Whitcher Wildlife Ltd.
Wildlife Consultants.

ALDHAM BRIDGE, WOMBWELL.

OS REF: SE 386 044.

PHASE 1 HABITAT AND PROTECTED SPECIES SURVEY.

Ref No:- **140237/3.**

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1. INTRODUCTION.

1.1. A planning application is being prepared by Riesholm Investments Ltd. to develop an area at Aldham Bridge, Wombwell.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a phase 1 habitat survey of the site to establish whether there are any issues that may affect the proposed works.

1.3. The initial site survey was carried out on 4th March 2014 and this report outlines the findings of that survey and makes appropriate recommendations. A further site visit was undertaken on 14th January 2015 and this showed there had been significant changes in site circumstances.

1.4. Appendices I to III of this report provide additional information on specific species and are designed to assist the reader to understand the contents of this report.

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2. SURVEY METHODOLOGY.

2.1. Prior to visiting the site the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.2. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society:-

* Badger setts.
* Badger latrines or dung pits.
* Badger snuffle holes and evidence of foraging.
* Badger paths.
* Badger prints in areas of soft mud.
* Badger hairs caught on fencing.

2.3. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Rob Strachan, Tom Moorhouse and Merryl Gelling (2011). *Water Vole Handbook: Third Edition*:-

* Water vole burrows.
* Water vole faeces and latrines.
* Water vole feeding stations.
* Water vole runs.
* Water vole prints in areas of soft mud.
* Water vole lawns.
* Predator field signs.

2.4. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs in line with the P Chanin (2003). *Monitoring the Otter* and *Conserving Natura 2000 Rivers: Monitoring Series No10 Guidelines:-*

* Otter prints in soft mud.
* Otter spraints.
* Otter Holts.

2.5. The survey area was searched for mature trees and derelict buildings and where found these were checked for potential bat roosting sites in line with L Hundt (2012). *Bat Conservation Trust Good Practice Guidelines* by looking for the following signs:-

* Holes, cracks or crevices.
* Bat Droppings.

2.6. The land immediately adjacent to the survey area was assessed for bat roosting potential and bat foraging potential. Connective routes and flight lines were also assessed whilst on site and using maps of the area.

2.7. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible, all ponds identified were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.8. The survey area was searched for watercourses and waterbodies and where found all watercourses and waterbodies within the survey area and for approximately 50m in each direction were thoroughly searched for the presence of crayfish where safe to enter the water. The survey was carried out in accordance with the *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish.*

2.9. The survey area was assessed for the potential for reptiles and suitable reptile habitats. Where applicable the area was also searched for the presence of reptiles.

2.10. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.11. This survey was carried out by Laura Hobbs BSc MRes. Since 2013 Laura has had experience in a professional capacity carrying out ecology, protected species and phase 1 habitat surveys. Laura holds degrees in Zoology (BSc) and Evolutionary Biology (MRes), and has completed numerous professional courses run by National Biodiversity Network (NBN), Field Studies Council, Yorkshire Wildlife Trust (and others) in relation to protected species and phase 1 habitat survey methodologies and has completed a traineeship with Yorkshire Wildlife Trust focussing on conservation methods for water voles.

2.12. This survey was also carried out by Ruth Georgiou BSc MCIEEM. Since 2004 Ruth has had experience in a professional capacity as a Wildlife Consultant carrying out ecology surveys and phase I habitat surveys. As a full member of CIEEM Ruth is subject to peer review on an annual basis. Ruth holds Natural England survey licences in respect of bats, great crested newts, white clawed crayfish and barn owls and has held her own or has been

named ecologist on site specific licences for badgers, great crested newts and bats. She also holds a degree in Environmental Science (BSc) and has successfully completed a number of courses run by CIEEM, BCT and FSC in the relative protected species, carrying out phase I habitat surveys and BREEAM assessments.

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3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. Barnsley Biological Records Centre was contacted for records of protected sites and species within 1km of the survey area.

3.1.2. The results show that there are records of a badger sett within 700m of the survey area and water voles within 900m of the survey area.

3.1.3. The South Yorkshire Bat Group was consulted for records of bat roosts within 1km of the survey area.

3.1.4. In summary, the results that are most relevant to the site are following:

- In 2000 a noctule bat was found trapped and badly injured inside a cottage immediately adjacent to the site (thought to be a cottage approx. 10m north west of the site). This is not a confrmed bat roost and noctule bats do not normally roost in buildings.
- In 2004 two baby Common Pipistrelle bats were also found on the path of one of these same cottages.
- In 2006 a maternity roost of unknown bat species was identified on Aldham Crescent approx. 100m west of the site.

3.1.5. There are no records of bat roosts specific to the survey area.

3.1.6. The MAGIC website shows that Stairfoot Brickworks is a Site of Special Scientific Interest (SSSI) 550m to the northwest of the survey area and BAP priority habitat deciduous woodland was found within the survey area. This area includes the south corner of the site and the disused railway bank along the north east of the site.

