Whitcher Wildlife Ltd.
Wildlife Consultants.

CHARLESTOWN ROAD, GLOSSOP.

FOLLOW UP ECOLOGICAL ASSESSMENT OF POND AREA.

Ref No:- **110336.**

Date:- **26th April 2011.**

Cliff Edge, Cliff Road, Darfield, Barnsley, S73 9HR.
Tel. 01226 753271. Fax. 01226 270993.
info@whitcher-wildlife.co.uk www.whitcher-wildlife.co.uk
Company No. 4401613.

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1. INTRODUCTION.

1.1.There are plans to demolish a large area of old factory buildings to the south of Glossop, on both sides of Charlestown Road.

1.2. Whitcher Wildlife Ltd carried out an initial phase I and protected fauna survey of the site on 21st October 2010. Further bat surveys were recommended as well as precautionary measures to be put in place for other issues such as Japanese Knotweed and working in the watercourse. The results of this survey are shown in report reference 101018.

1.3. Whitcher Wildlife Ltd has been commissioned to carry out a follow up ecological assessment, concentrating on the area at the south end of the site that contains some ponds. This was carried out on 5th April 2011 and this report outlines the findings of that assessment and makes appropriate recommendations. This report should be read in conjunction with report reference 101018.

1.4. Appendix I of this report provides additional information on badgers and is 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 within the area and to identify potential access and walking routes.

2.2. The survey area was thoroughly searched for evidence of badger (Meles meles) activity by looking for the following signs:-

* 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. All watercourses within the survey area were thoroughly searched for evidence of water vole (Arvicola terrestris) activity by looking for the following signs:-

* 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. All watercourses within the survey area were thoroughly searched for evidence of otter (lutra lutra) activity by looking for the following signs:-

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

2.5. All mature trees and derelict buildings were checked for potential bat roosting sites by looking for the following signs:-

* Holes, cracks or crevices.
* Bat Droppings.

2.6. The land adjacent to the survey area was assessed for bat roosting and foraging potential including connective routes and flight lines.

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 the ponds 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. All watercourses and waterbodies within the survey area were thoroughly searched for the presence of crayfish where safe to enter the water.

2.9. The survey area was thoroughly searched for the presence of reptiles or suitable reptile habitats.

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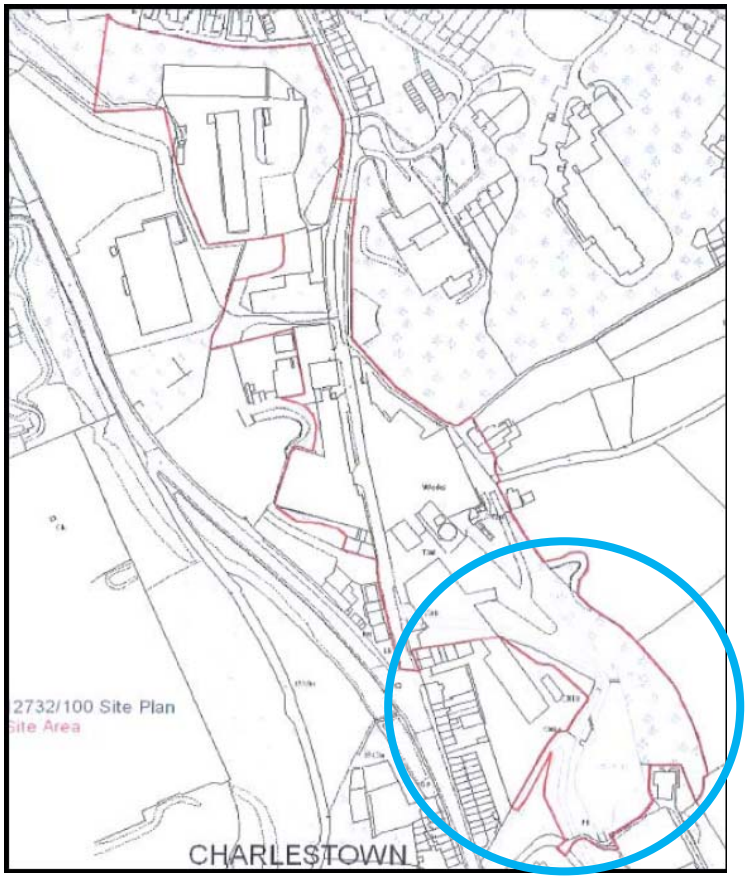
3. SURVEY RESULTS.

