- records of **protected** taxa that intersect the search area
- records of **BAP** taxa that intersect the search area
- records of **Red Listed** taxa that intersect the search area
- records of other '**notable**' taxa that intersect the search area
- records of WCA schedule 9 taxa (including '**invasive plants**') that intersect the search area
- a map showing the location of monad and tetrad references that overlap the search area
- a list of all **designated sites** that intersect your search area
- citations, where available, for intersecting Local Wildlife Sites
- a list of **other sites of interest** (e.g. Ancient Woodlands) that intersect your search area
- a map showing such sites
- a list of all **BAP habitats** which intersect the search area
- a map showing BAP habitats
- a summary of the area for all available mapped **Phase 1 and/or NVC habitats** found within 500m of your site
- a map showing such habitats

Merseyside BioBank (MBB) is the Local Records Centre (LRC) for North Merseyside. We collect and collate biological and environmental information and make it available to people and organisations that have need to access such information in North Merseyside. We promote the North Merseyside Biodiversity Action Plan and wider participation in conservation through education, community involvement and by supporting the biological recording community of North Merseyside.

Merseyside BioBank is an information node of the National Biodiversity Network (NBN) and integrate records from our own databases with those of the NBN Gateway. These services are currently accessing Gateway 4 and in the process of being upgraded in order to access Gateway 5.

The handling charge for this data request is not a charge for the data themselves, but rather a partial charge for the staff time required to service the request. Our annual income from data requests is something less than 20% of our total running costs.

Species records

The biological records held by Merseyside BioBank come from a variety of sources; from large organisations to individual amateur naturalists. Merseyside BioBank operates as managers or custodians of these records but the individuals and groups, who provide their records free of charge, retain copyright on their data. Without their contribution, we would not be able to provide the records included in this report. Their efforts, expertise and goodwill make a substantial contribution to the protection of North Merseyside's biodiversity.

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You may only use the records in this document subject to our access terms and conditions which can be found in Appendix 1. Non-adherence to these terms and conditions will be viewed as a breach of contract, which may result in legal redress being sought.

This report also integrates records from the NBN Gateway. Some NBN data providers give us permission to download and integrate their records at a higher resolution than available through public access in order to contribute to the protection of North Merseyside's biodiversity.

Details of the biological records summarised in the following tables, and the sources from which they are derived, have been provided separately. Note that the date ranges in the summary tables (headed 'Dates') show the earliest and latest years for which records have been summarised for each taxon.

UK Protected Species

'UK Protected species' are those taxa specifically identified by UK legislation including: Wildlife & Countryside Act 1981 (as amended); Protection of Badgers Act 1992; Conservation of Habitats and Species Regulations 2010. The latter regulations enact the European Union's (EU) Habitats Directive (92/43/EEC) in the UK and supercede The Conservation Regulations 1994. In our list of protected species, you may see designations that refer to schedules in the 1994 regulations, but these remain unchanged under the 2010 regulations.

Some protected species may not be legally disturbed unless you are in possession of an appropriate license. If you are in any doubt as to whether or not a license is required, you should contact Natural England.

The following tables detail the protected species that were recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
amphibian	Common Frog	*Rana temporaria*	452	1995-2014	WCA5/9.5a,WCA5/9.5b
	Common Toad	*Bufo bufo*	3	1983-1999	WCA5/9.5a,WCA5/9.5b
	Smooth Newt	*Lissotriton vulgaris*	117	1996-2014	WCA5/9.5a,WCA5/9.5b
bird	Barn Owl	*Tyto alba*	1	1998	WCA1i
flowering plant	Bluebell	*Hyacinthoides non-scripta*	14	1978-2014	WCA8
insect - butterfly	Swallowtail	*Papilio machaon*	1	2013	WCA5/9.1k/l,WCA5/9.1t,WCA5/9.2,WCA5/9.4a,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
terrestrial mammal	Common Pipistrelle	*Pipistrellus pipistrellus*	19	2005-2014	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
	Eurasian Badger	*Meles meles*	1	1935	PBA
	Eurasian Red Squirrel	*Sciurus vulgaris*	6	1933-2008	WCA5/9.1k/l,WCA5/9.1t,WCA5/9.2,WCA5/9.4a,WCA5/9.4b,WCA5/9.5a
	Noctule Bat	*Nyctalus noctula*	2	1986-1988	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c
	Pipistrelle Bat species	*Pipistrellus*	10	1985-1993	HabRegs2,WCA5/9.4b,WCA5/9.5a,WCA5/9.5b,WCA5/9.4c

Desig. Code	Desig. Name	Designation Description
WCA5/9.5a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5a)	Section 9.5 Animals which are protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part.
WCA5/9.5b	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5b)	Section 9.5 Animals which are protected from being published or advertised as being for sale.
WCA1i	Wildlife and Countryside Act 1981 (Schedule 1 Part 1)	Birds which are protected by special penalties at all times.

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WCA8	Wildlife and Countryside Act 1981 (Schedule 8)	Plants which are protected from intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
WCA5/9.1k/l	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (killing/injuring))	Section 9.1. Animals which are protected from intentional killing or injuring.
WCA5/9.1t	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (taking))	Section 9.1 Animals which are protected from taking.
WCA5/9.2	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.2)	Section 9.2 Animals which are protected from being possessed or controlled (live or dead).
WCA5/9.4a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4a)	Section 9.4 Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection.
WCA5/9.4b	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4b)	Section 9.4 Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.
WCA5/9.4c	Wildlife and Countryside Act 1981 (Schedule 5)	Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.
HabRegs2	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 2)	Schedule 2- European protected species of animals.
PBA	Protection of Badgers Act (1992)	The Protection of Badgers Act 1992 protects badgers from taking, injuring, killing, cruel treatment, selling, possessing, marking and having their setts interfered with, subject to exceptions.

North Merseyside BAP Species

The North Merseyside Biodiversity Action Plan (NM BAP) was published in September 2001 and last reviewed in 2008. Like other Local Biodiversity Action Plans (LBAPs) its purpose is to focus local conservation on national priority species and habitats. However, LBAPs also embrace the idea of 'local distinctiveness' and species which are not considered UK conservation priorities can be catered for by LBAPs if they are of particular local significance. Such is the case with the NM BAP which currently names 74 species of which 57 are not conservation priority species but are included because their conservation is considered to be a priority in North Merseyside.

The following tables detail the North Merseyside BAP species that were recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
bird	House Martin	*Delichon urbicum*	3	1997-1999	LBAP
	House Sparrow	*Passer domesticus*	31	1997-2001	LBAP
	Lapwing	*Vanellus vanellus*	1	1997-1999	LBAP
	Song Thrush	*Turdus philomelos*	4	1997-1999	LBAP
	Starling	*Sturnus vulgaris*	4	1997-1999	LBAP
	Swift	*Apus apus*	3	1997-1999	LBAP
flowering plant	Bluebell	*Hyacinthoides non-scripta*	14	1978-2014	LBAP
insect - dragonfly (Odonata)	Broad-bodied Chaser	*Libellula depressa*	1	2011	LBAP
	Brown Hawker	*Aeshna grandis*	2	1999	LBAP
	Common Darter	*Sympetrum striolatum*	8	1996-2013	LBAP
	Emperor Dragonfly	*Anax imperator*	1	2007	LBAP
	Large Red Damselfly	*Pyrrhosoma nymphula*	1	1997	LBAP
	Southern Hawker	*Aeshna cyanea*	1	2001	LBAP
terrestrial mammal	Bats	*Chiroptera*	8	1981-2012	LBAP
	Brown Hare	*Lepus europaeus*	1	1998	LBAP
	Common Pipistrelle	*Pipistrellus pipistrellus*	19	2005-2014	LBAP
	Eurasian Red Squirrel	*Sciurus vulgaris*	6	1933-2008	LBAP
	Noctule Bat	*Nyctalus noctula*	2	1986-1988	LBAP
	Pipistrelle Bat species	*Pipistrellus*	10	1985-1993	LBAP

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Desig. Code	Desig. Name	Designation Description
LBAP	North Merseyside BAP	Species that are incorporated within the North Merseyside Biodiversity Action Plan. These species may or may not also be UK BAP species. Some species have their own action plans within the NM BAP, others are members of group species action plans.

NM BAP species: Urban Birds (*Delichon urbicum; Passer domesticus; Sturnus vulgaris; Apus apus*)
The four species covered by the NM BAP Urban Birds Species Action Plan (House Martin, Swift, House Sparrow and Starling) are considered to be in significant decline across the UK. In North Merseyside House Sparrows and Starlings currently breed in all urban areas, while House Martins are restricted to areas nearer sources of mud for nest-building. Swifts occurred in only 55 tetrads during 1997-2000.

Urban bird numbers are thought to relate strongly to the availability of prey species, and nesting opportunities.

Declines are most likely caused by the reduction in the diversity and abundance of invertebrate prey species resulting from increased 'tidiness' in our parks and gardens, the use of pesticides and other changes in farm practices. The exclusion of urban birds from breeding in or around modern buildings reduces nesting opportunities for urban birds.

NM BAP species: Lapwing (*Vanellus vanellus*)
Between 1987 and 1998 Lapwing declined by 48% in England and Wales with Wales and the SW of England showing greatest loss. Two thirds of the population is now resident in the N and NW of England.

Locally this species continues to breed in all suitable habitats and the 2002-03 surveys indicated a population of around 1,500 pairs with arable farmland and pockets of grassland being particularly favoured.

Local threats are thought to include development in nesting areas, increasing recreation and disturbance, scrub encroachments on coastal grassland and changes in farm practice towards silage production, livestock and agricultural intensification.

NM BAP species: Song Thrush (*Turdus philomelos*)
Although still widespread, Song Thrush declined sharply by around 73% in farmland (mid 1970s) and 49% in woodland (1968-1993), while overall UK numbers fell by 50% between 1970 and 2005. The North of the UK is thought to have been hit hardest.

In North Merseyside, though thinly distributed, Song Thrush still breed in most areas with an estimated 500 pairs during 1997-2000. Highest breeding concentrations were found to occur in suburban areas where abundant garden and parkland habitats were present.

Song Thrush are reliant on a variety of habitats to meet their needs at different times of the year and loss of these habitats is causes a reduction in numbers.

Local factors in the decline of the species include changes in farm practices that remove nesting habitat (hedgerows and dense scrub), limit the abundance of winter food (changes in sowing, cropping and use of herbicides/molluscicides) or cause the loss of feeding habitat (use of pesticides/herbicides and monocropping).