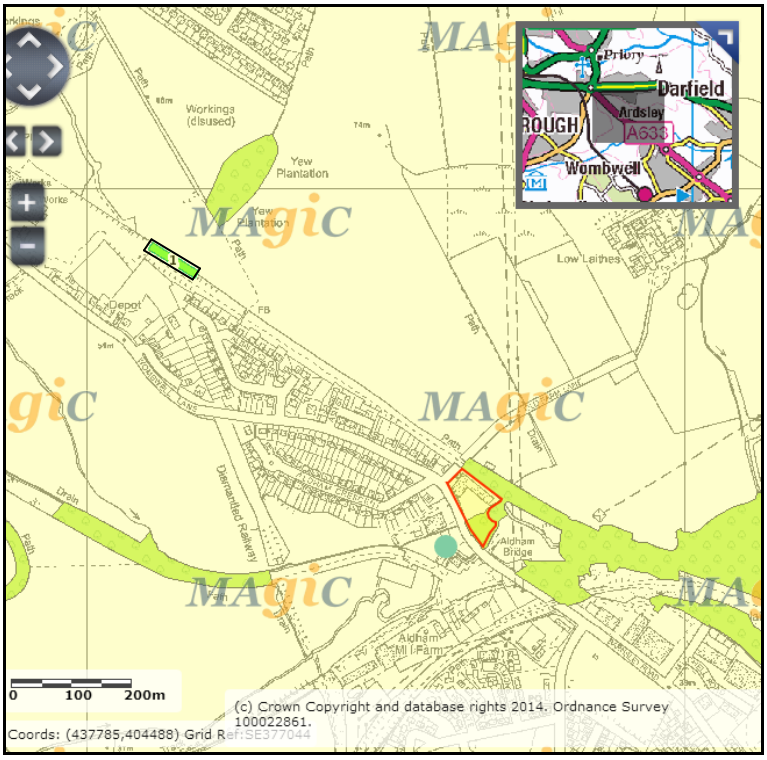


Figure 1. Red outline shows survey area in relation to SSSI (black outline) and national BAP habitats (deciduous woodland depicted in green).

3.1.7. A copy of the desktop data search results are provided in Appendix V of this report.

3.2. The Surveyed Area.

3.2.1. The survey area is located on the northwest edge of Wombwell, on the north bank of the River Dove. The survey area is surrounded by a built up region with residential and business areas to the north and south; to the east is a local BAP habitat of deciduous woodland, past this and to the west are open arable and pastoral fields, areas of scrub and woodland. 550m to the northwest of the survey area is an SSSI (Stairfoot Brickworks).

3.2.2. Below is an aerial map of the survey area and some of its surrounding area, with the limits of the survey area indicated by the red line. The buildings within the survey area have been allocated letter references for the purpose of this report.

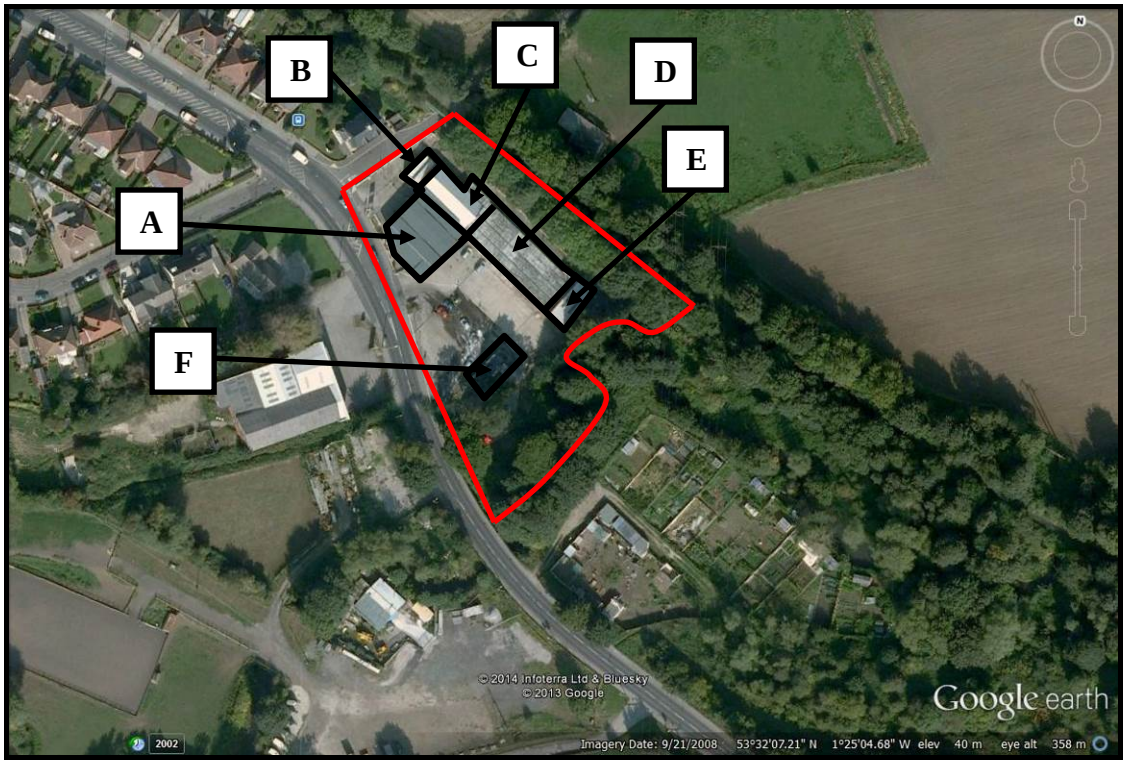


Figure 2. Map of survey site and surrounding area.

