

P2019/0250

Greenscape Environmental Ltd

Final		Report Status	
2160 1903R		Report Reference	
Date	Signature	Name	Report by
March 2019		EVANS C. Sheil MZool (Conservation) Assistant Consultant	Report by
March 2019		ECOLOGICAL APPRAISAL B. Jones Lead Consultant	Reviewed by

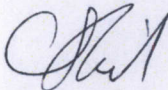
**BUILDING NEXT TO
THE OLD POST OFFICE
HALTON
CHIRK
WREXHAM
LL14 5BG**

MARCH 2019

2160 1903R

Report by Chloe Sheil MZool (Conservation)

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Report Classification:		Ecological Appraisal	
Report Status:		Final	
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	Name	Signature	Date
Report by:	C. Sheil MZool (Conservation) Assistant Consultant		March 2019
Reviewed by:	B. Jones BSc(hons) MSc Lead Consultant		March 2019

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The report should be read in its entirety.

Questions arising from the survey report should be directed to the author of this report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for one year for planning purposes after which time further survey information may be required.

Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

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1 Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Mr Evans to undertake an Ecological Appraisal of the building next to The Old Post Office, Halton, to provide supporting information for a planning application for the demolition of the building and the construction of a dwelling.

The survey report has three principal aims:

- to provide an initial appraisal of the ecological value of the site in local context
- to provide details supporting further surveys that may be required
- to identify potential ecological constraints relating to the development and recommend measures to avoid, reduce or manage negative effects and to provide a net ecological gain

1.2 Methodology

The appraisal of the site included a desk study of the area, reviews of other surveys previously conducted in the area by Greenscape Environmental and a phase 1 environmental appraisal undertaken at the site, OS grid reference SJ30233982 on 21st February 2019 by B Jones and C Sheil.

1.3 Key Issues

Two designated sites were found within the vicinity of the site. The nearest SSSI and SAC are Afon Dyfrdwy (SSSI) and the River Dee and Bala Lake (SAC) both approximately 800m to the southeast. However, connectivity is poor between them with no direct connective features. No negative impact is expected from the development.

Records of protected species within 2km include otter and roof nesting birds. Of particular interest for this site was bats and nesting birds.

The site comprises a workshop and a small area of amenity grassland to the north which is surrounded by an intact hedgerow and post and rail fencing.

The building to be demolished offers negligible roost potential for bats and no evidence of bats was found inside. Phase 2 surveys for bats are not considered necessary. The site will be enhanced with the erection of bat boxes on or around the site.

The building to be demolished also has potential to provide habitat for nesting birds. The demolition of this building is to be done outside of the bird nesting season (February to August inclusive). It is recommended that the site be enhanced with the inclusion of artificial bird boxes.

There is one pond within 250m. It is separated from the site by a road which acts as a barrier. There are some features on site which may provide shelter for GCN. Any newts in the area will be protected by a method statement during works. No further surveys are considered necessary.

1.4 Impacts and Mitigation Measures

It is recommended that the biodiversity is enhanced post-construction with the inclusion of bat and bird boxes. It is also recommended that the landscaping be improved with the inclusion of native species hedgerows and trees.

The method statements provided in this report will be followed, and demolition will be conducted at a suitable time of year to minimise negative impact on birds. There are no ecological constraints to the development as proposed.

2 Introduction

This report has been compiled by Chloe Sheil MZool (Conservation) who has been assisting with conducting ecological appraisals since 2018. It has been reviewed in line with Greenscape's Quality Management System.

For details of surveyors and licences please see Appendix A.

2.1 Project Background

Greenscape Environmental Ltd was commissioned by Mr Evans to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of ecological value, as part of the planning application for the demolition of the building next to the Old Post Office, Halton and the construction of a dwelling in its place.

The project involves:

- Demolition of the building
- Construction of a dwelling
- Landscaping and creation of a driveway
- Instalment of biodigester for sewage
- Service connection

2.2 Purpose of the Report

The aim of this survey is to locate and describe, as far as reasonably practicable, evidence of wildlife, including all protected and Biodiversity Action Plan (BAP) priority species, which may be disturbed or lost in the event of development.

The purpose of the report is to:

1. Identify the key ecological constraints to the proposed development
2. Inform planning to allow significant ecological effects to be minimised or avoided wherever possible
3. Allow any necessary mitigation or compensation measures to be developed following the Mitigation Hierarchy
4. Identify any additional surveys that may be required to inform the ecological assessment
5. Identify the opportunities offered by a project to deliver ecological enhancement

The Local Planning Authority (LPA) will require further information regarding bats as the site meets at least one of the trigger points set out in section 1.2.3.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines, Bat Conservation Trust (2016).

2.3 Planning Policy and Legislation

This section provides a brief summary of the key national and local planning policies and legislation with an intention to identify those to be of most relevance to ecology and provide context to the surveys conducted. Survey findings were considered in line with the following.

The Conservation of Habitats and Species Regulations (2017) – as listed in:

- Schedule 2. European protected species of animals
- Schedule 5. European protected species of plants

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals

Schedule 8. Protected plants

Countryside and Rights of Way Act (2000)

Natural Environment and Rural Communities Act 2006 (NERC 2006)

National Planning Policy Framework (2018): Policy 15 - Conserving and Enhancing the Natural Environment.