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NM BAP species: Bluebell (*Hyacinthoides non-scripta*)
British Bluebells make up about 20% of the global population of *Hyacinthoides non-scripta* and are often found in humid woodland habitat, along hedgerows and on occasion along the coast. Locally there are a number of good colonies.

Local threats to the species include possible over-shading in un-managed woodlands, localised trampling by the public in popular areas and hybridisation with the Spanish Bluebell. On a national scale declines are cause by the loss of woodland habitat, grazing by introduced Muntjac, collection of plants and hybridisation with Spanish Bluebell.

NM BAP species: Dragonflies (*Libellula depressa; Aeshna grandis; Sympetrum striolatum; Anax imperator; Pyrrhosoma nymphula; Aeshna cyanea*)
Twentyone species of dragonfly and damselfly are included in the NM BAP Dragonflies Species Action Plan. These include vagrant species and some which are thought to be undergoing range expansions in the UK. Eighteen of these species are known to breed in our local area, with significant breeding sites in St Helens and Sefton.

Local causes of decline in this include the destruction or damage of essential wetland habitat through development, waste-tipping and agricultural run-off. Removal of nearby feeding habitats such as woodlands, hedgerows and tall vegetation is also detrimental.

NM BAP species: Brown Hare (*Lepus europaeus*)
Whilst still well distributed in North Merseyside it is thought that the local population of Brown Hare declined in-line with National trends which have shown severe declines in the western pastoral parts of the country to around 20% of the numbers present in Victorian times.

Reasons for local declines are thought to include loss and fragmentation of suitable habitat to development, illegal hunting and changes in farming practices and land use that cause increased disturbance (changes in cropping/sowing times, livestock trampling and recreation).

NM BAP species: Bats (*Pipistrellus pipistrellus; Nyctalus noctula*)
The NM BAP Bats Species Action Plan covers all species found in North Merseyside since all are considered to be locally threatened.

Bat Species are found throughout North Merseyside, with Pipistrelles (Common/Soprano) most often encountered and Brown Long-eared and Noctules less common. Daubenton's are also frequently encountered in suitable wetland habitat. Whiskered, Brandt's and Natterers are considered rare locally.

Bat species will roost in many locations that are warm, dark, sheltered and little undisturbed. Such places can include derelict buildings, barns, roof spaces and tree hollows.

Factors causing declines in these species include the loss of prey insects due to the increased use of pesticides and general park/garden 'tidiness', loss and fragmentation of habitat mosaics, loss of winter roosts in old trees and buildings and intentional exclusion from buildings by people.

NM BAP species: Red Squirrel (*Sciurus vulgaris*)
Over the last 100 years the UK range Red Squirrel has contracted massively. In most areas the species of Britain it has vanished and most populations are now restricted to areas of Scotland and North

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England. North Merseyside has a relatively stable population on the Sefton Coast with small numbers across Knowsley and St Helens.

Threats include the Grey Squirrel which carries the squirrel pox virus that appears to have been the main cause of the red squirrel decline in Britain. In addition the fragmentation of woodland has reduced suitable habitat and increased road mortality as individuals try to move between pockets of habitats. Locally, over-maturation of trees will soon greatly reduce the Red Squirrels food source.

NERC Act Section 41 Species

Known also as 'Species of Principle Importance in England' and the 'England Biodiversity List' this list was developed to meet the requirements of Section 40 of the Natural Environment and Rural Communities Act (2006). The list is derived, almost wholly, from the 2007 revised list of UK BAP priority species. (So called 'research only' moth species have been excluded from the report.) The section 41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- Regional Planning Bodies and Local Planning Authorities must use it to identify the species that should be afforded priority when applying the requirements of National Planning Policy Framework (NPPF) to maintain, restore and enhance species and habitats.
- Local Planning Authorities must use it to identify the species that require specific consideration in dealing with planning and development control, recognising that under NPPF the aim of planning decisions should be to minimise impacts on biodiversity and geodiversity.
- All Public Bodies must use it to identify species that should be given priority when implementing the NERC Section 40 duty.

The following tables detail the NERC Section 41 species that were recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
amphibian	Common Toad	*Bufo bufo*	3	1983-1999	Sect.41
bird	Bullfinch	*Pyrrhula pyrrhula*	2	1998-1999	Sect.41.suppl
	Dunnock	*Prunella modularis*	4	1997-1999	Sect.41.suppl
	House Sparrow	*Passer domesticus*	31	1997-2001	Sect.41
	Lapwing	*Vanellus vanellus*	1	1997-1999	Sect.41
	Linnet	*Linaria cannabina*	2	1997-1999	Sect.41.suppl
	Song Thrush	*Turdus philomelos*	4	1997-1999	Sect.41.suppl
	Starling	*Sturnus vulgaris*	4	1997-1999	Sect.41.suppl
	Willow Tit	*Poecile montana*	2	1997-1999	Sect.41.suppl
fern	Pillwort	*Pilularia globulifera*	4	1820-1839	Sect.41
flowering plant	Cornflower	*Centaurea cyanus*	1	1986	Sect.41
insect - beetle (Coleoptera)	Sallow Guest Weevil	*Melanapion minimum*	1	1978	Sect.41
insect - butterfly	Wall	*Lasiommata megera*	2	1992	Sect.41
terrestrial mammal	Brown Hare	*Lepus europaeus*	1	1998	Sect.41
	Eurasian Red Squirrel	*Sciurus vulgaris*	6	1933-2008	Sect.41
	Noctule Bat	*Nyctalus noctula*	2	1986-1988	Sect.41
	West European Hedgehog	*Erinaceus europaeus*	32	1973-2012	Sect.41

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Desig. Code	Desig. Name	Designation Description
Sect.41	Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (sec	Species “of principal importance for the purpose of conserving biodiversity” covered under section 41 (England) of the NERC Act (2006) and therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.
Sect.41.suppl	Supplementary list to deal with S41 bird sub-sp problems	Bird species corresponding to British sub-species listed in section 41 (England) of the NERC Act (2006).

IUCN Red-listed Species

The IUCN Red List of Threatened Species (sometimes called 'Red Data Book' species) indicates the conservation status of plants and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. The system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on plants and animals that are categorized as 'Extinct' or 'Extinct in the Wild'; on taxa that cannot be evaluated because of insufficient information ('Data Deficient'); and on plants and animals that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme ('Near Threatened').

The following tables detail the IUCN Red-listed species that were recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
fern	Pillwort	*Pilularia globulifera*	4	1820-1839	RLGB.Lr(NT)
flowering plant	Corn Marigold	*Glebionis segetum*	1	1986	RLGB.VU
	Field Woundwort	*Stachys arvensis*	1	1995	RLGB.Lr(NT)
	Wild Pansy	*Viola tricolor*	1	2013	RLGB.Lr(NT)
insect - butterfly	Swallowtail	*Papilio machaon*	1	2013	RLGB.Lr(NT)
	Wall	*Lasiommata megera*	2	1992	RLGB.Lr(NT)

Desig. Code	Desig. Name	Designation Description
RLGB.Lr(NT)	IUCN (2001) - Lower risk - near threatened	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGB.VU	IUCN (2001) - Vulnerable	A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.

Nationally Notable Species

These are plants and animals which do not fall within red-list categories but which are none-the-less uncommon in Great Britain.

The following tables detail the Nationally Notable species that were recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
fern	Pillwort	*Pilularia globulifera*	4	1820-1839	NS
flowering plant	Welsh Poppy	*Meconopsis cambrica*	1	2010	NS
insect - beetle (Coleoptera)	Acidota cruentata	*Acidota cruentata*	2	1986-1987	Nb
	Acrotona obfuscata	*Acrotona obfuscata*	7	1987-1988	N
	Elaphropus parvulus	*Elaphropus parvulus*	4	1988	Nb
	Euplectus aubeanus	*Euplectus duponti*	2	1985-1986	N
	Euplectus bonvouloiri subsp. rosae	*Euplectus bonvouloiri subsp. rosae*	4	1985-1987	N
	Eutheia schaumi	*Eutheia schaumii*	1	1986	N
	Falagria sulcatula	*Falagria sulcatula*	1	1987	N

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	Gyrophaena congrua	*Gyrophaena congrua*	1	1987	N
	Gyrophaena strictula	*Gyrophaena strictula*	1	1988	N
	Megatoma undata	*Megatoma undata*	1	1984	Nb
	Microdota benickiella	*Microdota benickiella*	20	1987-1988	N
	Oligota apicata	*Oligota apicata*	1	1987	N
	Oxypoda exoleta	*Oxypoda exoleta*	6	1986-1987	N
	Oxypoda flavicornis	*Oxypoda flavicornis*	25	1987-1988	N
	Philhygra deformis	*Philhygra deformis*	5	1986-1987	N
	Pseudomedon obscurellus	*Pseudomedon obscurellus*	6	1985-1987	N
	Quedius (Microsaurus) truncicola	*Quedius (Microsaurus) truncicola*	1	1990	Nb
	Sallow Guest Weevil	*Melanapion minimum*	1	1978	Nb
	Scaphidema metallicum	*Scaphidema metallicum*	1	1987	Nb
	Sunius melanocephalus	*Sunius melanocephalus*	2	1988	N
insect - moth	Pied Grey	*Eudonia delunella*	2	2012	Nb

Desig. Code	Desig. Name	Designation Description
NS	Nationally scarce	Occurring in 16-100 hectads in Great Britain.
Nb	Nationally Notable B	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
N	Nationally Notable	Species which are estimated to occur within the range of 16 to 100 10km squares. (subdivision into Notable A and Notable B is not always possible because there may be insufficient information available). Superseded by Nationally Scarce, and therefore no longer in use.

WCA schedule 9 species (including non-native invasive plants)

Schedule 9 of the Wildlife & Countryside Act (amended 2010) lists species of plants and animals for which it is a specific offence to plant or otherwise cause to grow in the wild (plants) or release or allow to escape into the wild (animals). Many of these are invasive non-native plants and animals, but there are also a number of native animals on the list (e.g. Barn Owl) which cannot be released into the wild in England without a license from Natural England.

