



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

WILLIAMS WREXHAM

Project name: Williams Wrexham, Dunster Road, Wrexham
Industrial Estate, Wrexham, LL13 9RE

Grid Reference: SJ38404954

Date: 21/12/2023

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the construction of a commercial building at Wrexham Business Park.

Arbor Vitae were commissioned by Creative Planning to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

1.2 SCOPE OF SURVEY

The survey is primarily designed to:

- Identify and record habitats and important ecological features on site;
- Evaluate the potential of the proposed development site to provide opportunities for protected species;
- Determine any likely impact which the development and landscape proposals may have on these.
- Identify opportunities for the enhancement of habitats and biodiversity features on site.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The site is located at Williams Wrexham, a commercial yard off Dunster Road at Wrexham Industrial Park. The surrounding landscape is dominated by areas of hardstanding, road infrastructure and general commercial land use.

The Wrexham Business Park is known to support a number of protected species, including: several bat species, great crested newt, otter and barn owl.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was composed to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap, Data Map Wales and NBN Atlas. The North Wales Wildlife Trust's 'Wrexham Industrial Estate Living Landscape' report was also consulted.

3.2 SITE SURVEY

A site visit was made on 14/12/2023. The survey was carried out in accordance with CIEEM (2017) best practice guidelines. The objective of the survey was to find and record any signs of use by protected species and to note the habitat features present.

An assessment of the available habitats both on and adjacent to the site, plus known species records, led to consideration of the potential of the site for the following protected species:

- Bats
- Breeding birds
- Great Crested Newt

The survey methodology was tailored to evaluate the area for these species in the following ways:

Bats

The site was assessed in terms of its suitability to support bat species. Hedgerow habitat and nearby potential habitat were assessed and recorded and potential impacts from the proposals considered.

Breeding birds

The site was assessed in terms of its suitability to support breeding bird populations. Hedgerow habitat and nearby potential habitat were assessed and recorded.

Great crested newt

A desk study and a ground search were conducted to search for any areas of open water within 250 metres. Waterbodies were then assessed based on the Habitat Suitability Index for great crested newts (Oldham et al., 2000 and ARG UK, 2010).

3.3 PERSONNEL

The survey was carried out by Phillipa Stirling MSc ACIEEM: Ecologist. Natural Resources Wales bat licence number: S091037-1 and GCN licence number: S089109-1.

3.4 CONSTRAINTS

Breeding birds would not have been present at the time of the survey but previous nesting and appropriate nesting sites would have been apparent.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 1km of the site there were the following designations:

Name	Designation	Distance from site
Woodland at Clwyedog Road East	Semi-Natural Ancient Woodland	0.9km
The Oaks	Wildlife Site	0.2km
Erlas Black Wood	Wildlife Site Restored Ancient Woodland	0.7km
Bryn Lane Nature Reserve	Wildlife Site	0.8km
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. ¹		

Results from the desk study revealed that within a 1km radius of the proposed development site the following protected species have been recorded:

¹ **SSSI:** Site of Special Scientific Interest, **SAC:** Special Area of Conservation, **SPA:** Special Protection Area, **LWS:** Local Wildlife Site **NNR:** National Nature Reserve, **LNR:** Local Nature Reserve.

Species	Distance	Protection
Mammals		
Otter	0.6km	European Protected Species, Wildlife and Countryside Act 1981.
Common pipistrelle Brown long-eared Whiskered Lesser horseshoe	0.3-1km	European Protected Species, Wildlife and Countryside Act 1981.
Birds		
Linnet Cuckoo Kestrel Black-headed Gull Herring Gull Skylark Spotted Flycatcher Reed Bunting Curlew Lapwing House Sparrow Tree Sparrow Starling Song Thrush Duncock Bullfinch Yellowhammer Yellow Wagtail Grasshopper Warbler Barn owl (Wildlife and Countryside Act 1981) Hobby (Wildlife and Countryside Act 1981)	0.3-1km	S.42 NERC Wildlife and Countryside Act 1981.
Reptiles		
Adder	0.8km	Wildlife and Countryside Act 1981.
Slow worm	0.7km	Wildlife and Countryside Act 1981.
Amphibians		
Great crested newt	0.6km	European Protected Species, Wildlife and Countryside Act 1981.