Section 7 of the Environment Act (Wales) 2016

ODPM Circular 06/2005: Biodiversity and Geological Conservation-Statutory obligations and their impact within the Planning System

Wrexham Unitary Development Plan – EC6 Biodiversity Conservation

2.4 Site Context and Location

The site is located to the south of Halton, OS grid reference SJ30233982. It is set in a suburban environment surrounded by open fields to the west and north and residential buildings to the east and south. Chirk town is found <1km to the southwest. There is low connectivity to the surrounding countryside via hedgerows which may provide foraging/commuting opportunities for bats or small mammals.

Entrance to the site is currently gained from the unnamed road leading north to Halton. This is likely to remain the same.

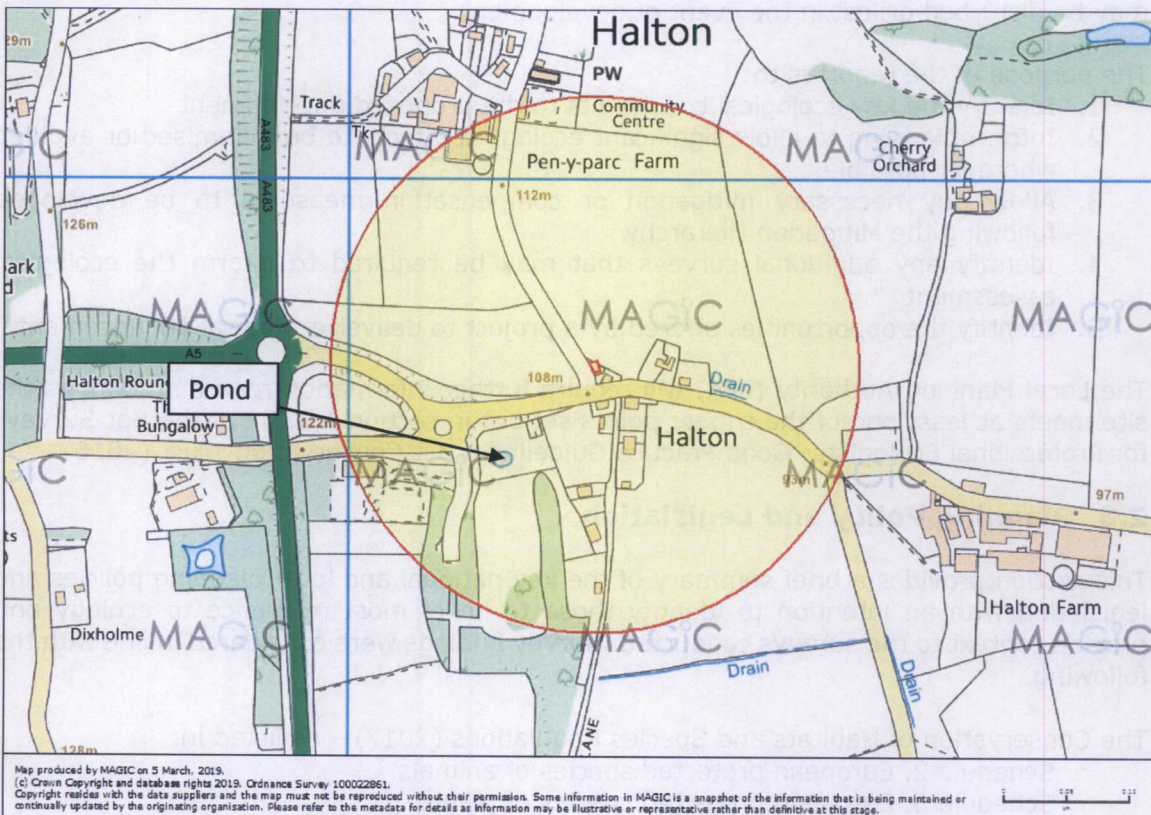


Figure 2.1. An OS map showing the site (centre, highlighted) with a 250m buffer

Scrutiny of the OS map (Fig 2.1) and a walk around the locality showed there is one pond within 250m of the site.

2.4.1 Date and Survey Conditions

The phase 1 ecological appraisal was undertaken at the site on 28th February 2019 by B Jones and C Sheil. The conditions on the survey dates were optimal for the type of survey conducted.

Table 2.1: Survey date and conditions

Date	Time	Temp °C Start- Finish	Sunset / Sunrise	Condition
28/02/19	10:00	n/a	n/a	Overcast, light rain, light breeze

3 Methodology

Broad methodologies for data collection and interpretation were informed by guidance outlined in CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas and known records of protected/notable species. This assists with the evaluation of the ecological value of the site. This was undertaken in March 2019.

This level of desk study is considered adequately proportionate to the development proposals, the low complexity of the site and its surrounding landscape context.