3.2.3. The site is predominately hard standing bare ground with two brick buildings, one porta- cabin and a canopy over the northern section of the forecourt. The eastern and southern boundaries are boarded by deciduous woodland, with the River Dove running alongside the southern boundary.

3.3. Description of Habitats.

3.3.1. Appendix IV of this report contains annotated maps with the various habitats found within and adjacent to the survey area. These include:

- Buildings
- Amenity Grassland
- Dense Scrub
- Broad Leaved Deciduous Woodland
- Improved Grassland
- Running Water

3.3.2. Buildings and Hard Standing

3.3.2.1. Building A is located on the northern boundary of the site and consists of brick walls lined with corrugated sheets, a breeze block back wall and the front facing wall comprises mesh gates, wooden doors and brick. It had a flat corrugated roof with clear panels visible. All walls appear to be tightly sealed.



Figure 3. 1) External and 2) Internal features of Building A.

3.3.2.2. Building B is a single story brick/breeze block building with cavity walls, a pitched corrugated roof with a metal ridge and a large roof space containing supporting wooden beams. All windows are boarded up securely. Internal features include a suspended ceiling with small welfare rooms containing plastered ceilings.



Figure 4. 1) External 2) Internal and 3) Roof space features of Building B.

3.3.2.3. The building is generally in good condition; however, there are some gaps between bricks that have been left unpointed in the north gable end (see fig. 5). On inspection these gaps extend into the wall cavity. Gaps were also found where the back wall joins to the roof; these also appear to lead inside the building (see fig. 17).



Figure 5. Gaps in external wall of Building B leading to cavity.

3.3.2.4. Building C is attached to Buildings B and D and is still in use. It has similar features to Building B, including a suspended ceiling, brick cavity walls but with a flat corrugated roof. The brickwork is in good condition with no cracks or gaps.



Figure 6. Building C

3.3.2.5. Building D has a flat corrugated roof with a roller shutter door at the front and a pillar of brick. The southern and back wall of the building is pebble dashed. Everything appears to be well sealed.



Figure 7. Building D

3.3.2.6. Building E refers to a corrugated canopy over the forecourt. It appears to be well sealed.



Figure 8. Building E.

3.3.2.7. Building F refers to some portacabins which are also corrugated and well sealed.

3.3.3. Amenity Grassland.

3.3.3.1. The Western boundary of the site that runs alongside the road comprises of a verge of amenity grassland. Species found here include: dandelion (*Taraxacum officinale*) long leaf plantain (*Plantago*) and common nettle (*Urtica dioica*).



Figure 9. Amenity grassland on Western boundary of site.

3.3.3.2. Other sections of amenity grassland are present in the centre of the forecourt containing some grasses and a conifer (*Pinophyta* spp.).

3.3.4. Broad Leaved Deciduous Woodland.

3.3.4.1. This includes two defined areas on the site, although the habitat and the species present within the habitat are fairly continuous. The first is the north eastern boundary of the site, which is the embankment of a disused railway line that is now used as a public footpath.



Figure 10. Disused railway embankment.

3.3.4.2. The second area includes the banks of the River Dove, along with the area of land within 5m of the top of the bank along the south eastern edge of the survey area.



Figure 11. Broad Leaved Woodland along the banks of the River Dove.

3.3.4.3. This habitat comprises semi mature trees with some scrub and ivy ground cover. Species identified include: Ash (*Fraxinus* spp.), beech *(Fagus sylvatica)*, elm (*Ulmus hollandica*), bramble (*Rubus frutucosus*), hawthorn (*Crataegus monogyna*), rose (*Ulex* spp.), blackthorn (*Prunus spinosa*), Norway Maple (*Acer platanoides*), ivy (*Hedera* spp.), guelder rose (*Viburnum opulus*), sycamore (*Acer pseudoplatanus*), common nettle (*Urtica dioica*) and Japanese Knotweed (*Fallopia japonica*).

3.3.4.4. There are a few large mature trees that create good habitat throughout the site. These are noted in Appendix IV. Some of these have tree preservation orders attached.

3.3.5. Dense Scrub.



Figure 12. Area of dese scrub.

This habitat is a small area that was possibly once part of the broad leaved deciduous woodland habitat. It seems that there has been some clearance of scrub plants, leaving mainly areas of dense bramble (*Rubus frutucosus*) and Japanese Knotweed (*Fallopia japonica*) with thistle (*Cirsium* spp.), dock (*Rumex* spp.), and blackthorn (*Prunus spinosa*) also present.

3.3.7. Running Water.

3.3.7.1. The River Dove flows alongside the south west boundary of the survey area. It is a fast flowing river approximately 5m wide, with no emergent vegetation. The banks are high, steep and bare or have ivy cover due to shading from the trees growing on the banks.



Figure 13. River Dove.

3.3.7.2. There is also a culvert outlet that emerges from under Wombwell Lane in the southern corner of the site. A small volume of water flows out of this culvert and into a concrete channel that leads into the River Dove (depicted in Appendix IV).



Figure 14. Culvert in Southern corner of site leading into River Dove.

3.8. Description of Fauna

3.8.1. No badger setts or other badger field signs were identified within the survey area.

3.8.2. The watercourses surveyed do not provide suitable habitat for water voles or otters due to the banks providing little vegetation cover to provide food or shelter for these species. Some small burrows were identified on the banks, however these are assessed as rat burrows.

