



**BIOSECURITY RISK ASSESSMENT
PONT ADAM CRESCENT, RUABON**

Stapeley House
London Road
Stapeley
Nantwich
Cheshire
CW5 7JW

www.cheshireecology.com
01270 611125

EXECUTIVE SUMMARY

Cheshire Ecology Ltd. has been commissioned by S G Estates Ltd. to prepare a Biosecurity Risk Assessment for the development of land in Ruabon, Wrexham County Borough, Wales.

This Biodiversity Risk Assessment has been requested as a planning condition by Wrexham County Borough Council.

The site will be inspected by a suitably qualified and experienced ecologist (the Ecological Clerk of Works or EcoW) no more than two days before the site is cleared. The EcoW will inspect the site for evidence of invasive plants, nesting birds or other protected species.

All contractors will receive a toolbox talk from the EcoW before work commences on site. The toolbox talk will explain what protected species may be present on site and how they are protected by law.

The site will be inspected for evidence of badgers before development starts.

There are only two trees with high bat potential on the site. The large mature oak tree (T32) in the centre of the site will be surrounded by a 10m buffer zone during construction and enclosed by Heras fencing. No construction work will take place within the buffer zone and no bright lights will be directed towards the tree. Smoking will not be permitted near the tree and no fires will be started within 30m of it.

The second tree with bat potential is a senescent Norwegian maple (T25) near Pont Adam Crescent. This tree has a rotting trunk and has a cavity approximately 4m above ground level. The cavity will be assessed by a suitably qualified ecologist, who will determine whether it needs to be checked with an endoscope by a licensed bat worker.

A copy of this Risk Assessment will be placed in the site office before work commences.

CONTENTS

1	INTRODUCTION	4
2	METHODOLOGY	6
3	LOCATION OF CLOSEST HOSPITAL.....	11
4	REFERENCES	12

FIGURES

Figure 1: Site location

Figure 2: Location of Wrexham Maelor Hospital

1 INTRODUCTION

- 1.1.1 Cheshire Ecology Ltd. has been commissioned by S G Estates Ltd. to prepare a Biosecurity Risk Assessment for the development of land in Pont Adam Crescent, Ruabon, Wrexham County Borough, Wales, henceforth referred to as 'the site'. The centre of the site is located at OS Grid Reference SJ29619 43639. The site is roughly triangular in shape and located at a height of approximately 135m AOD. The location of the site is shown in Figure 1.
- 1.1.2 The Biodiversity Risk Assessment has been requested as a planning condition by Wrexham County Borough Council. It has been prepared by Dr Martin Page MCIEEM from Cheshire Ecology Ltd.
- 1.1.3 The site is bounded to the north by a residential road, Pont Adam Crescent. A children's playground and a railway line form the eastern boundary and the A593 Ruabon to Llangollen road, the southern. The western boundary is shared with 'Tir-y-fron', a private house with a large garden.
- 1.1.4 The site is located to the west of Ruabon town centre and immediately north of the A593. Offa's Dyke is situated a short distance to the west and a railway cutting to the east. The ground is roughly level, but slopes away to the southeast and drops sharply to the south. The site is open, but there is little evidence of recreational pressure and no litter or building rubble is apparent. The majority of the land to the south and west is used for agriculture and to the north and east for residential housing.



Figure 1: Site location

1.1.5 The most important habitats within the site boundary are, in order of importance:

- Neutral grassland
- Trees
- Hedgerows
- Scrub
- Tall ruderal vegetation

1.2 Context

1.2.1 Enzygo Ltd. undertook a Preliminary Ecological Appraisal (PEA) of the site in 2014 (Enzygo, 2014). Cheshire Ecology Ltd. subsequently carried out a reptile survey (Cheshire Ecology Ltd., 2014a) and a preliminary roost assessment for bats (Cheshire Ecology Ltd., 2014b).

1.2.2 The majority of the site is covered by rank mesotrophic grassland, dominated by false-oat grass *Arrhenatherum elatius*. Common associates include Yorkshire Fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, cow parsley *Anthriscus sylvestris* and hogweed *Heracleum sphondylium*.

1.2.3 Bramble scrub *Rubus fruticosus* is common around the margins of the field, with patches of rosebay willowherb *Chamerion angustifolium* near the railway line.

1.2.4 To the south a line of trees borders the A539. This is mainly composed of sycamore *Acer pseudoplatanus* and beech *Fagus sylvatica*. A single oak tree *Quercus robur* (T32) is located in the centre of the field.