3.2 Field Survey

3.2.1 Habitats

An assessment of habitats was conducted following the "Extended Phase 1 Methodology" (Institute of Environmental Assessment 1995) and broadly the JNCC Handbook for Phase 1 Surveys 2010. Target notes were used where appropriate to identify potential for protected or notable species or habitats, and to give more detailed site descriptions.

The level of survey is aimed to identify field signs of, or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

3.2.2 Hedgerows

The aim of the assessment is to ascertain whether the hedgerow could be classified as important according to the definitions listed in the Hedgerow Regulations 1997.

3.3 Species Survey

Buildings and hedgerows were assessed for potential for bat roosts, foraging and commuting. This was conducted in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, BCT, Collins (ed.) (2016).

Badgers surveys were conducted using guidance from Scottish Natural Heritage commissioned Report No. 096 (2003).

Buildings and hedgerows were assessed for potential for nesting birds.

The assessment of aquatic habitat for great crested newts is based on the Habitat Suitability Index (HSI).

The terrestrial habitats at the application site were surveyed and assessed regarding their suitability and potential value in supporting great crested newts.

3.4 Constraints of the Survey

All areas were accessible for this survey, except the loft space as the hatch was too small to fit through. It was possible to get a limited view of the loft space from the hatch. It was conducted at a suboptimal time of the year for the assessment of flora and fauna but this was not considered a constraint as evidence of bats can often be seen year round. Standard techniques were followed, as outlined in Appendix B.

4 Site Description

4.1 Desk Study

4.1.1 Designated Sites

Figure C.1 in Appendix C shows a map from Natural England indicating that the site is within 1km of a designated area. Afon Dyfrdwy (SSSI) and the River Dee and Bala Lake (SAC) are approximately 800m to the northeast.

4.1.2 Records

The relevant records for this site are swifts within 1.6km and house sparrows within 400m. The potential for the site to support bats and nesting birds was taken into consideration.

Full records from the desk study can be found in Appendix C.

4.2 Field Survey-Phase 1 Description and Observations

The site comprises a workshop and a small area of amenity grassland to the north which is surrounded by a hedgerow and fencing.

A map showing phase 1 habitat codes is not considered necessary for this site due to its lack of complexity and size.

4.2.1 Building

The building is built of brick and wooden panelling and supports a roof of metal sheeting. There are several potential access points for bats into this building beneath barge boards, through gaps where the sheets are separating, or under gaps in the ridge.



Figure 4.1 External view from south



Figure 4.2 External view from north



Figure 4.3 Potential access under roof ridge



Figure 4.4 Barge boards with gaps beneath

No evidence of bats was found in the building and inspection of the loft space revealed a significant quantity of cobwebs hanging from the roof. No scratch marks or staining was seen on any of the ridge beams. Two sparrows were seen leaving the building once

disturbed and although no nests were found the client reported that they have previously nested in the building.

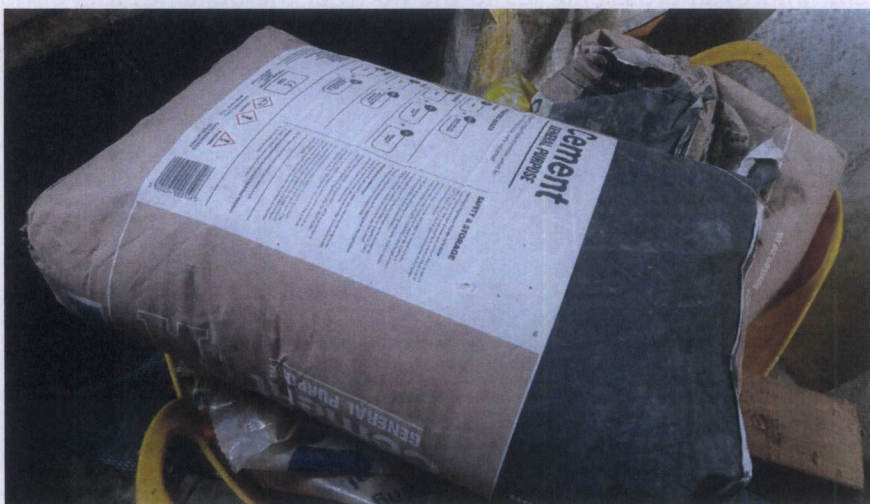


Figure 4.5 Surface showing lack of droppings



Figure 4.6 Cobwebs in loft space

4.2.2 Field and boundaries

A very small area of semi-improved grassland lies to the north of the building, it is of no botanical interest and no evidence of protected species was seen within it. This is surrounded by an intact stockproof hedge, including species such as hazel (*Corylus avellana*) to the northeast and post and wire fence to the west.



Figure 4.7 Area of grassland to north of building

4.2.3 Surrounds

The site is surrounded by open fields to the west and north, a dwelling to the southeast and a church to the south.



Figure 4.8 Open field to north

4.2.4 Open Water

Ponds within 250m have been taken into consideration. One pond is found within 250m and is separated from the site by a drained, curbed road and a ditch. These are considered to be sufficient barriers between the pond and the site. No further survey for great crested newts is considered necessary.