3.8.3. The river is assessed as providing low potential for white clawed crayfish. There are no records of this species in the area and they are unlikely to be found at this location due to contamination of the river from adjacent roads and industrial units.

3.8.3. No ponds are shown on the Ordnance Survey map within 500m of the site therefore there are no great crested newts present on the site.

3.8.4. All the buildings on the site were assessed for potential for roosting bats. Gaps in the north gable end brick wall of Building B, which lead into to the wall cavity, may provide a potential roosting habitat for bats (fig.5, 15); although no bat field signs were identified on the exterior walls around these gaps. This could however, be due to the timing of the survey.

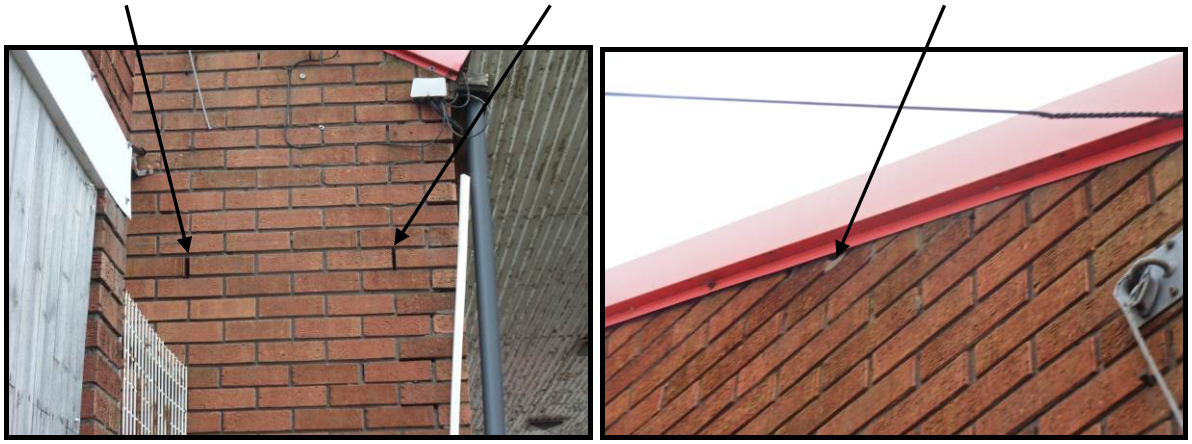


Figure 15. Building B has holes in wall leading to cavity.

3.8.5. These gaps were inspected using a high powered torch. No bat field signs were identified immediately within the openings. It is not possible or practical to fully inspect the wall cavities for bat field signs using an endoscope as the endoscope will not extend far enough and the higher gap cannot be safely accessed.

3.8.6. Gaps along the back wall of Building B (fig.17) offer access to the building for bats. However, no field signs were found inside the building suggesting that they do not roost or feed here. No other potential for roosting bats was identified in any of the other buildings.

3.8.7. Bat roosting potential was found in some of the large mature trees on the site (highlighted in Appendix IV). The main potential was identified on one of the beech (*Fagus* spp.) trees and one sycamore (*Acer pseudoplatanus*) tree. The bat potential is in the form of holes in the trees. There are also some other ivy covered sycamore (*Acer pseudoplatanus*) trees on the bank of the River Dove that may provide some potential for roosting bats.

3.8.8. No bat field signs were found on the exterior of the trees; however this could be due to the timing of the survey.

3.8.9. There is high potential for nesting birds in woodland and scrub vegetation, along with a bird box present on a beech tree (*Fagus* spp.) adjacent to building D.



Figure 16. Nesting bird box on beech tree adjacent to building D.

3.8.10. The buildings also provide potential for nesting birds, as shown by figure 17, where a disused nest was found along the gaps in the back wall of Building B.



Figure 17. Red line highlights birds nest found in building B.

3.8.11. No active nests were found during the survey as it was conducted outside of the nesting season.

3.8.12. Due to the level of disturbance and level of shadow throughout the site it is unlikely that there are any potential refugia or basking sites for reptiles.

3.6.13. Japanese Knotweed was identified growing in two different locations on the site near and on the top of the banks of the watercourses on the site.

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4. EVALUATION OF FINDINGS.

4.1. Although all habitats on the site are common habitats, the MAGIC website shows that the areas of broad leaved deciduous woodland on the site are a BAP priority habitat. The JNCC websites list of priority BAP habitats does not have a category that covers just deciduous woodland. The woodland on the site does not seem to fall directly into any of the categories. Therefore this is a grey area.

4.2. There is an SSSI located within 550m of the site but this will not be affected by the proposed development.

4.3. Some of the large trees on the site have tree preservation orders; however it is believed that permission has been granted for some of these to be felled and there are plans to apply for permission to fell the remaining trees.

4.4. No badger setts or field signs were identified within the survey area. Therefore, there will be no impact on badgers during the works.

4.5. The watercourses within the survey area do not provide suitable habitat for water voles, otters or crayfish. Additionally, a 2m buffer strip will be left between the top of the banks and the development footprint to maintain the habitat along the river corridor. Therefore, the works will have no impact on these species.

4.6. No ponds are shown on maps of the area within 500m of the development site. Therefore, work will have no impact on great crested newts.

4.7. The desk top data search results for the South Yorkshire Bat Group reveal that there is bat activity in the area immediately surrounding the site, including a maternity roost close by. There will be no impact on these roosts as a result of the works.