4.2 HABITATS ON SITE

All habitats are classified using JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010).

Hardstanding

The proposed site is currently part of the commercial yard at Williams Wrexham, consisting of gravelled areas with raised kerb stones around the edges.

Bramble scrub/ruderal

There is a small corridor of vegetation along the south and west boundary of the site which has developed without any intervention. Small amounts of bramble are present, with a varied assemblage of plants and bare earth dominating. Species recorded include: wild strawberry, bristly ox-tongue, rosebay willow herb, hog weed, common nettle, dog rose, false oat grass and 3 laurel shrubs (which appear to have been planted).

4.3 ADJACENT HABITATS

Hedge

The west boundary of the site is set on a steep embankment, sloping away to the west. There are a number of shrubs including elder, cherry laurel and snow berry, with no real form.

Individual trees

A small group of common alder is located beyond the wet boundary. There is around a 4m drop in ground levels in this area, with the site being raised above the area in which the trees are growing.

Buildings

A new building sits immediately south of the site and existing commercial buildings are located to the east and north of the site.

Hardstanding

The land surrounding the site is dominated by hardstanding in the form of either gravel or tarmac.

4.4 PROTECTED SPECIES

Bats

There are no structures present at the site which provide suitable roosting opportunities for bat species.

The group of common alder at the west boundary do not provide any potential roosting features, confirmed by a ground level inspection.

The site is not particularly well-linked to areas of natural vegetation via linear landscape features and it is unlikely that bats frequent the site.

Breeding birds

No evidence of previous or current nesting was identified within the site boundary. The habitats on site (hardstanding) do not provide suitable habitat/opportunity for breeding birds or nest-building.

Great Crested Newt

One pond is located approximately 250m north west of the site although Data Map Wales presents this area as 'wetland'. The general habitat appears to be a series of pools, and running water, with common alder dominating the vegetation. Blackthorn, hawthorn and downy birch were also recorded with reedmace, pendulous sedge, water mint and fool's water crest present. The area is connected to a series of drains which run through the industrial park and the pond itself is separated from the site by numerous large commercial buildings, main roads and extensive areas of hardstanding.

Pond 1 provides 'average' suitability as a breeding site for GCN although extensive survey work has been carried out at Wrexham Industrial Site and breeding ponds have previously been confirmed. This area does not appear to be a breeding site for GCN which could be due to a number of factors, including the dense shading around the margins and connection to a large drain.

GCN HSI Calculator

Pond Name		Pond 1
SI No	SI Description	
1	Geographic location	1
3	Pond permanence	0.9
4	Water quality	0.5
5	Shade	0.2
6	Water fowl effect	0.67
7	Fish presence	0.67
8	Pond Density	1
9	Terrestrial habitat	1
10	Macrophyte cover	0.4
HSI Score		0.66
Pond suitability (see below)		<i>Average</i>

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

Hardstanding

The proposals will take place exclusively on this type of habitat, with no requirement for vegetation removal. The new commercial building will have no impact upon protected or priority habitat.

Bramble scrub/ruderal

The proposals will not necessitate the removal of the small area of vegetation along the south and west boundary of the site.

5.2 PROTECTED SPECIES ASSESSMENT

Bats

The proposed plans will have no impact upon existing roosting sites, potential foraging areas or any established linear landscape features which may be used by commuting bats. Overall, the proposals are unlikely to have any impact upon bat species and no further survey work is required.

Given the presence of the small line of vegetation and alder trees at the west boundary, a Wildlife Sensitive Lighting Plan will be adopted as a precaution.

Breeding birds

The proposals will have no impact upon features which are likely to provide nesting sites for breeding birds. No evidence of nesting was found at the site during the survey and no further survey work will be required.

Precautionary measures will be adopted to remove any residual risk.

Great crested newt

There are no records of GCN within 500m of the site. The closest known breeding pond is at Bryn Lane which is around 600m from the site boundary. The site itself does not provide suitable terrestrial habitat for GCN, nor suitable ground-level links to other nearby habitat.