Table 4.1: Ponds within 250m

Pond Number	OS Grid Reference	Distance from Site
1.	SJ30143973	110m

This pond was assessed using the Habitat Suitability Index (HSI) and the results from the HSI calculations and justifications for each value can be seen in the following tables.

Pond 1

Pond 1 is part of a sustainable drainage system and is surrounded by rough grassland. It lies near a drained road but the rough grassland that surrounds it extends down the field. It is fully dominated by vegetation and it has been known to frequently dry out. At the time of the phase 1 survey it had rained for most of the day and the water level could not be seen. It is believed to be part of a SuDS scheme for the McDonalds franchise further to the west.

**Figure 4.9 Pond 1****Table 4.2: Details of HSI score for Pond 1**

Pond 1 Grid reference: SJ30143973		
Geographic Location	1	Zone A
Pond Area	0.4	The pond was approximately 200m ²
Permanence	0.1	Dries annually.
Water Quality	0.33	Low invertebrate diversity, few submerged plants
Shade	1	There was no shading of the area within 1m of the perimeter
Waterfowl	1	No waterfowl were observed on the pond
Fish	1	No fish revealed during survey and not likely to be introduced to the pond
Pond Count	0.65	There were 7 ponds within a 1km radius but only 3 of them weren't blocked by major barriers
Terrestrial Habitat	0.33	The immediate surrounding land is a rough grassland which offers foraging and shelter. Further land includes silage fields, dwellings and roads.
Macrophytes	0.8	Pond entirely covered in macrophytes
HSI Score	0.54 – Below Average	

The ponds identified are considered to offer below average suitability for great crested newts. Further surveys are not considered necessary,

5 Evaluation of Results

5.1 Potential Impacts on Designated Sites and Recorded Species

5.1.1 Designated Areas

The nearest SSSI is approximately 800m away. This is Afon Dyfrdwy and is the River Dee. However, there are no watercourses or drains that lead to the river and a woodland lies between the site and the SSSI. Given the lack of connectivity between them no negative impact is expected from the development.

5.2 Habitats on Site

Table 5.1: Summary of habitats on site

Habitat type	Is the habitat capable of supporting protected species	Impact without consideration
Buildings	Workshop to be demolished. No evidence of bats. Negligible roost potential for bats. History of nesting birds known, no evidence found.	Potential negative impact
Hedgerow	Intact stockproof hedge. Potential for nesting birds. To be retained.	No negative impact
Fence	Post and rail fence of no ecological value. To be removed	No negative impact
Semi-improved grassland	Grassland of no ecological value	No negative impact

Habitats of value on site include the building and the hedgerow. The building offers negligible roost potential for bats but provides suitable nesting habitat for birds when entry is gained. This building is to be demolished and so nesting potential will be lost. The hedgerow also offers potential nesting habitat for birds and terrestrial habitat for GCN but is to be retained.

5.2.1 Hedgerows

All hedgerows are potentially protected by the Hedgerow Regulations 1997. Under these regulations it is against the law to remove or destroy certain hedgerows without permission from the LPA. These Regulations do not apply to any hedgerow within the curtilage of or marking the boundary of a dwelling house.

The hedgerow along the northeast of the site is species poor and backs onto agricultural land. It has the potential to support nesting birds but it is to be retained, so no negative impact on wildlife is expected. The hedge is not protected by the Hedgerow Regulations 1997.

5.3 Ecologically Important Species

Table 5.2: Summary of protected species on site with recommendations

Species	Observations	Impact without consideration	Recommendations
Mammals			
Bats	No suitable roosting habitat on site and no evidence seen	No negative impact	No action required prior to work commencing. New roost box provision
Badgers	No evidence found around site	No negative impact	No action required
Birds			
Nesting birds	Some suitable habitat around site in hedgerow and building.	Low negative impact	Demolition to commence outside nesting period Feb-Aug inclusive. New nest box provision
Herpetofauna			
Great Crested Newts	Pond 110m away. Separated by poor habitat	No negative impact	No action required
Invasive species			
American mink	No evidence found around site	No negative impact	No action required
Himalayan balsam	No evidence found around site	No negative impact	No action required
Japanese knotweed	No evidence found around site	No negative impact	No action required
Rhododendron	No evidence found around site	No negative impact	No action required

5.3.1 Bats

All bat species are protected under the Conservation of Habitats and Species Regulations 2017 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- deliberately capture or kill any wild animal of a European Protected Species.
- deliberately disturb any such animal.
- damage or destroy a breeding site or resting place of such a wild animal.
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

The building offers negligible roost potential for bats and no evidence of bats was found. The demolition of this building is not expected to have any negative impact on bat species and phase 2 surveys for bats are therefore not considered necessary. The hedgerow to the northeast may provide foraging habitat for bats as it may attract insects. There is opportunity to enhance opportunities for bats by erecting bat boxes on or around the site.

5.3.2 Birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), birds, their nests and young are all protected from damage, particularly during the breeding season. The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Take damage or destroy the egg of any wild bird.
- To have in one's possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg.

Work at this site will include the demolition of the building which may have a negative impact on nesting birds. It will therefore be recommended that the demolition will commence out of the bird nesting season (February to August inclusive). It will be recommended that nesting boxes are erected post-construction to provide a minor enhancement.