4.8. There is some potential for roosting bats in the north gable end of Building B. The potential is assessed as being low and is limited to Common Pipistrelle bats. Should bats be roosting in Building B the proposed demolition would have a high impact on roosting bats.

4.9. There are some large trees present (see Appendix IV) that have some potential for roosting bats, these include one beech (*Fagus* spp.) tree and one sycamore (*Acer pseudoplatanus*) tree. Some other large ivy covered trees, located on the bank of the River Dove adjacent to Building D, could offer some potential for roosting bats. Should bats be

roosting in the noted trees (Appendix IV), any work on or near to these trees could impact roosting bats.

4.10. There is potential for nesting birds in the scrub/woodland areas on the site and in the buildings where a disused nest was found (see fig 11.). The nesting bird season extends from March to September. Any vegetation clearance or building demolition works carried out during the nesting bird season could potentially have a high impact on nesting birds.

4.11. There is very low potential for reptiles on the site. Therefore, the work will have no impact on reptiles.

4.12. Areas of Japanese Knotweed (*Fallopia japonica*) were identified on site (see Appendix III). This is a Schedule 9 invasive species of the Wildlife and Countryside Act 1981 and the works will potentially cause the plant to spread.

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5. RECOMMENDATIONS.

5.1. Due to the woodland areas of the site potentially being a BAP priority habitat, it is recommended that before any of the trees on the site are felled permission is first sought from the local authority.

5.2. It is recommended that the species of trees planted on the new site are the same species types as those trees that are removed.

5.3. As potential for roosting bats was identified in Building B and some mature trees, it is recommended that one initial follow up bat dusk emergence survey is carried out between May and August (inclusive). This should be carried out by competent surveyors and allow other general bat activity on the site to be recorded.

5.4. It is recommended that any site clearance including vegetation clearance, tree felling and demolition of buildings, is carried out outside the nesting bird season, otherwise such works should be preceded by a nesting bird survey. Any active nests found should be left undisturbed until the young have fledged.

5.5. Appendix III depicts areas of Japanese Knotweed (*Fallopia japonica*). This is a Schedule 9 invasive species of the Wildlife and Countryside Act 1981. It is recommended that a survey is completed during the peak of the growing season by a competent person before vegetation clearance work begins to define the limits of the areas containing Japanese Knotweed. The plant must then be removed in accordance with Wildlife and Countryside Act 1981 recommendations outlined in Appendix III and disposed of as controlled waste.

5.6. It is recommended that some biodiversity enhancements are incorporated into the new development on the site in the form of at least two of the following:

- Six bat roosting opportunities are incorporated into the new buildings in the form of bat bricks, bat slates, small gaps in the eaves or gaps left under the ridge tiles.
- Six woodcrete style bird nest boxes erected on the new buildings.
- All the japanese knotweed on the site and on the banks of the river is fully eradicated.

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Derek Whitcher BSc, MCIEEM, MCMI.	Date: 25th February 2015.

APPENDIX I. BAT INFORMATION.

It is necessary to understand a little about bats, their basic nature, ecology and legal protection in order to evaluate the findings of this report.

Over 15 species of bat have been recorded in Britain. These fall into two families, the horseshoe bats and the 'ordinary bats'. They are extremely difficult to identify in the hand and even more so in flight.

Bats are highly specialised creatures and require a relatively narrow range of suitable conditions in order to sustain a viable population. Bats require an abundant supply of flying insect food in places where they can easily be caught and they need safe and reliable roosting sites, particularly during breeding and hibernation.

Bats are heavily dependent on buildings and trees for their roost sites and, therefore, extremely susceptible to disturbance from human activities ranging from simple maintenance work through major conversion and renovation schemes to building demolition. Development schemes can also isolate bat populations and sever roost sites from favoured feeding areas, by removing hedgerows and trees that bats use as commuting routes.

Bats are susceptible to disturbance and have been known to abandon roosts sites after instances of disturbance. The effects of disturbance are more pronounced at different times of year. Serious disturbance during breeding can result in the breeding females being killed or the abandonment and subsequent starvation of dependent young. Repeated disturbance during winter hibernation can result in the death of adult animals from starvation.

The level of protection afforded to bats in UK and European legislation reflects the fact that it is now generally accepted that bats have declined substantially, maybe by as much as 60% over recent years. Most species are declining and vulnerable and all are protected.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man made structures and will readily use these to roost and to rear their young.

Bats and their roosts are fully protected at all times (whether the bats are currently present or not). This protection comes from the Wildlife & Countryside Act 1981 (updated by the Countryside & Rights of Way Act 2000) and the Habitats Regulations 1994. Under this legislation it is an offence to intentionally or recklessly kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.

Under the habitats regulations, where bats may be affected by development proposals, a licence is required from Natural England. Natural England's published guidelines on the licence procedure indicate that if, on the basis of survey information and specialist knowledge

of the species concerned, the proposed activity is reasonably likely to result in an offence then, a licence is required. If, on the other hand the proposed activity is reasonably unlikely to result in an offence, then a licence is not required.

Mitigation is required to avoid or reduce the impact of development proposals on the population of bats present, either roosting or feeding. Licences are normally required where a roost site is threatened in some way by a scheme, but might also be necessary where the viability of a roost is threatened by the removal of the availability of crucial feeding habitat.

