



Baseline Ecological Assessment for Lambley Reed Pond

December 2022

Lambley Reed Pond

Contents

Approval Sheet

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Foreword

Enitial has used its best endeavours, experience, and expertise to provide a meaningful, accurate and relevant representation of any works conducted and information procured. Any works detailed are based on a defined programme and scope of works and any data acquisition and management is in accordance with contract conditions agreed with the Client.

The findings discussed in this document relating to information acquired on behalf of the Client relates only to data and information to which we have had access. It is acknowledged that certain aspects may be superseded or rendered irrelevant by information in documentation to which we have no access.

Enitial cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outside the agreed scope of works.

This report is issued solely to the Client, Enitial does not accept any responsibility to any third parties to whom this report may be circulated, in part or in full, and any such parties rely on the contents at their own risk.

Executive Summary

The ecological survey assessed the habitats present within the site in accordance with those set out in the Phase 1 Habitat Survey Handbook. Habitats and features present within the site and the land adjacent to the site were surveyed for its suitability for protected species and other species of conservation concern.

The site is characterised by an approximately five-acre grazing pasture with a large pond with a small island. The pond is surrounded by patches of small woodland. The site has been community owned since 2021 and local volunteers have started to manage the area for wildlife and the public, by planting native wildflowers and carrying out vegetation management mainly via bramble reduction.

We believe that the Lambley Reed Pond committee has made sensible ecological enhancements to the site. In section 6.0 of the report a number of further ecological enhancements have been given of varying degrees of size for the committee to consider.

1.0 Introduction

1.1 Initial have been commissioned by the Lambley Reed Pond committee to conduct a baseline ecological assessment of Lambley Reed Pond and the associated adjacent terrestrial land.

1.2 The survey assessed the habitats present within the site in accordance with methods set out in the Phase 1 Habitat Survey Handbook. Habitats and features present within the site and the land adjacent to the site were surveyed for their suitability for protected species and other species of conservation concern. It is believed the report is to provide baseline information to produce recommendations for ecological enhancements to the site. These enhancements are detailed in 6.0 Discussion, Recommendations and Further Ecological Enhancements.

1.3 The survey was conducted on the 2/12/22 by a suitably experienced ecologist, Scott Draper. Sarah Rhodes of Lambley Reed Pond committee also accompanied Scott on the survey. At the time of the survey, the weather conditions were overcast, and the air temperature was approximately 4°C.

2.0 Site Description

2.1 Lambley Reed Pond is a small community owned nature reserve. The site is located to the east of Lambley in Nottinghamshire. It is believed that the reed pond has some extensive history, once being a medieval stew or stock pond. The site is approximately five acres in size with the reed pond being found to the western side. The reed pond measures approximately 50m by 30m with a small island. A number of mature trees are found around the pond and within the hedgerows associated to the site. Reed Pond House is a private dwelling and is found to the east with agricultural land beyond. To the north of the site is agricultural land, to the west is the village of Lambley and to the south is Cocker Beck, Park Lane, housing and Lambley Cemetery with agricultural fields beyond. There is a gated public footpath leading from Park Lane across the western edge of the site and exiting in the north-west corner.

2.2 The Reed Pond is considered to be spring fed and rarely dries up.

2.2 The centre of the site is situated at OS grid reference SK 63395 45424.

3.0 Methodology

3.1 Data Search. The National Biodiversity Network (seachnbn.net) was checked for protected species and species of conservation concern within a 1 km radius of the site. Natural Magic Database (www.MAGIC.gov.uk) was consulted for statutory designated sites close to the survey area. Ordinance survey maps (1:25,000) and aerial images of the site were examined online (maps.google.co.uk and bing.com/maps).

3.2 Field Survey. A habitat survey was conducted in accordance with the Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit, Joint Nature Conservation Committee 1990 (2003 edition). Dominant plant species were noted and habitats classified accordingly.