The following tables detail the WCA Schedule 9 species recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
bird	Barn Owl	*Tyto alba*	1	1998	MBB-WCA-S9
	Canada Goose	*Branta canadensis*	1	1998	MBB-WCA-S9
flowering plant	Canadian Waterweed	*Elodea canadensis*	1	1984	MBB-WCA-S9
	Indian Balsam	*Impatiens glandulifera*	4	1995-2011	MBB-WCA-S9
	Japanese Knotweed	*Fallopia japonica*	6	1975-2013	MBB-WCA-S9
	New Zealand Pigmyweed	*Crassula helmsii*	2	1991-2014	MBB-WCA-S9
	Rhododendron	*Rhododendron ponticum*	15	1984-2014	MBB-WCA-S9
terrestrial mammal	Eastern Grey Squirrel	*Sciurus carolinensis*	70	1966-2013	MBB-WCA-S9

Desig. Code	Desig. Name	Designation Description
MBB-WCA-S9	Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England and Wales) Order 2010	Species on Schedule 9 (part 2) as revised 2010. Under section 14 of the Act it is illegal to release into the wild any animal or allow to grow in the wild any plant which is not ordinarily resident in GB or which is a known threat and is listed on Schedule 9 of the Act.

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BAP priority habitats

In 2007 the Local Biodiversity Manager (responsible for the North Merseyside Biodiversity Action Plan) undertook a review of the extent of UK BAP priority habitats in North Merseyside and produced GIS layers to show their extents. In most cases these inventories were derived from two main sources: the latest Phase 1 habitat surveys which were conducted for the four North Merseyside local authorities between 1996 and 2007; and an NVC survey of the Sefton Coast carried out between 2003 and 2004. A separate NVC survey of the Ribble estuary carried out in 2002 (which also included saltmarsh at the Alt) was also useful as were one or two other sources. Because of the diverse nature of habitat classifications, it was not always possible to produce inventories with a one-to-one correspondence with UK BAP priority habitats. The table below shows the BAP habitat inventories for North Merseyside and their correspondence with UK BAP priority habitats.

North Merseyside habitat inventory	Correspondence with UK BAP priority habitats
Lowland Acid Grassland	Lowland Dry Acid Grassland
Lowland Heathland	Lowland Heathland
Lowland Raised Bog	Lowland Raised Bog
Neutral Grassland	Incorporates the UK BAP habitat Lowland Meadows but also, in North Merseyside, includes a lot of amenity grassland, road verges etc.
Calcareous Grassland	Calcareous Grassland
Ponds	Ponds
Lakes	Eutrophic lakes
Reedbeds	Reedbeds
Hedgerows	Hedgerows
Saltmarsh	Coast Saltmarsh
Sand Dune	Coastal Sand Dune
All Woodland	It was not possible, from the available data, to produce separate inventories for different woodland types in North Merseyside, so this inventory incorporates elements of several UK BAP priority habitats such as Lowland Mixed Deciduous Woodland, Wet Woodland and Wood Pasture & Parkland.

Note that the 'Ponds' BAP inventory was derived locally using water bodies less than two hectares in extent from Ordnance Survey data. The 'Lakes' BAP inventory is a nationally supplied inventory, but the lakes are only represented in this as points. Therefore any water body over two hectares in extent will only be represented on our habitat maps by a point and will not show the extent of the lake. However, ponds will be indicated by polygons showing their extent. Occasionally a large pond – though still less than two hectares in extent – will be represented in both the 'Lake' and 'Pond' inventories.

Habitat	Amount	Units
All Woodland	36.59	hectares
Neutral Grassland	0.05	hectares
Ponds	0.1	hectares
Ponds	10	count

The table above indicates the extent of each of the BAP habitat inventories (see previous table) occuring within your search area (see appendix 2 for maps).

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Detailed habitat mapping

Merseyside BioBank collates and maintains detailed habitat mapping – normally Phase 1 or NVC – for the North Merseyside area. This includes both historic data and the most up-to-date habtitat survey data available. Here we report on the detailed habitat mapping we hold for your search area.

Ref: Liverpool-2006-07		
Source: Liverpool Space for Nature project - phase 1 habitat survey 2006-2007 Survey date: 2006 - 2007 Notes: This is the 'default' baseline mapping used by the Council. It is the most recent complete coverage for the borough.		
Woodland and scrub		
A1.1.1	Broadleaved woodland - semi-natural	0.24 ha
A1.1.2	Broadleaved woodland - plantation	6.72 ha
A1.3.2	Mixed woodland - plantation	6.58 ha
A2.1	Scrub - dense/continuous	1.14 ha
Grassland and marsh		
B6	Poor semi-improved grassland	1.07 ha
Tall herb and fern		
C3.1	Other tall herb and fern - ruderal	0.11 ha
Open water		
G1	Standing water	0.01 ha
Miscellaneous		
J1.1	Cultivated/disturbed land - arable	0.19 ha
J1.2	Cultivated/disturbed land - amenity grassland	13.91 ha

Habitat maps themselves are produced at the end of the report. You can cross-reference the figures in the tables below to the maps by means of the reference which appears on each map. A map with the reference 'Composite' is a special map made on-the-fly at the time of this report production by merging data from all available sources and using the most up-to-date mapping available at any given point in your search area.

Designated Areas

There are a number of types of 'designated areas' in North Merseyside. These types are shown in the table below together with the total number of North Merseyside sites for each.

Type of area	**No. of sites**
Site of Special Scientific Interest	6
Special Protection Area (Natura 2000)	3
Marine Special Protection Area	1
Special Area of Conservation (Natura 2000)	1
RAMSAR (wetland of international importance)	3
National Nature Reserve	3
Local Nature Reserve	57
Knowsley Local Wildlife Site	23
Sefton Local Wildlife Site	55
St Helens Local Wildlife Site	121
Liverpool Local Wildlife Site (current)	28
Liverpool Local Wildlife Site (proposed)	30

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Merseyside Ancient Woodland Inventory	11
RSPB/LWT Windfarm Alert Map	1
Red Squirrel Protection Area	1

The following table indicates the results of the intersection between the search area and designated areas detailed above (see appendix 2 for maps).

Name	**Type**
Hillfoot Road & Simpsons Pavillion	Liverpool Local Wildlife Site (current)
Eric Hardy LNR and Clark Gardens	Liverpool Local Wildlife Site (proposed)
Land within Allerton Green Wedge	Liverpool Local Wildlife Site (potential)
Woolton Manor, Woolton Woods & Camp Hill	Liverpool Local Wildlife Site (potential)
Woolton Quarry, Quarry Street, Woolton	Liverpool Local Geological Site

Citations[1] for Local Wildlife Sites are supplied separately.

[1] In Knowsley, some Local Wildlife Site citations do not include lists of species and habitats for which they are designated and where this is the case a separate list is supplied for the site. No Local Wildlife citations are available for Liverpool Local Wildlife Sites (current or potential). No citations for LNRs are available. Citations for national and internationally designated sites (SSSI, SPA etc) are publicly available.

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Interpretation and caveats

Merseyside BioBank records included

All relevant non-confidiential records managed by Merseyside BioBank which intersect the search area are included in this report, except where excluded by one or more of the conditions described in the rest of this section.

NBN Gateway records included

All relevant records available to Merseyside BioBank from the NBN Gateway are included in this report, except where excluded by one or more of the conditions described in the rest of this section. NBN Gateway records are accessed live *via* web-services at the time of report generation.

Merseyside BioBank often has access to NBN records at higher resolution than the standard 'public' access. These records have been downloaded and used with the permission of the data providers, but are subject to normal NBN Gateway terms and conditions. You must not use them beyond the specific purposes for which this report was provided to you and you must adhere, at all times, to the NBN Gateway terms and conditions.

Record location and dates

If a record can only be located to a relatively low precision (e.g. 1 km or 2 km square), then it is possible that the unrecorded precise location of the animal or plant might have been outside of the search area. Sometimes the location name column can be useful in deciding whether or not this was likely to have been the case. In records from our own database, we have replaced all digits with the '#' character in the location field to people's privacy where addresses have been used as location names.

Records which are only available to us at less than 2 km square (tetrad) precision are excluded from the report. We report dates at the highest precision available to us. Records for which no date is available are excluded from the report.

Absence of records and 'negative records'

The absence of biological records for an area, or the presence of 'negative records', is not proof that taxa are not present.

Duplicate records

Although we do our very best to avoid reporting the same record more than once ('duplicate records') this is sometimes unavoidable for records that have entered the biological records network *via* more than one route. In particular, there may be some record duplication between records from Merseyside BioBank's database and records from the NBN Gateway datasets (though, of course, we do not report on NBN Gateway records which originate from Merseyside BioBank).

Validity of records

Whilst Merseyside BioBank continually strives to verify the records that we manage, we accept no responsibility for any errors subsequently discovered. Merseyside BioBank accepts no responsibility for errors in data derived from the NBN Gateway.

Bird records

Only bird records with a recorded status of proven, probable and possible breeding have been included in this data search. Bird records with other statuses are not included. The most recent bird records for North Merseyside included, e.g. those generated for the ongoing breeding and wintering atlas projects, since these data have yet to undergo verification by the County Bird Recorder. It is possible for you to

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contact the County Bird Recorder independently for his interpretation of the most recent data with respect to your search area. The contact details are:

Steve White
stevewhite102@btinternet.com

Please note that if this is a commercial data request you will be invoiced by **Sefton Borough Council**, which is the hosting authority for Merseyside BioBank LRC.

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Appendix 1: Terms and conditions of use

Merseyside BioBank receives data from a variety of sources, from large organisations to amateur naturalists. With Merseyside BioBank operating as custodians, these individuals and groups, who provide their records free of charge, retain copyright on their data.

All data passed to a third party (users) by Merseyside BioBank are subject to these access terms and conditions. Non-adherence to these terms and conditions will be viewed as a breach of contract, which may result in legal redress being sought.

1. Users agree that data released by Merseyside BioBank, in any format and on any media, will only be used for the purpose for which it was originally requested and for any time period originally agreed upon (See note 3 below).

2. Users agree that data released by Merseyside BioBank will not be added to any permanent database system (electronic or paper based) unless by written agreement with Merseyside BioBank.

3. Users understand that following the end of the agreed time period, or 12 months from the enquiry date, the received data must be deleted from any electronic system (See note 2 above). Use of the data beyond this period must be preceded by a further request to Merseyside BioBank.

4. Users agree that data retrieved from Merseyside BioBank will not be passed on to or communicated with third parties except as aggregated data within reports, or as anonymised data in the form of maps etc., which constitute a part of the agreed reason for the original enquiry.

5. Merseyside BioBank disclaims any responsibility for the accuracy of the information within its reports and accepts no liability for any result of using these data.

6. Any biological record is specific to the date of the recording and does not necessarily imply the continuance of the species at that site.

7. The lack of species and/or habitat information for a geographically defined area does not necessarily imply a low biodiversity value for that area. It may simply be unrecorded.