5.3.3 Amphibian and Reptiles

All species of amphibians receive a measure of protection under legislation.

The Wildlife and Countryside Act 1981 has been amended by the Countryside and Rights of Way Act (CROW) 2000. This applies to England and Wales only. The key relevant fact is:

- Section 9(4) is amended to create an additional offence of reckless damage to, destruction of, or obstruction of access to, any structure or place used for shelter or protection; and reckless disturbance while occupying such a structure or place.

This means that any application for planning permission has to offer mitigation to the planners to alleviate any potential damage (i.e. provide reasonable avoidance).

Great Crested Newts

Great crested newts are protected under the Conservation of Habitats and Species Regulations 2017 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Deliberately take or destroy eggs of any such wild animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of an European Protected Species, or any part of, or anything derived from such a wild animal or plant.

Great crested newts are listed as a priority species on the UK BAP and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine, or to both.

Table 5.3: Rapid Risk Assessment tool results

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.01
Rapid risk assessment result:		GREEN: OFFENCE HIGHLY UNLIKELY

D2. Pre-and mid-development impacts

i. Core terrestrial habitat (0-50m)

The area immediately around the pond will not be directly affected by the development.

ii. Intermediate Terrestrial habitat (50-250m)

The entire site, approximately 0.009ha, falls within this range. The demolition of the building would not lead to the loss of terrestrial habitat but could lead to the injury or killing of individual newts which would be a moderate impact on the population.

Creation of trenches and foundations and other building infrastructure could lead to killing and injury of individual newts and the loss of terrestrial habitat for foraging and hibernacula. Moderate negative impact on population.

iii. Distant Terrestrial Habitat (>250m)

The wider terrestrial habitat around pond 1 will not be directly affected by the development.

D3 Long-term Impacts

The terrestrial habitat consisting of a small area of semi-improved grassland to the north of the building will be lost by the creation of a driveway.

D4 Post-development interference impacts

Post-development there is unlikely to be any interference with the population of newts.

E1 The Mitigation Solution

The residential development would lead to a very small net loss of habitat. This has been taken into consideration and work will follow a strict method statement outlining reasonable precautions for securing the safety of individual newts.

Summary

The development will not need to be conducted under licence from Natural England as the rapid risk assessment was conducted and indicated that an offence is highly unlikely providing individual newts are protected. It is considered possible for the work to be conducted on site by reducing the risks without erecting newt fencing therefore a licence will not be necessary.

Reptiles

Native species of reptiles such as slow worm, are protected by the Wildlife and Countryside Act 1981 (as amended). Part of section 9(1) and all of Section 9(5) apply. This means they are protected against intentional killing and injuring, and against sale and transporting for sale.

No evidence of any reptiles was found anywhere on site so no negative impact is expected from the development. The same method statement provided for newts will also protect any reptiles that might be sheltering under objects on site.

5.3.4 Invasive Species

Himalayan Balsam

Himalayan Balsam is identified as an invasive non-native plant. It is listed under Section 9 schedule 14 of The Wildlife and Countryside Act. It is illegal to plant or otherwise cause Himalayan Balsam to grow in the wild in the UK.

Action will be taken to prevent invasive plants on one's land to spread into the wild and cause a nuisance.

The current fine is up to £5000 or a 2-year imprisonment if contaminated soil or plant material from any waste transferred is spread into the wild. Removal of soil material containing any plant material must be treated as controlled waste.

Himalayan balsam out competes native species, causing shade and suppressing growth leaving the river banks prone to erosion following winter dieback. It is spread by seed dispersal and sections of plant and root travelling downstream. Removing it will benefit the land and wildlife along the river bank.

Control of Himalayan Balsam is most effective before it blooms:

- Hand pull between May and June before flowering (the plants can be composted on site away from the river)
- Strim in June as low down as possible to break all the stems. (Compost on site away from the river)

Although Himalayan balsam is recorded within 1.5km, no evidence of any Himalayan balsam was found on site, so no negative impact is expected from the development.

Japanese Knotweed

The management of Japanese knotweed (*Fallopia japonica*) is regulated by several pieces of legislation

- The Wildlife and Countryside Act (as amended) 1981
- The Environment Protection Act 1990
- The Waste (England & Wales) Regulations 2011
- Third party litigation where damages may be sought for allowing Japanese knotweed to spread onto other properties.

Japanese Knotweed is listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to plant, cause the plant, or allow the plant to grow in the wild.

Whilst there are records of Japanese knotweed within 1.3km of the site, no evidence of any Japanese knotweed was found on or around site.

6 Impacts and Mitigation Measures

To reduce or minimise negative impact on biodiversity, the following recommendations have been made.

6.1 Landscaping

1. It is recommended that the landscaping around the new buildings will include some hedge planting to enhance the area for biodiversity.
2. Plants to use for landscaping will include locally sourced native species. These will be planted in accordance with BS3936 (part 1, 1992, Nursery Stock, Specifications for trees and shrubs). Planting will occur between November and April of the following year depending on timing of development.