English Nature in their published guidelines (Bat Mitigation Guidelines Jan 2004) defines the key principles involved. i.e. Mitigation involving changes to the scheme or altering the timing of work to reduce or remove impacts and Compensation, the creation of new replacement roosts or habitats.

English Nature also requires mitigation/compensation to be proportionate to the size of the impact and the importance of the population affected and as a principle:

- There should be no net loss of roost sites and that compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed.

- The scheme should aim to replace like with like in terms of the status of the site. i.e. male roost, maternity roost, hibernation roost etc.

- Compensation should ensure that the affected bat population could continue to function as before so attention may need to be given to surrounding habitats.

Bat roosts can be identified by looking for:-

- Suitable holes, cracks and crevices.
- Bat droppings.
- Prey remains.
- By carrying out night observations using a bat detector.

APPENDIX II. NESTING BIRD INFORMATION.

It is necessary to understand a little about the legal protection offered to nesting birds in order to evaluate the findings of this report.

Part 1.-(1) Of the Wildlife and Countryside Act 1981states that:-

If any person intentionally:-

(a) kills, injures or takes any wild bird;
(b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
(c) takes or destroys an egg of any wild bird,

he shall be guilty of an offence.

Part 1.-(5) of the Act states that:-

If any person intentionally:-

(a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or
(b) disturbs dependant young of such a bird,

he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September.

It is also worth remembering that some birds nest in trees, scrub and buildings but others are ground nesting.

The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

APPENDIX III.
SCHEDULE 9 INVASIVE PLANT SPECIES INFORMATION.

1. Schedule 9 of the Wildlife and Countryside Act 1981 contains a list of invasive species of plant. Species listed under Schedule 9 are prohibited from release into the wild. Schedule 9, Section 14(2) prohibits 'planting' or 'causing to grow' in the wild of any plant listed in Part 2 of Schedule 9.

2. The following is a list of all the species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981.

Common Name	***Latin Name***
Alexanders, Perfoliate	*Smyrnium perfoliatum*
Algae, Red	*Grateloupia luxurians*
Archangel, Variegated Yellow	*Lamiastrum galeobdolon subsp. Argentatum*
Azalea, Yellow	*Rhododendron luteum*
Balsam, Himalayan	*Impatiens glandulifera*
Cotoneaster	*Cotoneaster horizontalis*
Cotoneaster, Entire Leaved	*Cotoneaster integrifolius*
Cotoneaster, Himalayan	*Cotoneaster simonsii*
Cotoneaster, Hollyberry	*Cotoneaster bullatus*
Cotoneaster, Small Leaved	*Cotoneaster microphyllus*
Creeper, False Virginia	*Parthenocissus inserta*
Creeper, Virginia	*Parthenocissus quinquefolia*
Dewplant, Purple	*Disphyma crassifolium*
Fanwort (Carolina Water-Shield)	*Cabomba caroliniana*
Fern, Water	*Azolla filiculoides*
Fig, Hottentot	*Carpobrotus edulis*
Garlic, Three-cornered	*Allium triquetrum*
Hogweed, Giant	*Heracleum mantegazzianum*
Hyacinth, Water	*Eichhornia crassipes*
Kelp, Giant	*Macrocyctis pyrifera*
Kelp, Giant	*Macrocystis angustifolia*
Kelp, Giant	*Macrocystis intergrifolia*
Kelp, Giant	*Macrocystis laevis*
Kelp, Japanese	*Laminarial japonica*
Knotweed, Giant	*Fallopia sachalinensis*

Knotweed, Hybrid	*Fallopia japonica x Fallopia sachalinensis*
Knotweed, Japanese	*Fallopia japonica*
Leek, Few-flowered	*Allium paradoxum*
Lettuce, Water	*Pistia stratiotes*
Montbretia	*Crocosmia x crocosmiiflora*
Parrot's Feather	*Myriophyllum aquaticum*
Pennywort, Floating	*Hydrocotyle ranunculoides*
Potato, Duck	*Sagittaria latifolia*
Primrose, Floating Water	*Ludwigia peploides*
Primrose, Water	*Ludwigia grandiflora*
Primrose, Water	*Ludwigia uruguayensis*
Rhododendron	*Rhododendron ponticum*
Rhododendron	*Rhododendron ponticum x Rhododendron maximum*
Rhubarb, Giant	*Gunnera tinctoria*
Rose, Japanese	*Rosa rugosa*
Salvinia, Giant	*Salvinia molesta*
Seafingers, Green	*Codium fragile*
Seaweed, Californian Red	*Pikea californica*
Seaweed, Hooked Asparagus	*Asparagopsis armata*
Seaweed, Japanese	*Sargassum muticum*
Seaweeds, Laver (except native species)	*Porphyra spp except*
	p. amethystea
	p. leucosticte
	p. linearis
	p. miniata
	p. purpurea
	p. umbilicalis
Stonecrop, Australian Swamp (New Zealand Pygmyweed)	*Crassula helmsii*
Wakame	*Undaria pinnatifida*
Waterweed, Curly	*Lagarosiphon major*
Waterweeds	*All species of the genus Elodea*

3. The Government has acknowledged the problems that can be caused by non-native invasive species. In 2008 the Government launched "The Invasive Non-Native Species Framework Strategy for Great Britain". The strategy provides a framework for a more co-

ordinated approach to invasive species management. It seeks to create a stronger sense of shared responsibility across government, key orgainisations, land managers and the public.
4. The Non Native Species Secretariat has been established to oversee the implementation of the strategy. Details of the secretariat including risk assessments and action plans for some species are available at www.nonnativespecies.org.