8. While the information from Merseyside BioBank in itself will remain free, Merseyside BioBank reserves the right to charge a reasonable fee to cover administration and a proportion of overheads as detailed in our charging policy.

9. A copy of any report, or other product, produced using the data from Merseyside BioBank would be gratefully received if provided without cost.

10. Merseyside BioBank must be acknowledged within any report, or other product produced, using data provided by Merseyside BioBank.

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Appendix 2: Maps

The following page(s) include maps to illustrate some of the results of your data request. They should be viewed in the context of the results supplied in the main body of the report.

The Ordnance Survey mapping included in the maps provided by Merseyside BioBank under Sefton Council's licence from Ordnance Survey. These maps are provided to assist decision-makers in the effective and sustainable management of land, species and habitats. Ordnance Survey should be contacted directly if any of these maps are to be used in another document.

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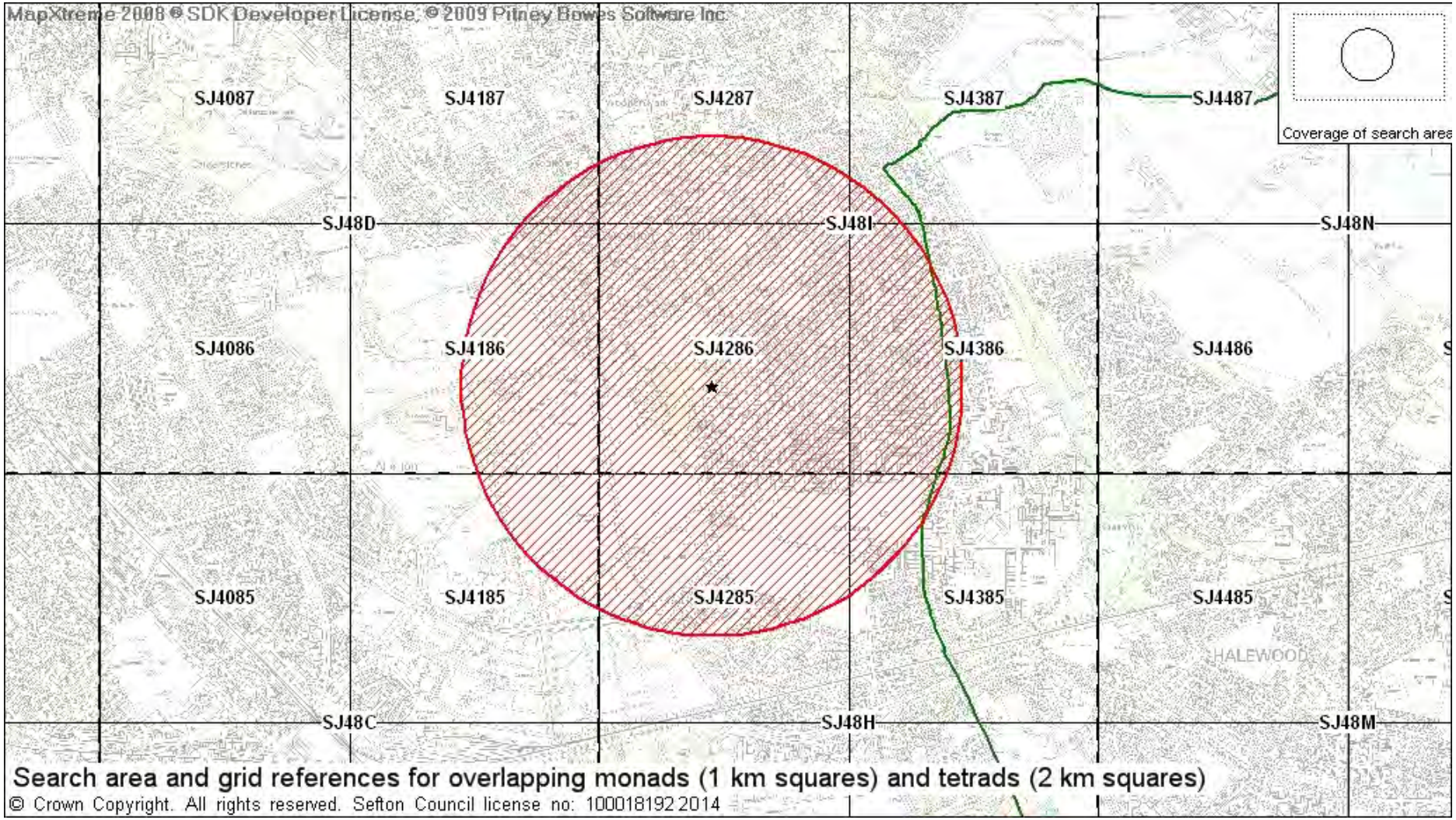

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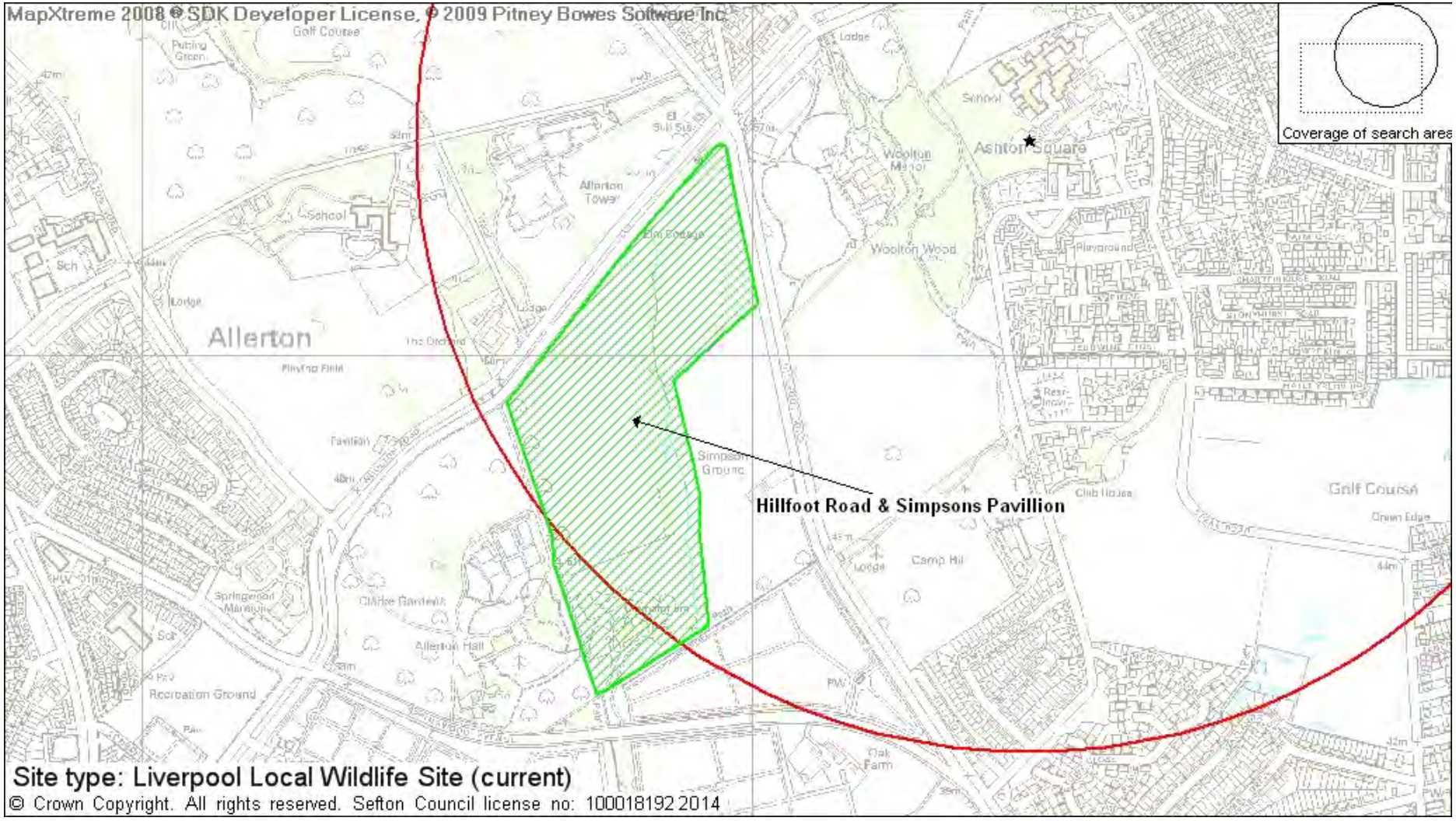

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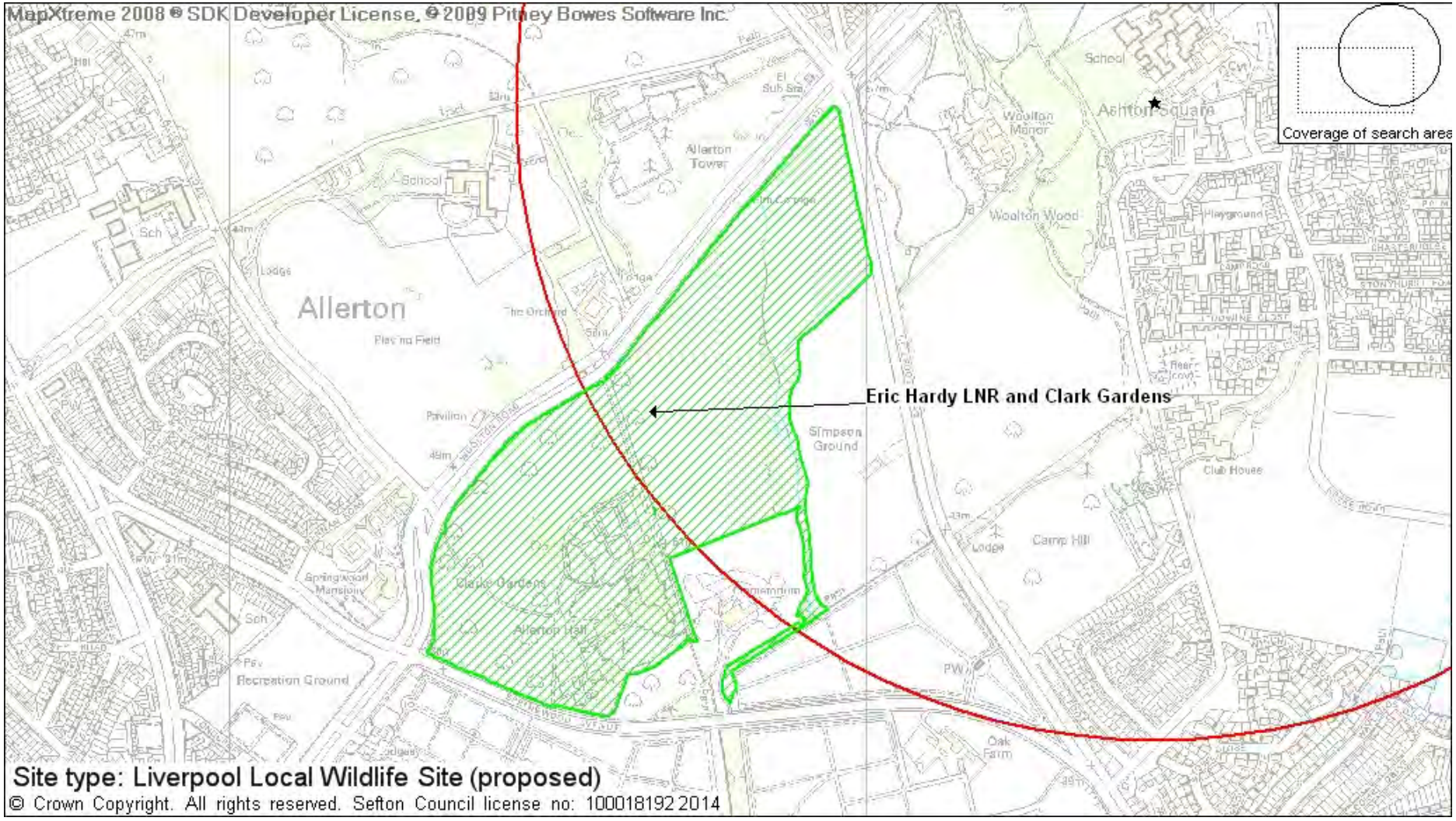