Table 6.1: Recommended plants for landscaping

Plant	Latin Name
Blackthorn	<i>Prunus spinosa</i>
Crab apple	<i>Malus sylvestris</i>
Field rose	<i>Rosa arvensis</i>
Field maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Spindle	<i>Euonymus europaeus</i>
Wild cherry	<i>Prunus avium</i>
Wild pear	<i>Pyrus communis</i>
Wild service tree	<i>Sorbus torminalis</i>

6.2 Bats

Work can be conducted immediately once planning permission has been granted.

6.2.1 Enhancements for Bats

1. It is recommended that permanent provision will be made for roosting opportunities for bats with the inclusion of an integral bat box in the new building. This will be erected at a height of 3-4m and in a southerly, westerly or easterly facing direction.



Figure 6.1. Integral bat box

6.2.2 Lighting

1. A lighting scheme will be drawn up in line with ILP and BCT Guidance Note 08/18.
2. All of the newly proposed external lighting will be directed away from any vegetated boundary features to retain dark corridors for commuting bats across the site.
3. There will be no direct illumination of any of the enhancements erected for bats.
4. All domestic external lighting will be below 1 lux, orientated towards the ground and set on a short timer, controlled by PIR (Passive Infra-Red).

6.3 Birds

6.3.1 Reasonable Avoidance Measures

1. Any building demolition will commence out of the bird nesting season, which is February to August inclusive. If this is not possible, a suitably experienced ecologist will conduct a check within the 24 hours prior to work commencement to ensure no nesting birds will be affected.
2. All nesting birds will be left undisturbed until young have fledged. A 4m buffer will be left.

6.3.2 Enhancements for Birds

1. It is recommended that a range of artificial woodcrete boxes are erected around the site to provide an enhancement for passerine birds. A selection of the following nest boxes is recommended.

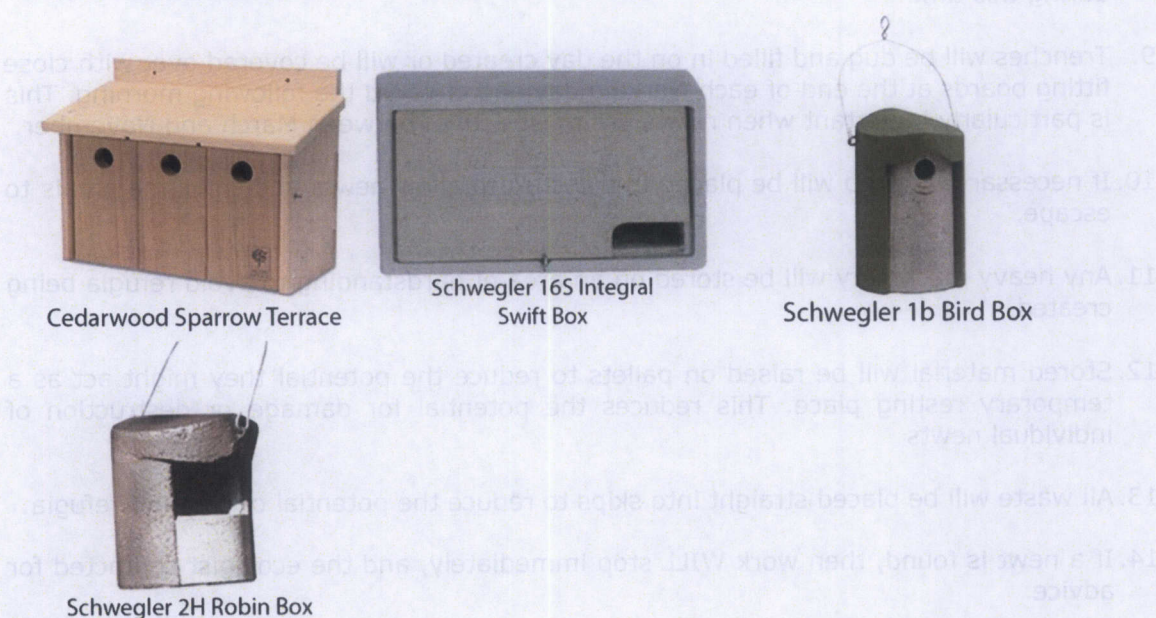


Figure 6.2: Provision for bird boxes

6.4 Newts

6.4.1 Reasonable Avoidance Measures

Pre-construction Phase

1. The site will be kept under cultivation prior to construction. This will reduce the potential for newts to cross the land and reduce the potential for the terrestrial features to improve. All plants will be kept short (<10cm) to ensure there is no shelter for great crested newts on the site.

Site set up

2. Soil and vegetation will be stripped prior to setting up the site compound to ensure the compound contains no vegetation which could potentially attract great crested newts.
3. All cabins and equipment will be located on firm compacted ground, preferably a stone or concrete base.
4. Contractors are advised not to handle newts at any time.

Construction phase

5. The Site Foreman will be responsible for ensuring all contractors are aware of the potential to find newts and that they are familiar with the appearance of newts. If in doubt the ecologist will be contacted.
6. Contractors are advised NOT to handle newts at any time.