Studies have demonstrated that 95% of all summer refuges of GCN fall within 63m of their summer breeding pond (Jehle, 2000). Subsequent studies also found that capture rates

of GCN were at their highest within 50m of a breeding site with a significant reduction in capture rates beyond 100m (Cresswell and Whitworth, 2004).

The proposals are highly unlikely to have any impact upon GCN. In order to remove any residual risk, precautionary measures will be adopted.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

Habitat mitigation will not be required in this instance given that the site is currently comprised of hardstanding alone.

6.2 PROTECTED SPECIES MITIGATION

Bats

The following measures will be included in plans for external lighting at the site:

- Hedgerows and key habitat features including mature trees on the site will not be illuminated in order to retain dark movement corridors for nocturnal wildlife.
- Any exterior security or decorative lights to be installed on the development site will be less than 3 m from the ground and fitted with hoods to direct the light below the horizontal plane, at an angle of less than seventy degrees from vertical, and shall not be fixed to, or directed at, bat boxes or gables or eaves.
- Security lighting will be set on motion sensors with short timers (<1 minute) and will be LED with a passive infrared trigger.
- External lights will be hooded and directed toward the ground to reduce upward light spill.

Breeding birds

Before works begin at the site, the trees and shrubs at the west boundary will be thoroughly searched for any sign of nesting activity. If nesting is recorded, a minimum 5m buffer will be implemented around the nest until all young have fledged.

Great crested newt

The following measures will be implemented to remove any risk of injury:

- If piles of rubble, logs, bricks, other loose materials or other potential refuges are to be disturbed, this should be done by hand and carried out during the active

season (March to October) when the weather is warm to allow animals to disperse naturally.

- All building materials, rubble, bricks and soil must be stored on raised platform (e.g. wooden pallets) to prevent their use as refuges by wildlife.
- Where possible, trenches should be opened and closed in the same day to prevent any wildlife becoming trapped. If it is necessary to leave a trench open overnight then it should be provided with a means of escape in the form of a shallow ramp.
- Any open pipework should be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.
- Any common reptiles or amphibians discovered should be allowed to naturally disperse. Advice should be sought from an appropriately qualified and experienced ecologist if large numbers of common reptiles or amphibians are present.
- If a great crested newt is discovered at any stage then all work must immediately halt and an appropriately qualified and experienced ecologist and Natural Resources Wales will be contacted for advice.

6.3 ECOLOGICAL ENHANCEMENT

Ecological enhancement opportunities at the site are limited due to its commercial nature, however, wildlife boxes will be installed onto the exterior of the new building as follows:

- 2x Woodcrete house sparrow terraces to be installed at least 3m from ground level at the west elevation of the new building.
- 2x Woodcrete open-fronted nest boxes to be installed at least 2.5m from ground level at the south facing elevation of the new building.

7 SUMMARY

Planning permission will be sought for the construction of a commercial building at Wrexham Business Park.

Arbor Vitae were commissioned by Creative Planning to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

The Wrexham Business Park is known to support a number of protected species, including: several bat species, great crested newt, otter and barn owl.

The proposals will take place exclusively on this type of habitat, with no requirement for vegetation removal. The new commercial building will have no impact upon protected or priority habitat.

The proposals will not necessitate the removal of the small area of vegetation along the south and west boundary of the site.

The proposed plans will have no impact upon existing roosting sites, potential foraging areas or any established linear landscape features which may be used by commuting bats. Overall, the proposals are unlikely to have any impact upon bat species and no further survey work is required.

Given the presence of the small line of vegetation and alder trees at the west boundary, a Wildlife Sensitive Lighting Plan will be adopted as a precaution.

The proposals will have no impact upon features which are likely to provide nesting sites for breeding birds. No evidence of nesting was found at the site during the survey and no further survey work will be required.

Precautionary measures will be adopted to remove any residual risk.

There are no records of GCN within 500m of the site. The closest known breeding pond is at Bryn Lane which is around 600m from the site boundary. The site itself does not provide suitable terrestrial habitat for GCN, nor suitable ground-level links to other nearby habitat.

The proposals are highly unlikely to have any impact upon GCN. In order to remove any residual risk, precautionary measures will be adopted.