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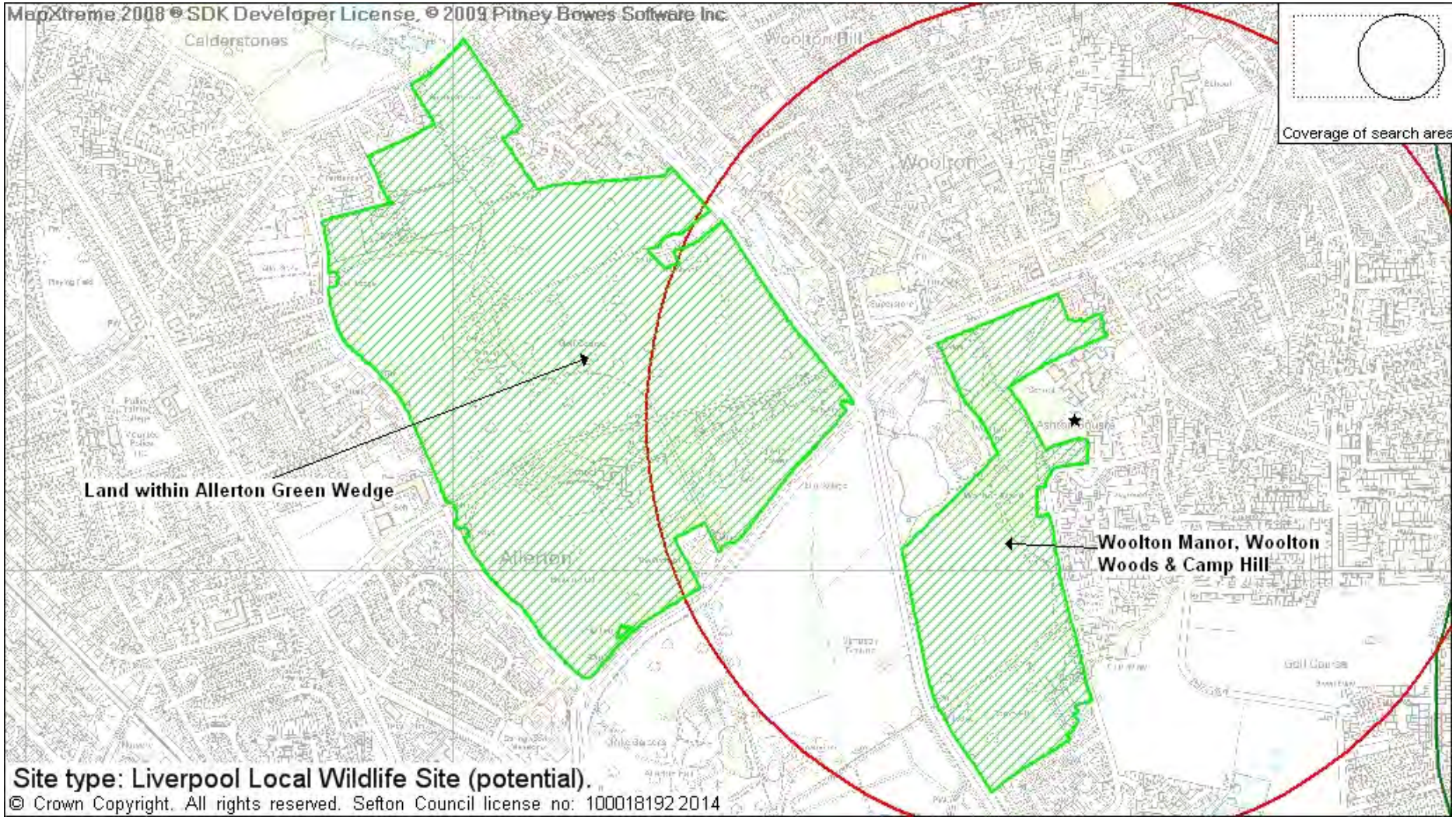

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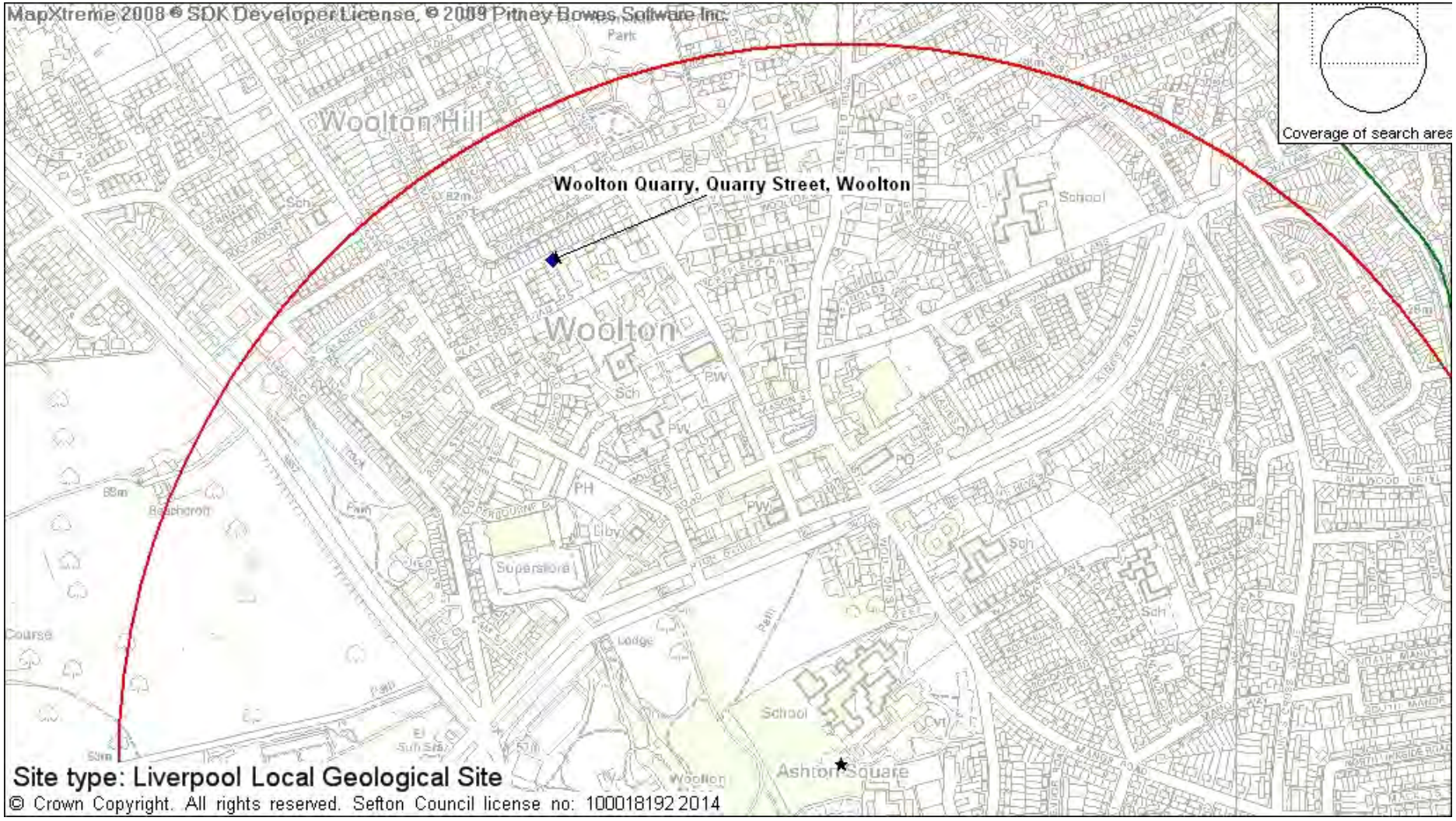