1.2.5 The tree numbers referred to in the report are taken from the Phase 1 Tree Survey, undertaken in 2014 by Tree Solutions Ltd. (Tree Solutions Ltd., 2014).

1.3 Potential biodiversity impacts

1.3.1 The PEA found no evidence of badgers, but considered that the site offered good quality reptile habitat. A mature pedunculate oak tree *Quercus robur* (T32) was assessed as having high potential as a bat roost (Enzygo, 2014).

1.3.2 Cheshire Ecology Ltd., carried out a more detailed bat survey in 2014 (Cheshire Ecology Ltd., 2014b) and a bat activity transect of the immediate area. The survey concluded that the great majority of bat activity was confined to the nearby Llangollen Road.

2 METHODOLOGY

2.1 Site preparation

- 2.1.1 The site will be inspected by a suitably qualified and experienced ecologist (the Ecological Clerk of Works or EcoW) no more than two days before the site is cleared. The EcoW will inspect the site for evidence of invasive plants, nesting birds or other protected species. No vehicles will be allowed on the site until the ecologist has confirmed that there is no risk to protected species. Any invasive plant species will be identified with red and white boundary tape.
- 2.1.2 All contractors will receive a toolbox talk from the EcoW before work commences on site. The toolbox talk will explain what protected species may be present on site and how they are protected by law.
- 2.1.3 The vegetation will be cut back to a height of 20cm a few days before development commences. This will allow any wildlife that is present to disperse to other locations. The vegetation will be cut down to ground level approximately 24hrs before work commences under the supervision of the EcoW or his/her assistant. The vegetation will be maintained at a maximum height of 20cm until the development has been completed to deter reptiles from re-colonising the site.
- 2.1.4 A copy of this Risk Assessment should be placed in the site office before work commences.

2.2 Badgers

- 2.2.1 The site will be inspected for evidence of badgers before development starts. Badgers are protected by law and it would be illegal to disturb them if there is a sett on or near the site. Enzygo (2014) found no evidence of badgers on the site and none was found by Cheshire Ecology Ltd. when they were carrying out the reptile survey. However, Enzygo found seven records of badgers within 2km of the site and there is always a risk that they could be present.
- 2.2.2 To avoid an offence under Section 3 of the Protection of the Badgers Act 1992 (as amended) no heavy machinery (such as heavy dumper trucks or 360 degree excavators) will be used within 30m of an active badger sett.
- 2.2.3 To prevent injury to badgers, Heras fencing will be erected around any open excavations at the end of each working day. A plank will be placed in the excavation to ensure that any animals that do fall into the hole can escape. Any existing badger footpaths will not be obstructed.
- 2.2.4 Cheshire Ecology Ltd. (Tel. 01270 611125) will be telephoned immediately if a badger is found in an excavation and is unable to escape by itself. Under no circumstances will the animal be approached. Badgers avoid contact with man, but they are powerful animals and could seriously injure anyone that tried to approach them.

- 2.2.5 All litter will be disposed of carefully at the end of the working day. Badgers can choke on discard polythene bags.

2.3 Bats

- 2.3.1 There are only two trees with high bat potential on the site. The large mature oak tree (T32) in the centre of the site will be surrounded by a 10m buffer zone during construction and enclosed by Heras fencing. No construction work will take place within the buffer zone and no bright lights will be directed towards the tree. Smoking will not be permitted near the tree and no fires will be started within 30m of it.
- 2.3.2 The second tree with bat potential is a senescent (dying) Norwegian maple *Acer palmatum* (T25) near Pont Adam Crescent. This tree has a rotting trunk and a cavity approximately 4m above ground level. The cavity will be assessed by the EcoW, who will determine whether it needs to be checked with an endoscope by a licensed bat worker.

2.4 Birds

- 2.4.1 With certain exceptions, such as game birds, all wild birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended). It is an offence under the Act to:
- Intentionally take, damage, or destroy the nest of any wild birds while it is in use or being built; or
 - Take or destroy the egg of any wild bird.
- 2.4.2 Bird species listed on Schedule One of the Act receive further protection, thus for these species is also an offence to:
- Disturb any bird while is building a nest, or is at a nest containing eggs and young; or
 - Disturb the dependent young of any such bird.
- 2.4.3 All trees and shrubs will be inspected for nesting birds by the EcoW before they are felled. Any bird's nests that are found will be surrounded by a 5m exclusion zone. The buffer zone will be clearly marked by red and white marker tape. The birds will be left undisturbed until the young have fledged.