3.1. Site Description.

3.2.1. The entire site boundary is outlined with a red line on the map below. The area that was concentrated on during this visit is circled in blue.



3.3. Survey Results.

3.3.1. There are two ponds on the site. A great crested newt Habitat Suitability Index was carried out of both of these ponds along with a night time torch survey.

3.3.2. Pond A is a large pond that contains a lot of submerged vegetation and a band of emergent vegetation across the middle. Plant species identified include sedge, bulrush and iris. It is almost completely surrounded by trees and scrub that overhang the pond shading the edges. A moorhen and ducks were identified on this pond.

3.3.3. Photograph to show pond A.



3.3.4. Great crested newt HSI assessment of pond A.

HSI		**W1**
SI_1	Location	0.5
SI_2	Pond Area	0.95
SI_3	Pond Drying	1.0
SI_4	Water Quality	0.67
SI_5	Shade	0.4
SI_6	Fowl	0.67
SI_7	Fish	1
SI_8	Ponds	0.1
SI_9	Terrestrial Habitat	1
SI_{10}	Macrophytes	0.6
Total score		0.59
Categorisation of HSI.		**Below Average**

3.3.5. No newts or any other amphibians were identified during the torch survey of this pond.

3.3.6. Pond B is a medium sized elongated pond with manmade vertical stone banks. There are some overhanging trees and willow scrub and very little vegetation growing in the water. The water is fairly stagnant.

3.3.7. Photograph of pond B.



3.3.8. Great crested newt HSI assessment of pond B.

HSI		**W1**
SI_1	Location	0.5
SI_2	Pond Area	0.7
SI_3	Pond Drying	0.9
SI_4	Water Quality	0.33
SI_5	Shade	0.6
SI_6	Fowl	0.67
SI_7	Fish	1
SI_8	Ponds	0.1
SI_9	Terrestrial Habitat	1
SI_{10}	Macrophytes	0.3
Total score		0.51
Categorisation of HSI.		**Below Average**

3.3.9. No newts or other amphibians were identified during the torch survey of this pond. Some large clumps frogspawn were identified at the north end of the pond.

3.3.10. The badger sett that was identified during the initial survey was checked during this visit. For the purpose of this report this is labeled as Sett A. The sett remains the same and there were low levels of badger activity identified at the sett during this visit.

3.3.11. Another two badger setts were identified during this visit and are described below.

3.3.12. Sett B is a two entrance badger sett also located on the west facing wooded bank. This is located at grid reference SK 0352 9791 and was identified as a two entrance sett with medium spoil heaps. Only one entrance showed evidence of recent use by badger and badger hairs was identified on the spoil. A well worn badger path was identified leading to and from this sett.

3.3.13. Photograph of sett B looking down the bank.



3.3.14. Sett C is the old dry clay pipe and stone constructed drainage system that extends along the entire west side of pond A, between the pond and the watercourse. A single entrance into this was identified at grid reference SK 0350 9282 and all other entrances are the open ends of the clay pipes. The pipe entrances were well polished during this survey and a badger hair was identified.