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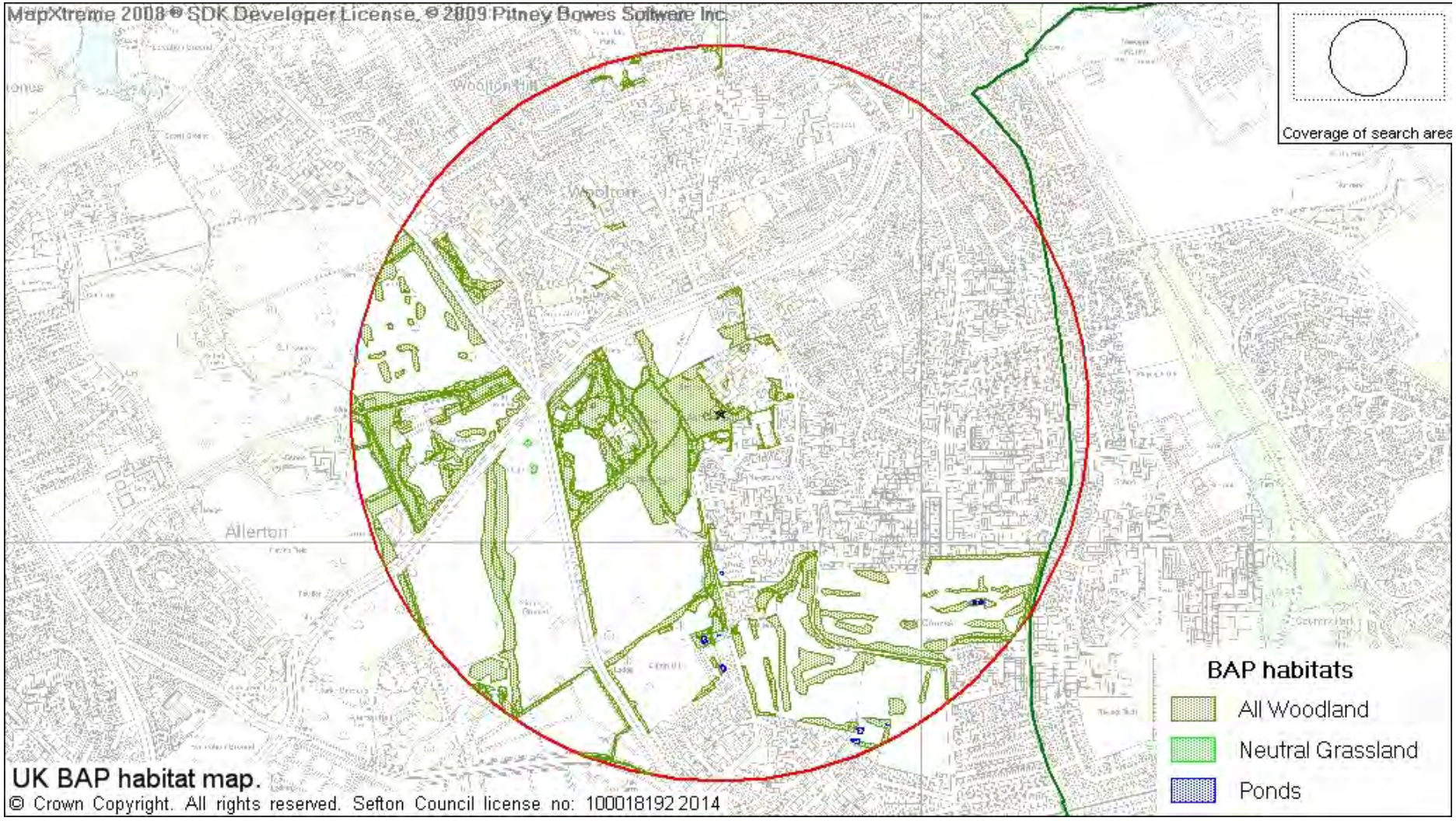

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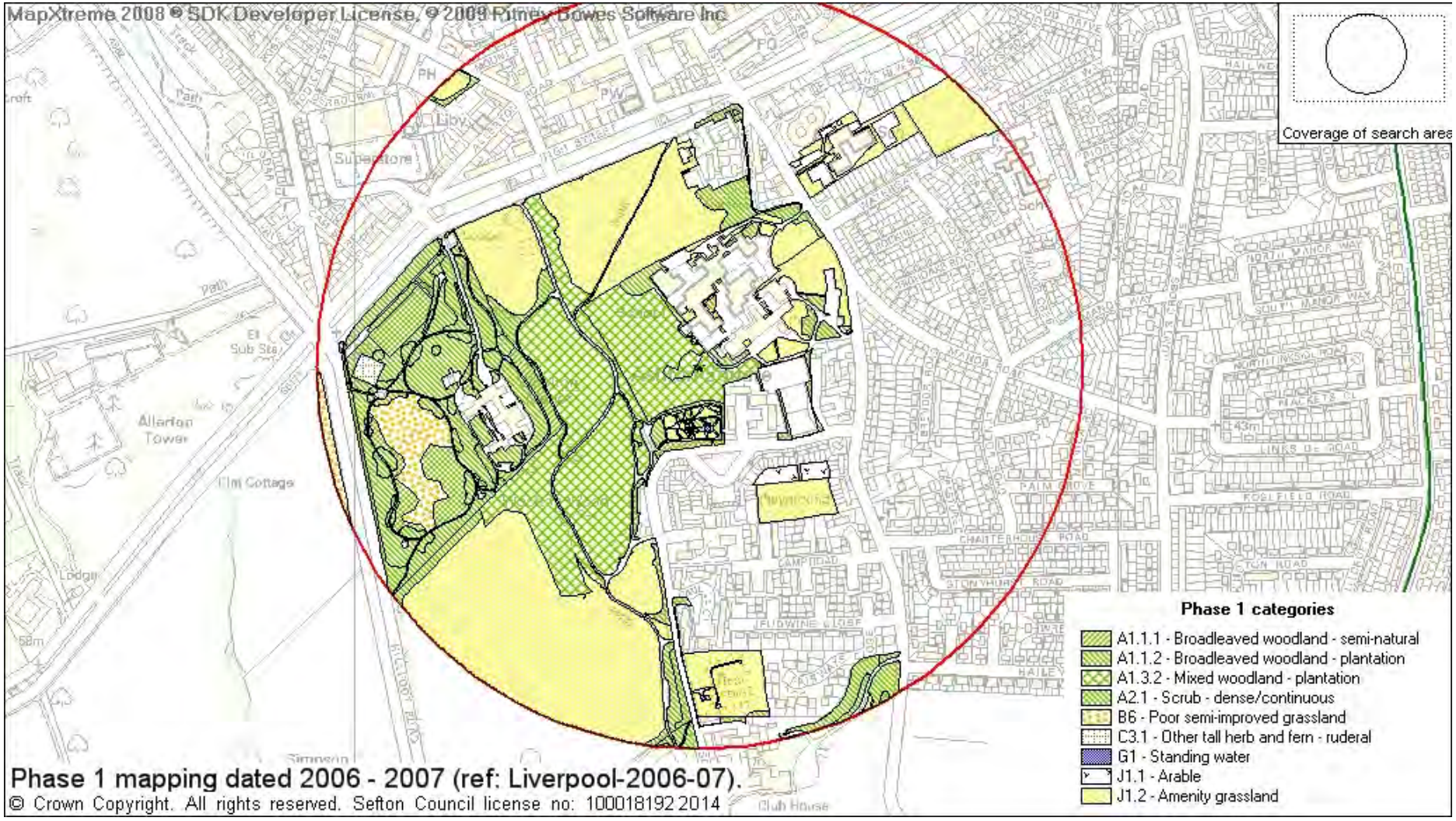


APPENDIX 2.
BAT AND BIRD BOX EXAMPLES

BAT BOXES TO INSTALL INTO OR ON TO BUILDINGS & BUILT STRUCTURES

These bat boxes are designed to be built into buildings, or underneath bridges, arches or tunnels, where conditions are relatively humid. There are particularly useful for incorporating into new buildings or bridges to attract bats or to provide new roost sites where existing buildings with bats are being renovated.

Schwegler N27

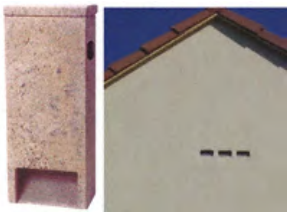
This box should be cemented into a wall. It contains a single internal wooden panel which simulates a crevice. The removable front panel allows for easy cleaning. *No painting is required, but if it is necessary, a natural breathable paint should be used*
Woodcrete (75% wood sawdust, concrete and clay mixture)
Width 18cm, Height 29cm, Depth 23.5cm

Schwegler 1FR Bat Tube

This long box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom, allowing for self cleaning. No painting required, but if painting is necessary a natural breathable paint should be used

Woodcrete (75% wood sawdust, concrete and clay mixture)
Width 20cm, Height 47.5cm, Depth 12.5cm
Entrance width 15cm, Entrance depth 2cm

Schwegler 2FR Bat Tube



The same design as the 1FR but with holes in the sides. This allows multiple tubes to be placed next to each other to form a much larger bat roost. These boxes are maintenance-free as the entrance slit is at the bottom. No painting required, but if painting is necessary a natural breathable paint should be used.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 20cm, Height: 47cm, Depth: 12.5cm, Weight: 13kg
Entrance Width: 15cm, Entrance Depth: 2cm

Ibstock - Enclosed Bat Box B

- Designed specifically for the pipistrelle bat
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work

215mm x 215mm or 215mm x 290mm
F2 S2 Fully frost resistant

Ibstock - Bat Box with Engraved Motif C

- Attractive motive
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work

215mm x 215mm or 215mm x 290mm
F2 S2 Fully frost resistant

Schwegler Bat Access Panel

This is a maintenance free access panel, designed to allow bats entry through exterior walls. The rear of the panel is left open so bats can pass through into existing bat roosts. The bat panel is particularly useful when renovation or conversion work is taking place in buildings containing bat roosts, where continued access to established bat roosts is desirable. No painting is required, but if painting is necessary a natural breathable paint should be used.

Material: Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 30cm, Height: 30cm, Depth: 8cm, Weight: 7.8kg

Back Plate for 1FE Bat Panel

If access to an existing nesting site is not required, the 1FE can be fitted with an optional Back Plate, which includes an attached wooden panel to create a cavity wall inside the box .The roughened surfaces of the Plate, and the inside of the 1FE itself, are very attractive to bats. Installation of the complete box is easy. For example, it can be screwed to a wall or fixed within insulation.