2.5 Invasive plants

- 2.5.1 Enzygo (2014) did not report any evidence of invasive plants from the site in their Preliminary Ecological Appraisal. However, Japanese knotweed *Fallopia japonica* is very common on undeveloped sites and the plant could have been introduced in fly-tipped soil and rubbish. The site will be inspected by a suitably qualified ecologist before it is cleared so that any plants of Japanese knotweed, Himalayan balsam *Impatiens glandulifera* and giant

hogweed *Heracleum mantegazzianum* can be identified.

- 2.5.2 It is a criminal offence to plant or cause to plant a non-native, invasive plant species that it is listed on Schedule 9 of the Wildlife and Countryside Act in the wild. The offence carries a penalty of up to a £5,000 fine and/or two years imprisonment.

Japanese knotweed

- 2.5.3 Japanese knotweed is included on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) and it is illegal to allow it to be introduced into the wild. The plant is best controlled by spraying or stem injection. The plant can be buried on site if there is sufficient depth of soil or it can be disposed of as controlled, hazardous waste.
- 2.5.4 All contractors should provide a written undertaking that they will not introduce invasive plants to the site. Tracked vehicles must be jet-washed before they are taken on site to prevent Japanese knotweed from being introduced accidentally. Japanese knotweed can grow from a piece of root as small as 1cm long. The roots can extend for 7m or more from the visible part of the plant.

Himalayan balsam

- 2.5.5 Himalayan balsam is included on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) and is highly invasive. Small numbers can be removed by hand and larger quantities can be controlled by cutting the stems below the first node (where the lowest leaves appear).
- 2.5.6 Plants will appear during subsequent years, but will eventually disappear when there is no longer a source of fresh seeds. The plants should be cut down until it has been eradicated from the site. It should be possible to eradicate the plant as there are no water courses near the site that could allow new seeds to become established. Effective control can normally be achieved in 3-4 years.

Giant hogweed

- 2.5.7 Giant hogweed *Heracleum mantegazzianum* is an invasive plant and is included on Schedule 9 of the Wildlife and Countryside Act 1981. The plant contains a toxic sap that causes phytophotodermatitis (PPD) in humans, resulting in blisters and potentially serious scarring. The sap can cause blindness if it contacts the eyes.
- 2.5.8 The plant is unlikely to be an issue at Pont Adam Crescent as there are no streams or rivers near the site. Giant hogweed can be introduced by birds or in contaminated seed, but is unlikely to be a persistent problem if it is controlled before development takes place.
- 2.5.9 Giant hogweed can be controlled effectively with herbicides. A licence must be obtained from the Environment Agency before the chemical can be used near a watercourse. The plant is classed as hazardous waste and can only be disposed of in a licensed landfill site or by burning it on site. Giant hogweed

must be sprayed in the spring if it is to be controlled effectively. The plant is a biennial (growing in one season and flowering in the next) and will grow again if the flowering stems are removed.

2.6 Invasive animals

- 2.6.1 Invasive animals are unlikely to be an issue at this site. The majority of invasive animals, such as signal crayfish and terrapins are aquatic and there are no suitable habitats on site or in the immediate vicinity.
- 2.6.2 New Zealand flatworm and Australian flatworm have been established in the UK for at least forty years. They feed on earthworms and can cause severe damage to soil quality. All plant materials that are to be planted on site will be obtained from commercial nurseries and grown in sterilised compost.

2.7 Lighting

- 2.7.1 Bright lights have the potential to disturb several protected species such as badgers, birds and bats. Artificial lighting will be directed away from trees and kept to a minimum intensity.

2.8 Pollution control

- 2.8.1 Torrential rain can occur at any time of the year in the British Isles and the resulting flooding may be impossible to control once it has happened. It is therefore essential to make provision for the possibility that heavy rain could wash concrete, diesel or other potentially damaging chemicals down into the adjacent, low-lying land (e.g. the Llangollen Road and railway track).
- 2.8.2 Heavy machinery and hand tools will be refilled on level ground. Diesel and petrol cans will be placed in a spill containment tray (a 'Plant Nappy') when they are not in use. The Site Manager will designate an area for the refilling of machinery fuel tanks and power tools.
- 2.8.3 The contractor will keep a supply of sand readily available in case of spillage. This should be stored in the site compound.

2.9 Reptiles

- 2.9.1 No reptiles were found during the reptile survey, but we cannot exclude the possibility that they may be present. The most likely species to be present are slow worm and common lizard. The former would be expected under piles of rotting timber and the latter could be found near the dry-stone retaining wall beside the Llangollen Road.
- 2.9.2 Any reptiles that are found should be translocated to an alternative location close to the site. The EcoW should be present if any large accumulations of rotting timber are removed from the site.