5. In general there are four basic methods of controlling weeds; mechanical, chemical, natural and environmental.

5.1. Mechanical control includes cultivation, hoeing, pulling, cutting, raking, dredging or other methods to uproot or cut weeds.

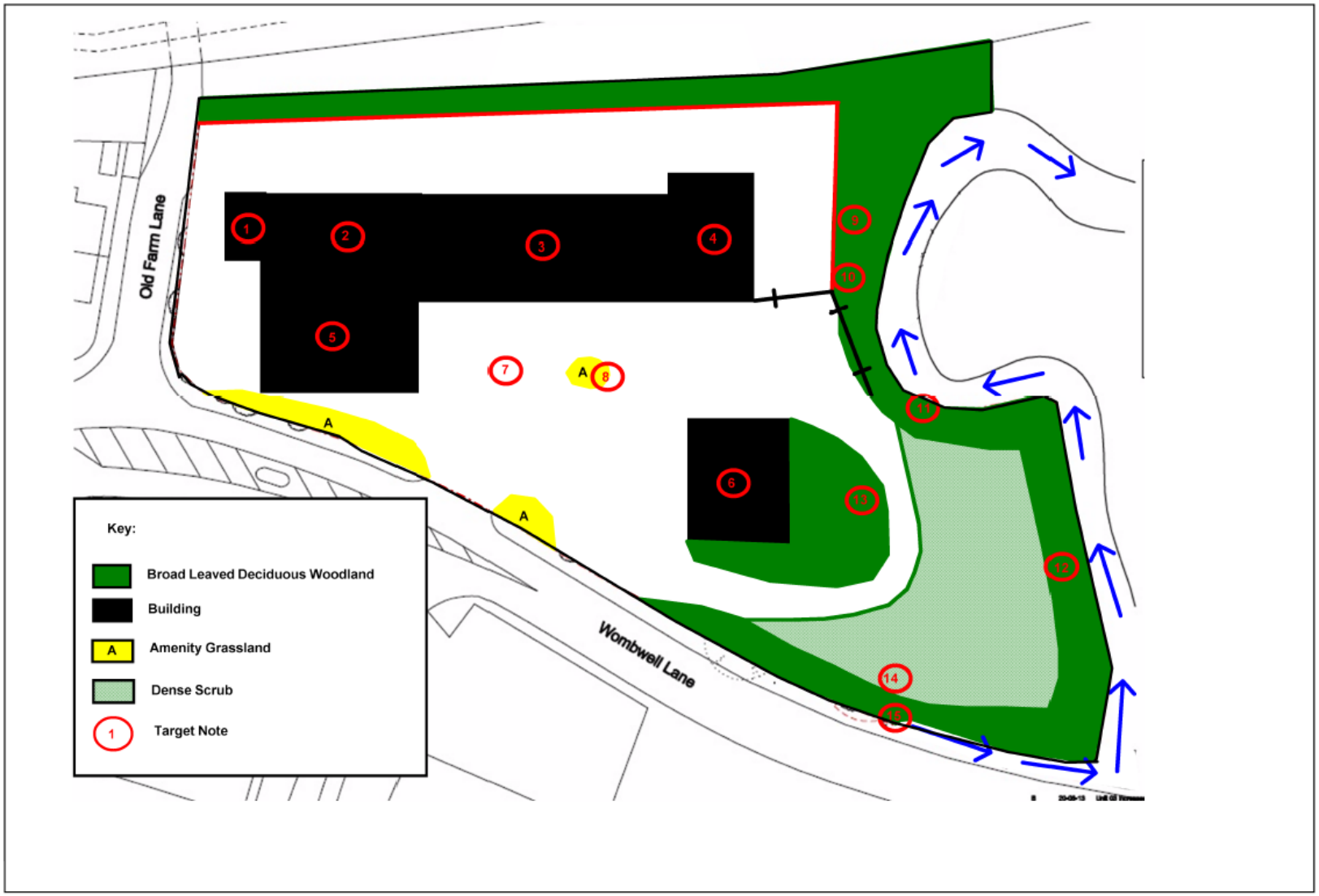
5.2. Where this method is used all plant material must be considered “controlled waste” and must be disposed of properly.

5.3. Chemical control uses approved herbicides.

5.4. Natural control uses pests and diseases of the target weed to weaken it and prevent it from becoming a nuisance.

5.5. Environmental control works by altering the environment to make it less suitable for weed growth, for example by increasing or decreasing water velocity.

Appendix IV. ANNOTATED MAP OF THE SURVEY AREA.



Appendix V. TARGET NOTES.

1. Building A, located on the Northern boundary of the site and consists of brick walls lined with corrugated sheets a breeze block back wall and is lined at the front with mesh, wooden gates and brick along the top edge. It had a flat corrugated roof with clear panels visible. All walls appear to be tightly sealed.

2. Building B, a single story brick/breeze block building with cavity walls, a pitched corrugated roof with metal ridge and a large roof space containing supporting wooden beams and insulation. All windows are boarded up securely. Internal features include a suspended ceiling with small welfare rooms containing plastered ceilings. The building is generally in good condition, however, there are some gaps between bricks that have been left unpointed and the gable end on the North side of the building facing building a (see fig. 5, 9). On inspection these gaps extend into the wall cavity. Gaps were also found where the back wall joins to the roof; these also appear to lead into the wall cavity (see fig. 10).