Material: Woodcrete (75% wood sawdust, concrete and clay mixture)
Weight: 2.2kg

Schwegler 1FQ Bat Box

An attractive box designed specifically to be fitted on the external wall of a house, barn or other building. Equally appealing to bats as a roost or a nursery, it features a special porous coating to help maintain the ideal temperature inside as well as a roughened front panel to enable the bats to land securely. Access into the box is via a step-like recess.
Inside the box, rough pieces of wood are incorporated into the back of the box which are good insulators and are used by the bats as perches. The internal layout offers three different areas with varying degrees of brightness and temperature.
This durable box is easy to attach to most walls, requires no maintenance or cleaning and will last for decades. Please note that this box is designed to be fitted to a wall. Due to the weight it is unsuitable for fences or sheds.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Height 565mm; Width 350mm, Depth 85mm, Weight 13kg

BAT BOXES FOR SITING ON TREES

Schwegler 2F Bat Box

A popular general purpose box attractive to the smaller British bats. A simple design with a narrow entrance slit on the front.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter 16cm
Height 33cm

Schwegler 2F-DFP Bat Box

A general purpose box attractive to the smaller British bats, with a roughened wooden panel inside the box which simulates a crevice.
This box is favoured by Daubenton's bat and Nathusius' pipistrelle.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter 16cm
Height 33cm

Schwegler 2FN Bat Box

A larger box with both a wide access slit at the base and an access hole on the underside. Suitable for the larger British bat species. Particularly successful in attracting noctule and Bechstein's bats.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter 16cm
Height 36cm

Schwegler 1FD Bat Box

A large general purpose bat box, with two roughened wood panels inside the box which simulate crevices.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter 16cm, Height 36cm

Schwegler 1FW Hibernation Box

This large box is designed to provide a protected environment, particularly through the cold winter months when bats hibernate. It has three internal wooden panels imitating crevices. *Supplied with special fixing brackets. It is important to fit this heavy box very securely if mounting above the ground, and to site it well away from public areas.*

Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter 38cm, Height 50cm, Weight 30kg

Schwegler 1FS Bat Box

Schwegler woodcrete boxes have the highest rates of occupation of all box types. The 75% wood sawdust, concrete and clay mixture allows natural respiration, stable temperature, and durability. They are extremely long lasting and rot- and predator-proof. The 1FS is a larger capacity general purpose bat box with more insulation than most boxes for a more stable temperature in the winter.
Wooden block hanger and 'tree-friendly' aluminium nails included.
Woodcrete (75% wood sawdust, concrete and clay mixture)
Diameter: 28cm Height: 44cm Weight: 10kg

BIRD BOX SPECIFICATIONS

BOXES TO FIT ON/IN BUILDINGS

Sparrow Terrace, Stone Colour
House sparrows are gregarious and prefer to nest close to each other, so this woodcrete box provides room for three families under one roof. Made from long-lasting, breathable woodcrete. Stone colour.
No maintenance required.
Dimensions 245 x 430 x 200 mm.
Weight 13kg. Designed for fixing to walls (not suitable for fences or sheds due to the weight of the box).
A02085 Sparrow Terrace, Stone Colour (also available in brown)

Schwegler 9A House Martin Double Nest
These woodcrete nests are durable and ready for immediate use when birds return each summer. Easily fixed under the eaves on the outside walls of buildings, at least 2 metres from the ground. The backing board may be painted to match the building. Model 9A is a double unit with two nests mounted side by side on a backing board, as shown. Model 9B is similar to the 9A above but with one single nest
A02018 Schwegler 9A House Martin Double Nest
A02019 Schwegler 9B Single House Martin Nest

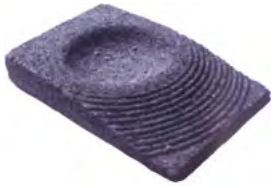
Schwegler No 10 Swallow Box
This box should be located inside buildings such as barns, stables, sheds or outhouses, ensuring there is always access for the birds through a window or opening.
A02020 Schwegler No 10 Swallow Box

Droppings Board
To avoid problems with bird droppings from house martin or swallow nests, this board can be installed where necessary, for example over a window or door.
A02021 Droppings Board

Schwegler No 16 IMF Swift Box, Double Chamber
The design of this box mimics bell tower louvres. It has two removable panels for easy inspection of the two nest chambers.
Designed for fixing on or within walls (not suitable for fences or sheds).
Dimensions 460mm h x 430mm w x 225mm d
A02088 Schwegler No 16 IMF Swift Box, Double Chamber

Schwegler No 16 Swift Box, Single Chamber
Similar to the box above but with a single chamber and single front panel.
Dimensions 240mm h x 430mm w x 225mm d.
A02087 Schwegler No 16 Swift Box, Single Chamber

Nest Mould for No 16 Swift Boxes
This nest mould fits inside the nest chamber of the No16 or No16 IMF boxes above, to encourage nesting. Research shows that the birds are more likely to nest if a nest mould is used.
A02089 Nest Mould for No 16 Swift Boxes



Schwegler No 17 Swift Box
This box is constructed from plant-fibre based material. It should be sited 6-7m above the ground, near the roof of a building or on a steep rock face.
Interior dimensions 14 x 14 cm. Outer length 34cm
A02041 Schwegler No 17 Swift Box

Schwegler No 18 Swift Box
This nest box is suitable for fixing high under the eaves or under the guttering of a building.
Woodcrete on board backing.
Interior dimensions 14 x 34 x 15 cm.
Exterior dimensions 19 x 50 x 22 cm
A02041A Schwegler No 18 Swift Box

Schwegler N24 Nest Brick
Designed for installation into the fabric of a building, this box is suitable for tits and redstart etc. Woodcrete.
Weight 7.3kg
Entrance hole 32mm Dimensions 180w x 180d x 240h mm
A02043 Schwegler N24 Nest Brick

Schweger N25 Nest Brick
Designed for installation into the fabric of a building, this box is suitable for swifts.
Woodcrete
Weight 8.8kg
Entrance hole 55x33mm. Dimensions 260w x 220d x 180h mm
A02044 Schwegler N25 Nest Brick

Schwegler N26 Nest Brick
Designed for installation into the fabric of a building, this box is suitable for pied wagtail, spotted flycatcher and black redstart etc. Woodcrete.
Weight 5.4kg
Entrance hole 110mm Dimensions 180w x 180d x 200h mm
A02045 Schwegler N26 Nest Brick

BOXES TO FIT FENCES, WALLS AND TREES

Schwegler 1B Bird Box, natural brown
The 1B appeals to a wide range of species, and is the official nest box of National Nest Box Week. The box can be nailed to the trunk of a tree, or hung from a branch. Schwegler boxes can be expected to last 25 years or more without maintenance.
Woodcrete, 23cm high x 16cm diameter.
With standard 32mm diameter entrance hole

Schwegler 2H Open Fronted Nest Box
This box is attractive to this box is attractive to robins, pied wagtails, spotted flycatcher, wrens and black redstarts. Best sited on the walls of buildings with the entrance on one side. Schwegler boxes have the highest occupation rates of all box types. They are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance.
A02015 Schwegler 2H Open Fronted Nest Box

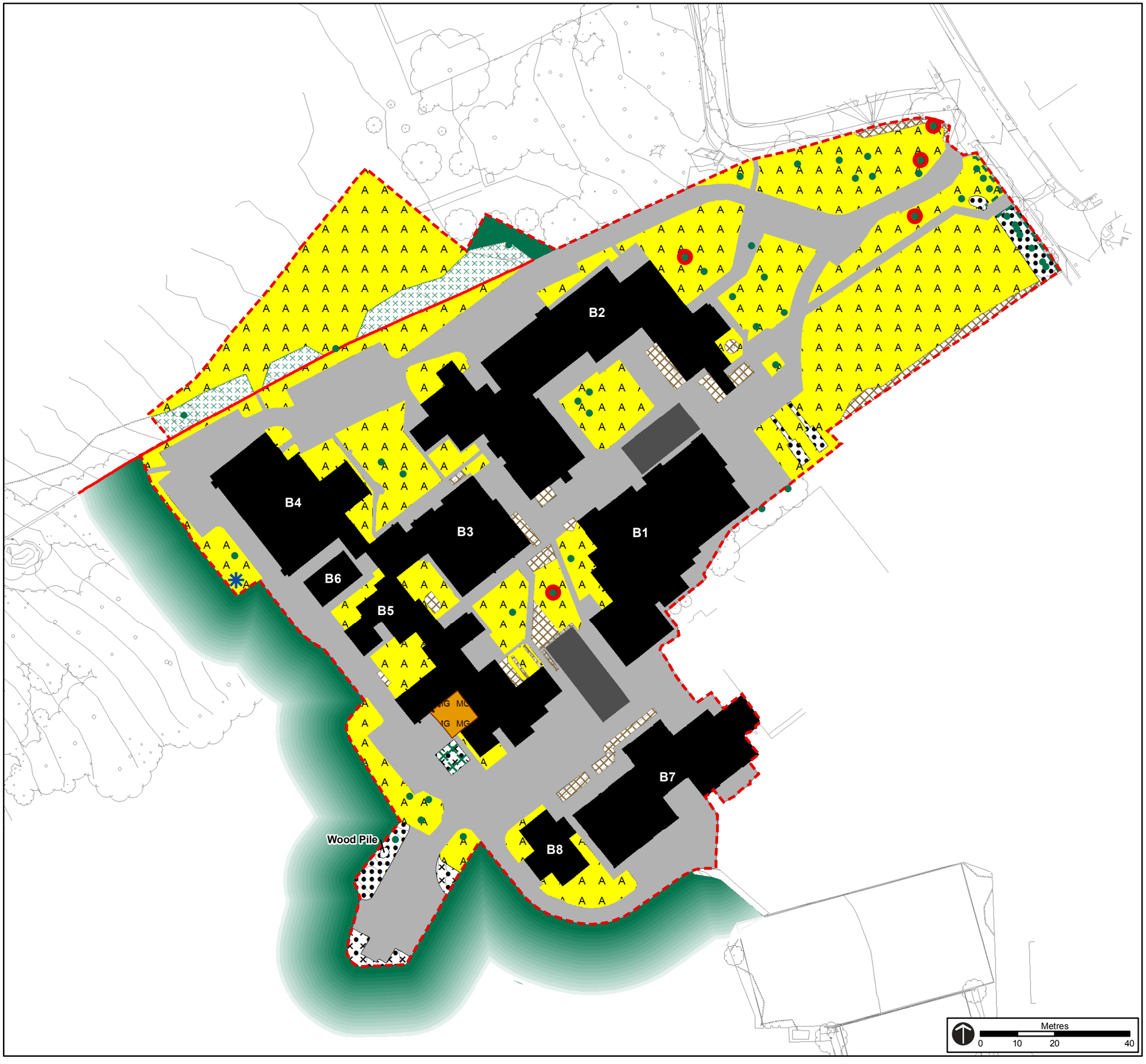
Schwegler Roundhouse Wren Box 1ZA - Autumn Red
Well insulated and mimics natural nest sites
This nest box provides the enclosed, round space preferred by wrens for nesting. They will line the nest with moss, feathers and fur. The 1ZA is made from long-lasting, breathable Schwegler Woodcrete and provides excellent protection from nest predators. It not only houses wrens when bringing up their young but also provides a sheltered place where they can roost in the winter. Strong hanging cable included to site the nest amongst shrubbery.
Code: 002096D