3.3 Hedgerows were assessed in accordance with the Hedgerow Survey Handbook Second Edition, DEFRA 2007.

3.4 Protected and Notable Species. Habitats were assessed and field signs searched for indicating the presence of protected species and species of conservation concern, such as those listed on the UK Biodiversity Action Plan (UKBAP).

3.5 Invasive species were also searched for, particularly Japanese Knotweed, Himalayan Balsam, and Giant Hogweed. Legislation and/or specific guidelines are in place prior to excavation of the soil in which they are found.

3.6 Badgers. A search was made for field signs of Badgers such as latrines, footprints, hairs on fencing and 'snuffle holes' - these are made when searching for invertebrates. Badger setts were also searched for and entrances checked for signs of use by badgers or other animals. Setts are either classified as 'active,' in regular use, with clear entrances; 'inactive' partially used, with debris in the entrance that can be easily cleared; or 'disused,' i.e. predominantly blocked and evidently not been in use for at least a year.

3.7 Bats - Trees. An inspection of any suitable trees on site was conducted with binoculars. Lifting bark, holes, cracks and ivy clad areas were surveyed and recorded for signs of use by bats. Staining from urine or rubbing and scratch marks below potential roost sites were noted. Not all of these field signs and features are visible from the ground so a best effort approach to this type of survey is adopted.

3.8 Bats - Buildings. If buildings had been present then cracks, fascia boards, loose tiles and so on would normally be surveyed from the outside for field signs of bats. Where relevant, access would be obtained to any buildings, attics or roof spaces to be surveyed for urine stains, droppings and rubbed areas.

3.9 Habitats. The habitats within the site were appraised for their suitability as foraging sites or for commuting bats.

3.10 Dormice. The hedgerows were assessed for the likelihood to support dormice. Nests and feeding signs were noted.

3.11 Otters, Water Voles and Freshwater Crayfish. Waterways and water bodies on or adjoining the site were surveyed for field signs of otters, water voles and freshwater crayfish. Field signs would typically include otter spraints, slides and holts and water vole burrows feeding remains and footprints. Any such evidence would be noted and mapped.

3.12 Amphibians. Ponds on the site and within five hundred metres of the site boundary, where possible, were surveyed for their suitability to support amphibians. Terrestrial habitats were also assessed for their suitability to support foraging or sheltering amphibians.

3.13 Habitats on site were assessed for the ability to support reptile species. Suitable refuges were searched by hand and the ground ahead was scanned whilst moving around the site for basking reptiles.

3.14 Birds. Buildings and vegetation were surveyed for signs of use by nesting birds. Birds seen or heard during the survey were also noted.

3.15 Habitats were assessed and field signs recorded of any notable species and species of conservation concern, such as hares and hedgehogs.

3.16 A Habitat suitability Index (HSI) was carried out to score the pond for suitability for great crested newts (GCN). Amphibian and Reptile Groups UK (ARG UK) advice note 5 was followed to give a numerical value of the habitat present, 0 being unsuitable and 1 being optimal.

4.0 Survey Limitations

4.1 The information found in this document is effectively valid for one year. Should any work be conducted on site after a year the results of this document should be reviewed for continued relevance. After three years this survey will be out of date and therefore should not be relied upon, and a full re-survey would be necessary. In general, this survey only offers a single snapshot of the site, no account is made for seasonal differences or for species that subsequently decide to accept residence. A lack of signs of a particular species does not confirm absence, only that there was no indication of its presence at the time of the survey.

4.2 Badger Setts can be found in areas of extremely dense vegetation. The edge of such areas was assessed for tracks heading into the area which may suggest a sett was present but it cannot be guaranteed that all entrances would be found in such areas. Setts may be inactive and well concealed in areas of thick scrub. Badgers can also dig new setts in a noticeably short space of time.

4.3 Bats are exceedingly small mammals capable of getting into ridiculously small holes or crevices. It is possible the presence of bats or field signs of bats might have been missed. A 'best endeavours' approach is only possible when conducting this type of survey but the conclusions do become more dependable with increased numbers of repeat surveys.