7. Any plants around the site will be kept short to stop the development of a long sward suitable for the terrestrial habitat for newts.
8. All work will be conducted during daylight hours as newts are least likely to move during this time.
9. Trenches will be dug and filled in on the day created or will be covered over with close fitting boards at the end of each working day and checked the following morning. This is particularly important when newts are most active, between March and November.
10. If necessary, a ramp will be placed in trenches to allow newts and small mammals to escape.
11. Any heavy machinery will be stored on an area of hardstanding to avoid refugia being created.
12. Stored material will be raised on pallets to reduce the potential they might act as a temporary resting place. This reduces the potential for damage or destruction of individual newts
13. All waste will be placed straight into skips to reduce the potential of creating refugia.
14. If a newt is found, then work WILL stop immediately, and the ecologist contacted for advice.
15. Great crested newts will not be handled or moved without express permission from Natural England as this would constitute an offence.

7 Concluding Remarks

The survey has focused on habitats to be damaged or destroyed as part of this development and the potential for disturbance or damage of protected species.

The survey has focused on bats, nesting birds and great crested newts.

The building to be demolished offers negligible roost potential for bats and no evidence of bats was found inside. The hedgerow to the north offers foraging and commuting for bats and is being retained. Phase 2 surveys for bats are not considered necessary. The site will be enhanced with the erection of an integral bat box installed in the new building.

The building to be demolished also has potential to provide habitat for nesting birds. The demolition of this building is to be done outside of the bird nesting season (February to August inclusive). The hedgerow to the north also has the potential to support nesting birds but this is to be retained. It is recommended that the site be enhanced with the inclusion of artificial bird boxes.

There is one pond within 250m which scored 0.54 – Below Average on the HSI assessment. It is part of a sustainable drainage system. It is separated from the site by a drained road, but there are some features on site which may provide shelter for GCN. The method statement provided will prevent the killing or injury of individual newts and will create a scenario in which there is a negligible chance of a wildlife offense occurring. Phase 2 surveys for newts are not considered necessary.

The method statements provided in this report will be followed, and works will be done at a suitable time of year. This will result in there being no further ecological constraints to the development.

Appendices

A Details of Surveyors

Sheet(s): 1

B Detailed Methodology

Sheet(s): 3

C Desktop Study

Sheet(s): 2

D Bibliography

Sheet(s): 1

A Details of Surveyors

Table A.1: Surveyor experience and licences

Name	Membership of associations/ experience	Licenses
Peta Marshall BSc(hons)MA	Principal Consultant MCIEEM PIEMA Peta has a degree in Applied Biology and has been working in commercial environmental assessment for over 10 years. She has 10+ years' experience surveying for protected species. As a member of the CIEEM she is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. Registered Consultant for Low Impact Class Licence for Bats <u>England:</u> Bats - 2015-12200-CLS-CLS BLICL - RC084 GCN - 2015-18939-CLS-CLS Dormice - 2017-29225-CLS-CLS <u>Wales:</u> Bats - 77554:OTH:CSAB:2017 GCN - 77574:OTH:SA:2017
Logan Maggs BSc(hons)	Lead Consultant Logan has a degree in Conservation and Land Management. He has 10 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS <u>Wales:</u> Bats - 75748:OTH:CSAB:2017 Newts - 79665:OTH:SA:2018
Ben Jones BSc(hons) MSc	Lead Consultant Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 4 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS <u>Wales:</u> Bats - S085098/1 GCN - 78716:OTH:SA:2018
Brian Marshall	Technical Director FIEMA CEnv PEA Consultant with over 35 years in the Environmental Sector	
Chloe Sheil BSc(hons) MSc	Chloe has a master's degree in Zoology with Conservation from Bangor University. She has one years' experience assisting with surveys.	

B Detailed Methodology

Desk Study

Table A: Data sources

Organisation/Resource	Information Assessed
Freely available online species datasets (NBN Atlas)	Protected/UK BAP Species records (2km)
MAGIC website	International statutory designations (1km) • Special Protection areas (SPA) • Special Areas of Conservation (SAC) • RAMSAR sites National statutory designations (1km) • Sites of Special Scientific Interest (SSSI) • National Nature Reserves (NNR) EPS Licenses for protected species (2km)

As the development is a small-scale householder application a full data search is not required, a search was conducted on NBN for commercially available records.

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Appendix C.

Field Survey

The level of survey is aimed to identify field signs of or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

Determination of Ecological Value is based on the general criteria provided by IEEM (IEEM 2006).

Table B.1 Criteria of ecological values

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat on the county BAP or a site that supports a viable population of a county BAP species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.

Hedgerows

The aim of the assessment is to ascertain whether the hedgerow could be classified as important according to the definitions listed in the Hedgerow Regulations 1997.

The hedgerow is measured and gaps within a hedge included in the total length as long as the gaps are 20m or less in length.