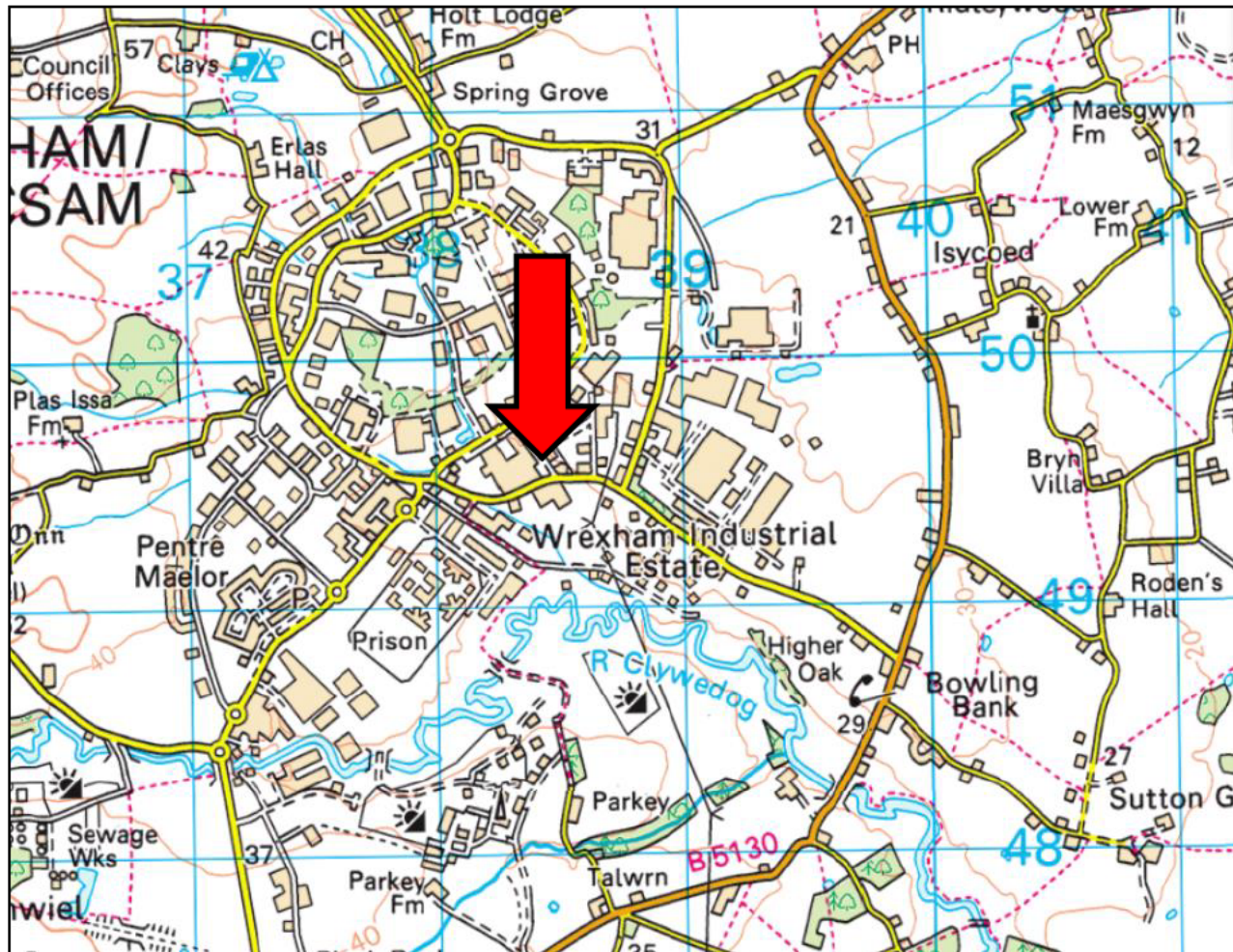
Ecological enhancement opportunities at the site are limited due to its commercial nature, however, wildlife boxes will be installed onto the exterior of the new building as follows:

2x Woodcrete house sparrow terraces and 2x Woodcrete open-fronted nest boxes.