3. Building C, attached to buildings B and D and is still in use. It has similar features to building B, including a suspended ceiling, brick cavity walls but with a flat corrugated roof.

4. Building D, has a flat corrugated roof with a roller shutter door at the front and a pillar of brick. The Southern and back wall of the building is pebble dashed. Everything appears to be well sealed.

5. Building E, a corrugated canopy over the forecourt. It appears to be well sealed.

6. Building F, Mobile Cabin, corrugated and well sealed.

7. Hard standing concrete floor throughout site.

8. Amenity grassland with *Pinophyta* spp. (Conifer).

9. Large ivy covered trees, could possibly offer potential for roosting bats.

10. *Fagus* spp. (Beech) with bird box.

11. Area containing Japanese Knotweed (*Fallopia japonica*). See Recommendations for how to deal with this.

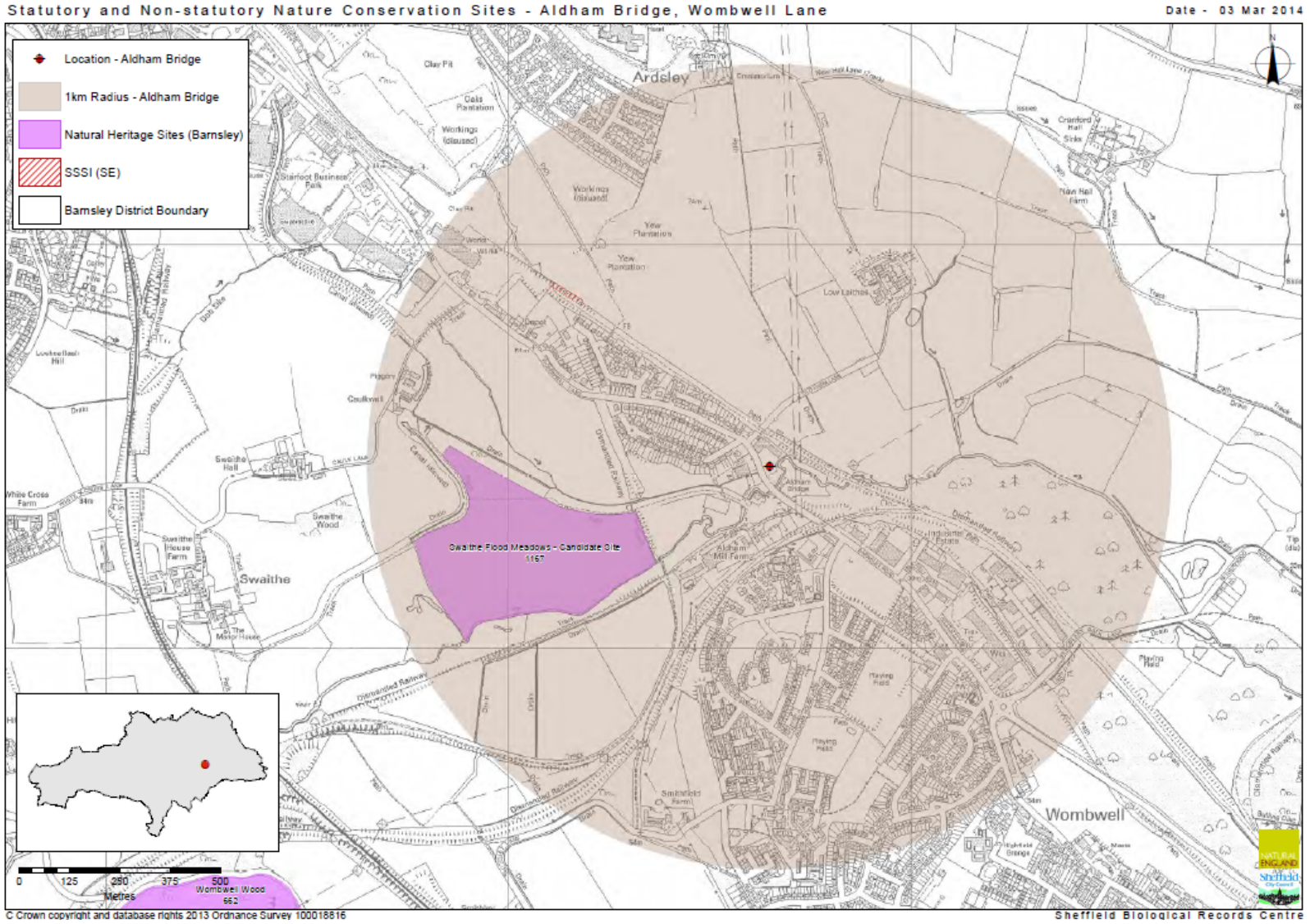
12. Beech *(Fagus* spp.) with potential for bats.

13. Large Sycamore (*Acer pseudoplatanus*) tree with bat roost potential.

14. Area containing Japanese Knotweed (*Fallopia japonica*). See Recommendations for how to deal with this.

15. Culvert running into the River Dove.

Appendix VI. DATA SEARCH RESULTS.



Species and South Yorkshire Bat Group data search results will be appended to this report as it is too large to copy into this report.