2.10 Rubbish

- 2.10.1 Rubbish must be placed in designated litterbins. The rubbish must be taken off site for disposal.

3 LOCATION OF CLOSEST HOSPITAL

3.1.1 The closest Emergency Department to the site is **Wrexham Maelor Hospital**.

Wrexham Maelor Hospital
Croesnewydd Road
Wrexham
LL13 7TD
Tel. 01978 291100

3.1.2 If approaching from the south on the A483 leave this road at the junction with the A525 (signposted to Ruthin) and turn right to head towards Wrexham. After approximately 1/2 mile take the left-hand turn at the traffic lights. Pass the Yale Hospital on your right and take the second exit at the roundabout into Croesnewydd Road which runs through the Hospital site. The main car parks and main entrance are through Gate 1, which is on your right-hand side after 100 metres.

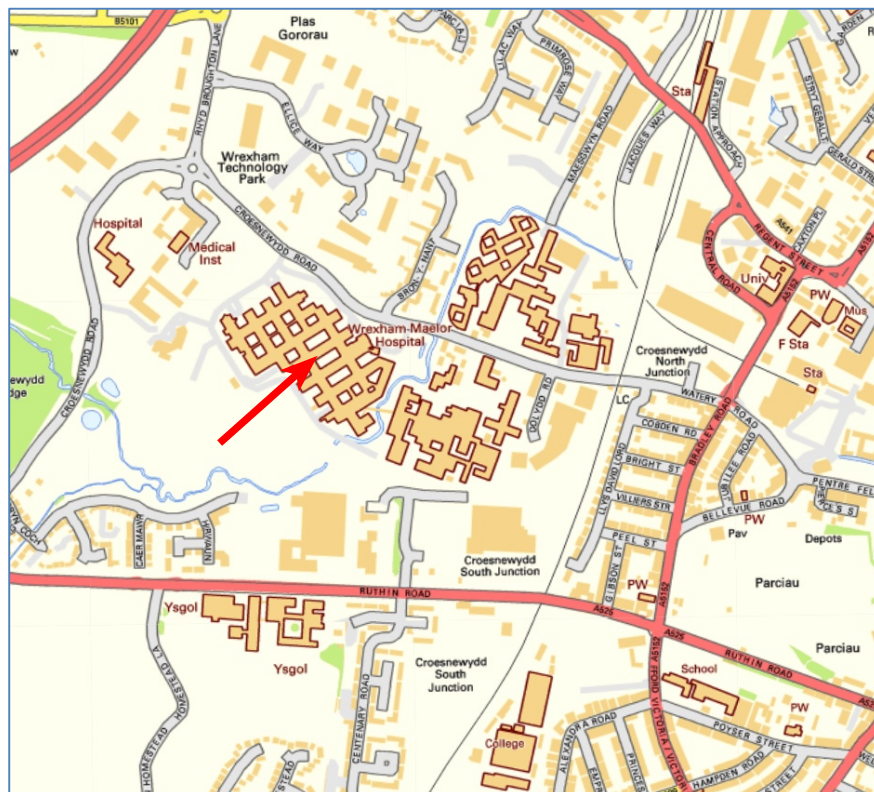


Figure 2: Location of Wrexham Maelor Hospital

4 REFERENCES

- Cheshire Ecology Ltd. (2014a). *Land off Pont Adam Crescent, Ruabon, Wrexham. Preliminary Bat Survey Report (including Tree Condition Survey)*.
- Cheshire Ecology Ltd. (2014b). *Land off Pont Adam Crescent, Ruabon, Wrexham. Reptile Survey*.
- Collins, J. (ed). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd Edition).
- English Nature (2009). *Badgers and Development*.
- Enzygo (2014). *Preliminary Ecological Appraisal v1.2 Pont Adam Crescent, Ruabon, Wrexham LL14 6EH*.
- Gunnell, K., Grant, G. and Williams, C. (2012). *Landscape and urban design for bats and biodiversity*. Bat Conservation Trust.
- Natural England (2009). *Protection of the Badgers Act 1992 (as amended). Interpretation of 'Disturbance' in relation to badgers occupying a sett*.
- Tree Solutions Ltd. (2014). *Phase 1 Tree Survey & Preliminary Tree Constraints/Impact Assessment Plan. Land off Pont Adam Crescent, Ruabon, Wrexham*