5.0 Results

5.1 Data Search

5.1.1 No significant results were obtained from the data search. A number of bat species have been identified over one kilometre away. The specific species are however unknown.

5.1.2 We believe that the reed pond committee has a list of species observed around the site therefore, it may be appropriate to submit your findings to Lambley's local record centre.

5.2 Survey Results - General Description

5.2.1 Lambley Reed Pond is characterised by a large pond with predominantly common reed *Phragmites australis* growing in the shallows. A band of mature native trees such as Ash *Fraxinus excelsior*, Alder *Alnus glutinosa* and Maple *Acer sp.* are present, growing from the bank to circa 25 metres away. The associated grass lands have had areas reseeded with a native wildflower mix which includes yellow rattle, a suitable plant to reduce the amount of grass present via a parasitic relationship.

5.2.2 Hedgerows. A number of hedgerows were identified and deemed to be of good ecological value containing a number of woody species including hazel, hawthorn, elm and maple.

5.2.3 No Badger Setts were found during the survey although field signs, such as footprints and tracks were observed crossing the site.

5.2.4 No trees on site were deemed suitable to support roosting bats however, the site was considered to be a good foraging ground for nearby bat species.

5.2.5 Otters and Water Voles. No field signs of these species were identified during the survey however, with the habitat present this could certainly mean water voles may be present.

5.2.6 Amphibians. The reed pond was considered to have good potential to support amphibians. The surrounding terrestrial habitat was also thought to be good for amphibian populations.

5.2.7 Reptiles. The majority of the site was thought to be a good habitat for common reptile species such as grass snake, common lizard and slow worm.

5.2.8 Birds. The site was thought to have good potential for nesting birds including, in some parts, ground nesting birds.

5.2.9 Invertebrates. The site was thought to provide good habitat for a variety of invertebrate species.

5.2.10 No other species or field signs of other species of conservation concern were noted during the survey.

5.2.11 No invasive plant species were identified on site although we were informed that Himalayan balsam was found at the northeast side but has since been managed/eradicated.

5.2.12 Habitat Suitability Index (HSI). A HSI of the reed pond was carried out and has a score of 0.68. This means it is of an average potential to support GCNs.

6.0 Discussion, Recommendations and Further Ecological Enhancements

6.1 We believe that Lambley Reed Pond committee wish to improve the site from an ecological perspective. This report forms the basis of what should be considered for ecological enhancements and will not be used as part of any planning application. After considering the findings of the site visit and the desk study we believe that the reed pond committee is carrying out well considered and suitable ecological enhancements. In forming wildflower meadows and in some areas, carrying out bramble reduction and such like. Below are some further enhancements that may be considered.

6.2 Management of native tree species on site should be considered, it is generally believed that trees on site were all in a good condition however, with open access to members of the public a suitably qualified arborist may be required to survey the trees for health and safety reasons. Broken limbs and standing dead wood provide a valuable habitat for invertebrates and some bird and bat species although these features may pose a risk to members of the public. Should none of these features be present on-site certain areas could have standing dead wood 'planted' or selected trees could have limbs broken, torn or snapped off and/or ring barked to age or even in some cases kill the tree. Should these techniques be carried out a careful selection of what trees and where to carry out this work should be made. As such work may mean the trees could become a concern for health and safety to the public, there is a need for these areas to be fenced off, keeping members of the public a safe distance away from these trees. Further to this trees that are shading the pond i.e. on the south bank may need to be thinned out to allow more light into the pond. Any trees that are felled can be logged and the logs and brash stacked up to create refuge for mammals, reptiles, amphibians and

invertebrates. These stacks of logs and brash could also be further enhanced and covered, in part by soil, to create hibernacula for hibernating species.

6.3 As previously been carried out, we recommend excessive areas of bramble are continued to be controlled. Although bramble is a good habitat providing nesting, shelter and feeding potential for a range of birds, mammals, and invertebrates, we generally recommend that bramble is controlled in stages e.g. reduced by 1/3rd to 1/5th each year. We often use a ride cutting or glade clearance technique for this. This will allow other plant and tree species to grow and over time will mean bramble clearance on site will not be required.