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FIGURE 1 LOCATION



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FIGURE 2 AERIAL PHOTOGRAPH



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FIGURE 3 PROPOSED SITE PLAN

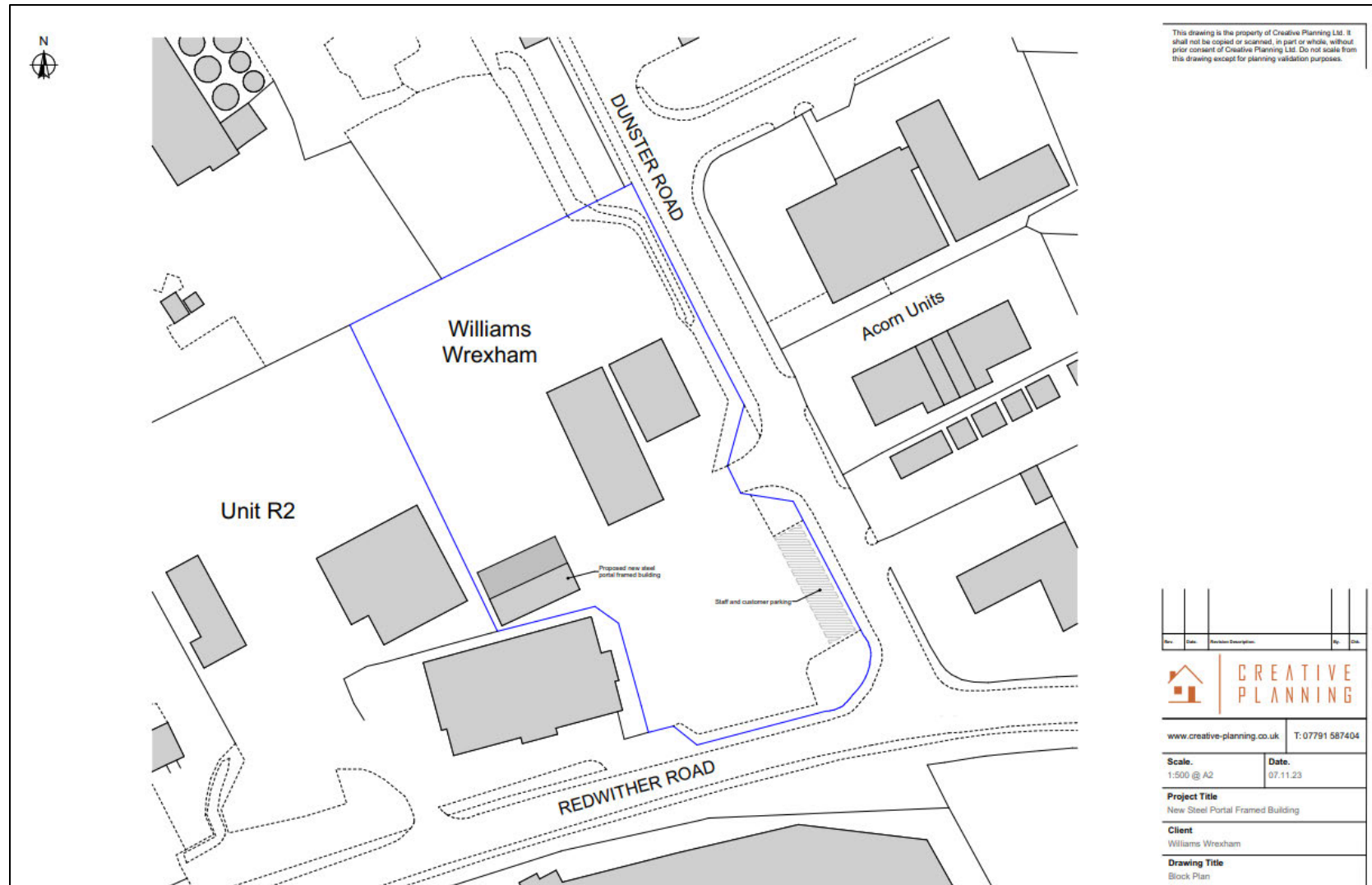
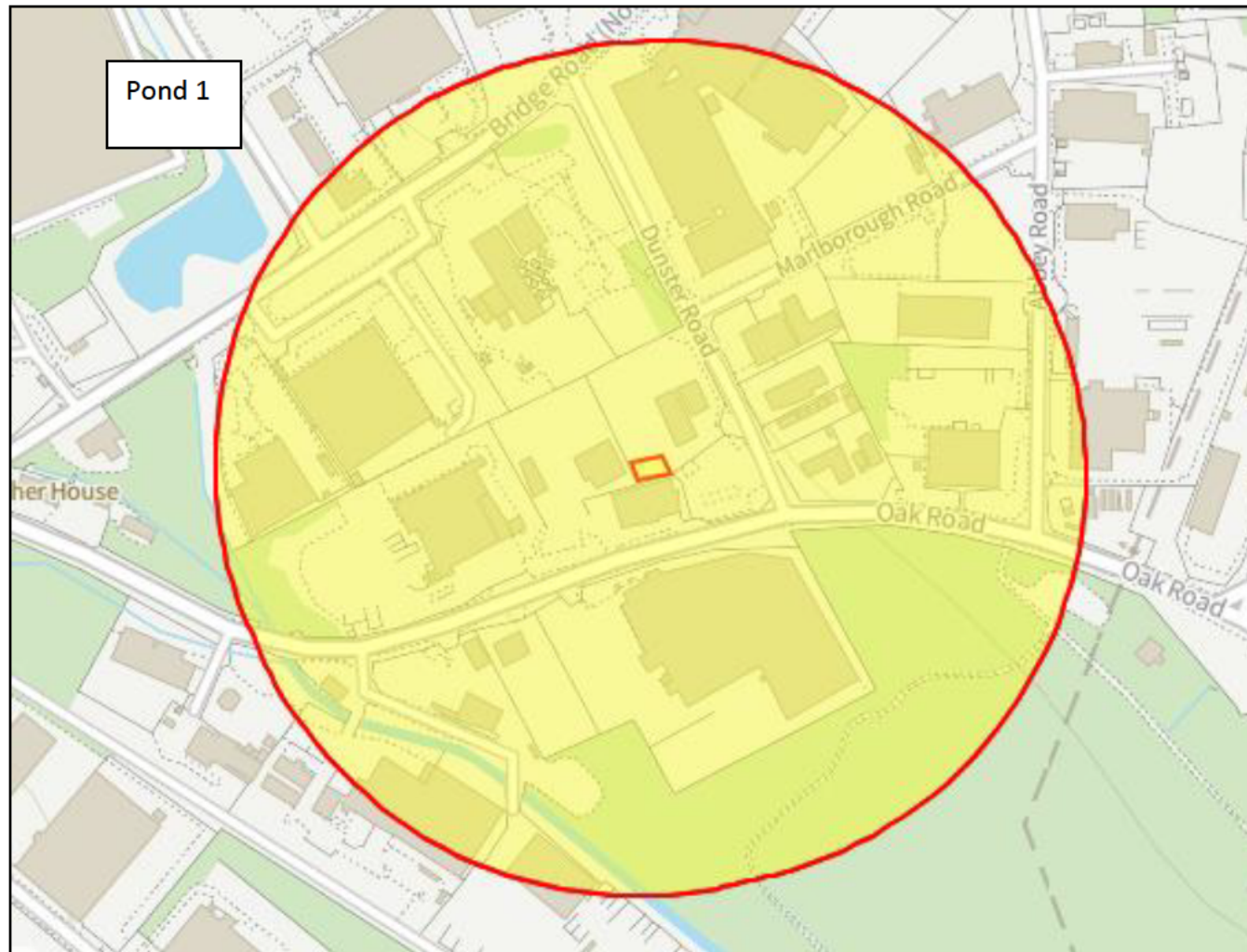


FIGURE 4 250M BUFFER WITH PONDS



APPENDIX 1 PHOTOGRAPHS



The site. Adjacent new unit seen on left.



Bramble & ruderal along the south boundary.



Area to be built on is gravel.



West boundary- laurel and alder pictured



Pond 1



Pond 1 surrounding habitat



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