Gable Nest Box
A substantial wooden bird box with a gable roof and 28mm entrance hole. Made of 15mm thick softwood, external dimensions 14.5cm x 14.5cm x 26cm high (to top of gable). Suitable for the smaller garden birds.
A03008 Gable Nest Box

Wooden Bird Box
A simple wooden bird box with sloping roof, suitable for the smaller garden birds. Made from substantial 2cm thick softwood. 14cm w x 18cm d x 26cm h (backplate 33.5cm h). The standard model has a 32mm diameter entrance hole attractive to a wide range of smaller garden birds.
A03004 Wooden Bird Box

Roosting Pockets.
These attractive roosting/nest pockets can be used by wild birds in autumn, winter and spring. The birds can save energy during the colder months by roosting in a sheltered place. These pockets also provide a warm nesting place in the spring for smaller birds such as wrens. Made from natural materials. The pockets have a wire at the back to fix onto a branch, or they can be stapled or nailed to a fence or trellis with plant cover. Pack of 3 assorted roost pockets (styles may vary).
A02090 Roosting Pockets

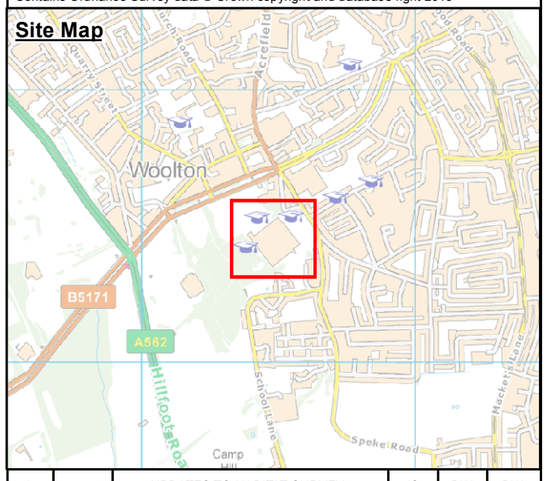
DRAWINGS



Key

- Survey Boundary
- Scattered scrub
- Scattered broad-leaved trees
- Broad-leaved tree with bat potential
- Emerging bluebell
- Species-poor defunct hedge
- Wall
- Semi-natural broad-leaved woodland
- Scattered scrub
- Modified neutral grassland
- Amenity grassland
- Introduced shrub
- Buildings
- Covered Walkway
- Bare ground
- Bare ground/ephemeral mix
- Other habitat
- Hardstanding

Site Map



ISSUE	DATE	COMMENTS	DRAW	CHK'D	APP'D
A	02/03/2015	UPDATES TO HABITAT SURVEY	JS	DW	DW

TEP
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Project: **ST JULIES, WOOLSTON**

Title: **PHASE 1 HABITAT SURVEY**

Drawing No: **G5041.001A**

Scale:	Date:
1:1,000 @ A3	02/03/2015

Drawn:	Checked:	Approved:
JS	CB	CH

LEGEND

1. Vehicular entrance from Speke Road
2. Visitors Parking - 14 No. spaces
3. Disabled Parking for school and visitors - 5 No. spaces
4. Access road to staff parking and sports hall
5. Staff parking - 80 No. spaces
6. Disabled parking for sports hall - 2 No. spaces
7. Pupil entrance - stepped route within secure line and closed during school hours
8. Main pedestrian entrance from Woolton Street for pupils, staff, visitors and community use
9. Habitat creation along greenspace boundary
10. Graded entrance path
11. Pedestrian footpath to school entrance
12. Pupil and out of hours community entrance for pedestrians
13. Graded access route to sports hall for community use
14. Visitor entrance
15. Pupil entrance
16. Community sports hall entrance
17. Cycle parking - 20 No. covered, secure spaces
18. Bin store and service intake housings
19. Secure, gated access to field from changing rooms
20. Grassed area retained for informal sports use
21. Hard play area for netball and tennis use
22. Multi-use games area for netball and tennis with 3m ball rebound fence and floodlighting
23. Hard play area with relocated shade canopies
24. Hard social space for 6th form use
25. Hard social space for external dinning
26. Pupil entrance area
27. Horticulture area
28. Entrance Plaza
29. Boundary to school comprising recycled store gabion walls and fencing
30. 10% woodland compensation area (TBC)
31. Fencing, hedge, planting and tree planting to Woolton Hall boundary

Rev.	Description	Date	By	Chk'd
D	Planning Issue	25/02/15	JD	CLO
C	Stage 3 Issue	23/01/15	JD	CLO
B	Planning Issue	18/12/14	JD	CLO
A	Bin store, water and sub-station amended	09/12/14	JD	CLO

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project
ST JULIES LIVERPOOL SCHOOLS INVESTMENT PROGRAMME

drawing title
COLOURED LANDSCAPE MASTER-PLAN

scale @ A1 1:500
date 03/12/14
drn JD chk'd CO

1206/101 D

CAD FILE NAME: S:\AUTOCAD FILES\1206 St Julies Catholic High School\Working Drawings\00 LANDSCAPE GENERAL ARRANGEMENT.dwg

NORTH

KEY

EXISTING TREES TO BE RETAINED
Refer to Tree Survey for details

EXISTING TREES TO BE REMOVED
Refer to Tree Survey for details

EXTENT OF ROOT PROTECTIONAREA
the "Construction Exclusion Zone"

TREE PROTECTION FENCING
To be maintained throughout the Construction period

TREE PROTECTION SPECIFICATION:

1.0 ARBORICULTURAL CONSTRAINTS PLAN

This drawing is to be read in conjunction with the St Julie's Catholic High School Tree Survey Report, 11/2014 and drawing prepared by SEP.

2.0 ROOT PROTECTION AREAS

Root Protection Areas for each retained tree have been identified, outside of which development should be located. For single stem trees the Tree Protection Area is calculated on a multiplier (12) of the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D. The calculated RPA for each tree should be capped to 707 m2.

The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution.

3.0 TREE PROTECTION FENCE

All trees that are being retained on site should be protected by barriers and/or ground protection before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where, due to site constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed.

Location of fencing to be in accordance with BS 5837:2012 Table 2.0 "Calculating the RPA" and Figure 2 "Protective Fence" for construction. Any deviation from the RPA for the location of the fence line to be in accordance with Clause 9.3 Ground Protection. When above information not available protect to lines indicated on this drawing.

The protected area should be regarded as sacrosanct, and, once installed, barriers and ground protection should not be removed or altered without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority.

Tree protection fencing should consist of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equallevel of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.

The following specification is considered to be a minimum to ensure tree protection. Fencing is to be implemented in accordance with BS 5837:2012. The fence is to be fixed in such away as to prevent it being relocated. All-weather notices should be attached to the barrier with words such as: "CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Panel Size

Length :	3472mm
Height :	2000mm
Vertical Tube	38.1 mm diameter 1.2mm wall thickness
Horizontal Tube	25.4 mm diameter 1.2mm wall thickness

Wire Thickness

Vertical wires:	3mm
Horizontal wires:	4mm

Wire Spacing

Horizontal:	76mm
Vertical:	360mm

4.0 PRECAUTIONS IN RESPECT OF TEMPORARY WORKS

4.1 VEHICULAR ACCESS:

If temporary vehicular access is required through the restricted area, a re-inforced load bearing surface is to be laid over the existing soil surface to prevent soil compaction. Appropriate precautions to be taken to prevent damage to the tree trunk and canopy. A written Specification and location of re-inforced load bearing surface to be submitted and approved by the LPA before vehicular access is constructed and that tree works within the tree protection area to be supervised by a qualified and experienced arboriculturist. Ground protection for pedestrian traffic within the RPA to be in accordance with BS 5837:2005 Clause 9.3.2.

4.2 SCAFFOLDING WITHIN A PROTECTED AREA:

If it is essential for scaffolding to be erected within a protected area, protective fencing as detailed above is to be erected to provide just enough space for the scaffolding. Care to be taken to avoid damage to tree trunk or branches. (If necessary arboricultural work to be approved and undertaken by a qualified arboriculturalist and be approved by the LPA prior to contruction works). The ground between the protective fencing and and the proposed building to be protected by side butted scaffold boards laid on top of a 100mm layer of compressible material laid on top of a geotextile membrane in accordance with BS 5837, Clause 9, Fig. 3,. Once ground protection measures have been installed, the contractor to inform the LPA.

5.0 ADDITIONAL PRECAUTIONS OUTSIDE FENCED AREAS

5.1 Oil, bitumen, cement or other material likely to be injurious to a tree should not be stacked or discharged within 10m of the edge of retained tree canopies.

5.2 Concrete mixing should not be carried out within 10m of a tree,

5.3 Fires should not be lit within 15m of the canopy of a tree,

5.4 Trees to be conserved should not be used as anchorages for any purposes.

5.5 Notice boards, telephone cables, or other services should not be attached to any part of a tree,

5.6 Trees to be felled that are adjacent to, or that lie within a continuous canopy of trees to be retained, should be removed with particular care. In some cases a tree may have to be removed in sections to avoid damage.

5.7 Allowances must be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.

6.0 EXISTING LEVELS

Ensure that the levels beneath existing tree spreads of the existing trees to be retained, are maintained to ensure no damage/compaction to root systems which may result in long term damage or failure of tree.

7.0 TREE REMOVALS REQUIRED

The following tree removals will be required to facilitate the proposed Development;

Survey ID	Grade	Common Name	Reason for Removal
T8	C	Sycamore	Poor health*
T16	C	Horse-Chestnut	Poor health*
T17	C	Rowan	Poor health*
T31	C	Sycamore	Within redevelopment site
T32	C	Willow	Within redevelopment site
T33	C	Sycamore	Within redevelopment site
T41	B	Willow	Within redevelopment site
T42	B	Willow	Within redevelopment site
T54	C	Sycamore	Within redevelopment site
T55	C	Sycamore	Within redevelopment site
T56	C	Cherry	Within redevelopment site
T57	C	Sycamore	Within redevelopment site
Group B	B/C	Sycamore	Within redevelopment site

*Tree removals agreed between school and LCC Tree Officer in advance of the Planning Application

Rev.	Description	Date	By	Chk'd
C	Planning Issue	25/02/15	JD	CO
B	General update	22/01/15	JD	CO
A	Planning Issue	17/12/14	JD	CO

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project
ST JULIES
LIVERPOOL SCHOOLS INVESTMENT PROGRAMME

drawing title
TREE REMOVALS AND RETENTION

scale @ A0	1:500		1206-109
date	15/12/2014		C
drn	JD	chk'd CO	

Original paper size (A0) 841x1189mm

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