3.3.15. Photograph of the single entrance of sett C.

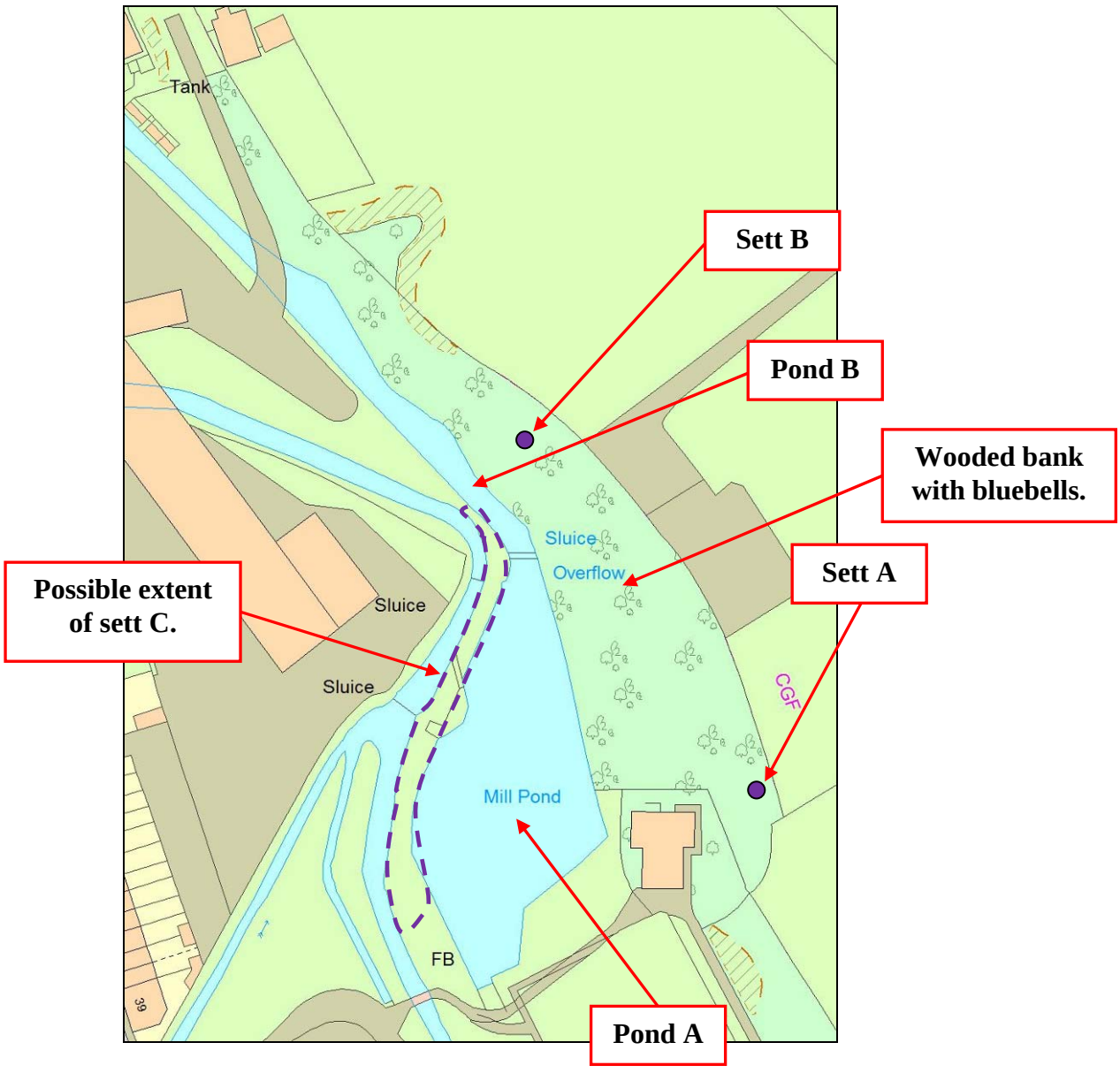


3.3.16. Photograph to show open ended clay pipe.



3.3.17. Bluebells were also identified growing on the west facing wooded bank on the site where setts A and B are located.

3.3.18. Map to show results.



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4. EVALUATION OF FINDINGS.

4.1. The results of the initial phase I and protected fauna survey still stand.

4.2. Both ponds on the site score as Below Average on the great crested newts HSI assessment and no newts or other amphibians were identified during the torch survey. Only some frogspawn was identified in pond B.

4.3. There are therefore no major issues associated with the ponds.

4.4. Sett A still remains the same with low levels of badger activity and a further two badger setts were identified on the site, one on the west facing bank along the east edge and the second in the old dry clay pipe and stone drainage system located along the west side of pond A. These are both assessed as outlier setts.

4.5. Bluebells were also identified growing on the west facing bank on the east side of the site.

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5. RECOMMENDATIONS.

5.1. It is recommended that all personnel working on or near the ponds are briefed on the potential presence of frogs on the site and if any are found they are either moved to a safe place or are left to escape by their own means before works proceed.

5.2. It is recommended that during the development the wooded west facing bank is fenced off along the bottom to prevent any direct disturbance to the bluebells and the badger setts on the bank. If any works are necessary on the bank it is recommended that full details are provided to allow an impact assessment to be carried out. Any high disturbance works to the badger setts may need to be carried out under a Natural England licence.