6.4 Areas of grassland. Open areas of grassland were identified on site, we believe areas of these have now been seeded with wildflower seeds. This is an enhancement we would generally recommend. These areas will require cutting in September/October once the wildflowers have seeded. Once cut it is recommended that the cuttings are cleared up to maintain a low soil fertility, that wildflowers require to thrive. Cuttings should be moved into habitat piles. These piles will supply refuge for a range of species, rot down and may provide a stable temperature for reptile eggs, such as grass snake, to hatch in.

6.5 It was considered that as the reed pond is spring fed it rarely dries up although many parts appeared to have significantly silted up over the years. With the presence of common reed, a programme of desilting may be considered. This will prevent successional vegetation growth that will eventually clog the pond. Such work should be carried out during the winter and where possible the silt should be left near the pond however, with the situation at Lambley Reed Pond this may not be possible so carrying out the work in two or more stages may be preferential. This way the 'seed bed' of invertebrates will not be adversely affected.

6.6 The inclusion of different types of bird and bat boxes should be considered. Bird boxes need to be sited appropriately so the public can not interfere with them. Bat roost boxes should be sited south facing with clear access under the box and at least two and a half metres high on trees. Schwegler produce good bird and bat boxes and can be easily sourced from <https://www.wildcare.co.uk/>. Another approach could be to utilise a local school or community group to make the boxes as a project. Hedgehog houses can also be considered to be installed along the hedgerows. Approximately three houses for a site this large should be sufficient.

6.7 HSI score of 0.68 being of an average potential to support GCNs was largely due to the amount of waterfowl present on the site. With this aside, further enhancements to increase the potential of the pond could include reducing the amount of shade present from surrounding trees. Increasing the amount of macrophyte cover, these are emergent plants especially ones that are suitable for GCNs to lay eggs on, optimal is from 65% to 80% coverage of the pond surface. The estimate for the reed pond was 20%, please be aware due to the time of year that this estimate was made, the actual percentage may be slightly higher. Should you wish to increase the macrophyte cover it is recommended that this is carried out after any desilting work is carried out. The final factor that may wish to be considered is the creation of further suitable ponds around the site. Suitable ponds would be from five hundred to seven hundred m² and be around one and a half metres deep.

Appendix A

Picture of site and surrounding areas



**Lambley Reed Pond
Aerial Plan Showing Location**

Appendix B

HSI Survey data

Great Crested Newt Survey - Habitat Suitability Assessment Form

Site	Lambley reed pond	Pond Ref	
Date	2/12/22	Client	LEFC
Weather		OS ref	
Job No.		Surveyor	SD
Pond substrate <i>unaltered.</i>			
Other relevant info			
Index	Score	SI Score Description	
SI1 - Geographic location	1	1-A (optimal)	
		0.5-B (marginal)	
		0.01-C (unsuitable)	
SI2 - Approx pond Area (m2 nearest 50m2)	0-9	Graph	
SI3- Pond Permanence	1	0.9- Never dries	
		1.0-Rarely drives	
		0.5-Sometimes dries	
		0.1-Annually	
SI4-Water Quality	1	1.0 Good	
		0.67 Moderate	
		0.33 Low	
		0.01 Polluted	
SI5-Perimeter shade	0-6	Graph	
SI6-Presence of water fowl	0-01	1 Absent	
		0.67 Moderate	
		0.01 Major	
SI7-Presence of Fish	0-67	1 Absent	
		0.67 Possible	
		0.33 Minor	
		0.01 Major	
SI8-Pond density	0-1	Graph	
SI9Terrestrial Habbitat	1	1 Good	
		0.67 Moderate	
		0.33 Poor	
		0.01 None	
Macrophyte Cover	0-5	Graph	
HSI score	0-678	<0.5 = poor, 0.5-0.50=Below average, 0.6-0.69=Average 0.7-0.79 Good > 0.8 Excellent	