5.3. It is recommended that a fence is also erected along the north edge of pond B and no works are carried out south of this fence during the main development. It is recommended that any works required south of this are assessed to determine if they will have an impact on sett C and if any Natural England licences will be required.

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Ruth Georgiou.

Natural England Bat Survey Licence Number: - 20104395
Natural England Great Crested Newt Survey Licence Number: - 20101662
Natural England Crayfish Survey Licence Number: - 20104397
Natural England Barn Owl Survey Licence Number: - 20104398

26.04.2011.

Appendix I.

BADGER INFORMATION.

The following background information on the territorial behaviour, ecology and legal protection of badgers is provided to enable the reader to more clearly understand the contents of this report.

1. Territoriality.

Badgers live in social groups called clans and are territorial. Each clan territory can vary considerably in size, from 0.2 sq. km to 1.5 sq. km. The average number of badgers in a clan has been calculated to be six but this number can vary between two and twenty badgers. In areas with a significant badger population there will be contiguous clans and a well-defined boundary between clan territories will exist with the badgers scent marking their boundary with areas of dung pits, called latrines. In areas with relatively low badger populations there will be less competition for territory and the amount of territorial markings will be low or even non-existent.

Territorial boundaries can be defined using a technique called bait marking. Over a two-week period badgers are fed at their main setts with food containing coloured plastic pellets, a different colour at each main sett. The colour of pellet found in dung pits and territorial latrines shows what areas each clan of badgers is occupying.

2. Ecology.

Badgers are omnivorous but their preferred food source is worms and insects. Worms are most abundant in well-grazed pastureland while mixed woodland is a good source of insects and grubs. Badgers have a soft and supple nose with which they snuffle into the ground to find insects. When they do this they leave distinct round holes known as snuffle holes or grubbings. Badgers easily find worms on the surface of well-grazed pastureland and often leave no visible indications of this foraging.

The badger's most important sense is that of smell. They will use particular paths around their territory repeatedly, following a scent trail from previous use. As a result badger paths become well worn. These paths are important to the badgers and obstruction to these paths will interfere with the badger's movement around their territory.

Badgers mate at any time of year but delayed implantation controls the time of birth. Most cubs are born between January and March but they can be born at any time between December and June. An average of two to three badger cubs are born to each sow and will initially be totally dependent on their mother. Cubs do not appear above ground until during April or May when they are 8 – 10 weeks old and are not fully weaned until June of each year.

3. Badger Setts.

A badger sett is any structure or place, which displays signs of current or seasonal use by a badger. Within a badger clan territory there can be several badger setts, which are categorised in the following ways.

Main Sett. There will normally be one main sett in a territory. This will generally be the largest sett in the territory, typically with five or more entrances, will be permanently occupied throughout the year and used as the breeding sett.

Outlying Sett. These are the smallest setts with generally only one or two entrances. They are intermittently occupied and there can be any number in a territory.

Annex Sett. A sett of intermediate size, located close to the main sett and connected by well-defined paths. These are occupied for prolonged periods and may be used as a second breeding sett if there are two breeding sows in the clan.

Subsidiary Sett. A sett of intermediate size, similar to an annex sett but located at some distance from the main sett and not connected to the main sett by defined paths.

4. Legislation

Badgers and their setts are protected by the Protection of Badgers Act 1992. Under the Act it is illegal to:-

- Willfully kill, injure or take a badger or attempt to do so.
- Cruelly ill-treat a badger.
- Interfere with a sett by doing any of the following:-
    - (i) damaging a badger sett or any part of it
    - (ii) destroying a badger sett
    - (iii) obstructing access to a badger sett
    - (iv) causing a dog to enter a sett
    - (v) disturbing a badger while it is occupying a sett.

Penalties for offences under the Act are up to six months in prison and a fine of £5,000 for each offence.

Disturbance to a badger in a sett can be caused by working close to a sett.

Before any work goes ahead which will cause damage to setts or disturbance to badgers, a licence will be needed from Natural England in accordance with their guidelines. To obtain a licence an application must be made giving at least one months notice. This application must include full justification for the work, the manner in which any work is to be carried out, full supporting information and a named person capable of carrying out specialised badger work, to supervise that licence. Natural England will normally only issue such licences for work to be carried out between the months of July and October inclusive, to avoid the breeding season, although exceptions may be possible if a sound justification can be made.