The total number of woody species present was recorded in the following manner:

- Where the length of the hedgerow did not exceed 30m the total number of woody species present in the hedgerow was recorded
- Where the hedgerow was between 30m and 100m the number of woody species present in the central 30m was recorded
- Where the length was between 100m and 200m the number of woody species in the central 30m stretches of 2 halves of the hedgerow were counted and the mean of the 2 halves calculated
- Where the length of the hedge was over 200m the hedge was divided into thirds and the central 30m of each section counted and the mean calculated

The hedgerow height, width, integrity, structure and management history was recorded.

Notes were made of the following in accordance to the criteria outlined in Schedule 1 of the Hedgerow Regulations 1997:

- Evidence of certain species of birds, animals or plants listed in Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended)
- Number of woody species on average in a 30m length
- Presence of rare tree species such as Black Poplar, Large Leaved lime, Small leaved Lime, Wild Service tree
- Number of standard trees within each 50m length
- Percentage of gaps in the hedge
- Presence of ditches, banks or walls
- Numbers of connections with other hedgerows, ponds or woodland
- Presence of parallel hedgerow within 15m of the hedge
- Presence of bridleways, footpaths, byways of public paths

Non-woody ground flora species listed in Schedule 2 of the Hedgerow Regulations were recorded.

Species Survey

Bats

Buildings were assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF) The potential suitability of the structures assessed was assigned a rating of low to high in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

An internal assessment of all structures was undertaken by a Natural England licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

Daytime surveys were conducted with the aid of a strong torch and a pair of Pentax Papilio 8.5x21 close focus binoculars. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats.
- Presence of roosting or dead bats in or behind any object.

Methodology used is in accordance with recommendations by BCT, Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

Birds

Evidence of nesting birds, including barn owls using a building involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers

Amphibians and Reptiles

The assessment of aquatic habitat is based on the Habitat Suitability Index (HSI) and is applied according to guidance set out by the Oldham 2000, superseded by ARG in 2010, ARG UK Advice note 5. The HSI is a quantitative method of assessing the potential quality of a body of water in terms of its ability to sustain a population of great crested newts.

The terrestrial habitats at the application site were surveyed and assessed for their suitability and potential value for the support of GCN. The general topography, ground conditions and presence or absence of vegetation were recorded. A refugia search was conducted for amphibians and reptiles by looking under any logs, large stones and other debris.

C Desktop Study

Designated Sites

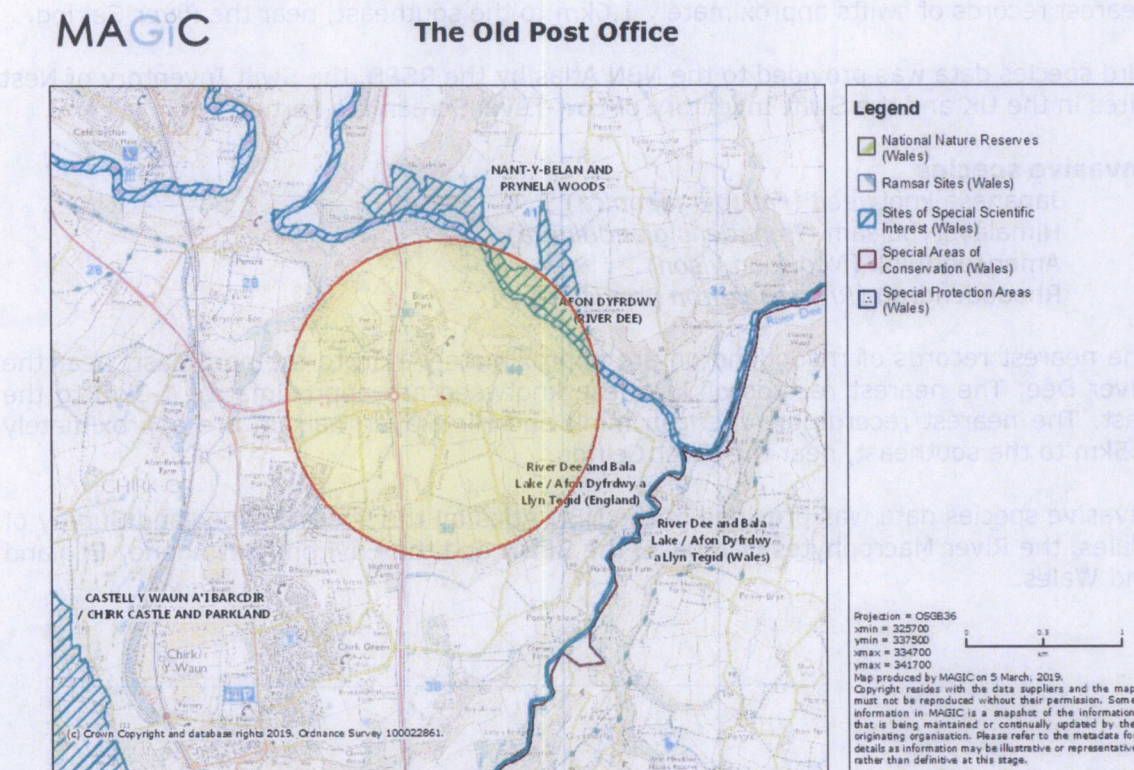


Figure C.1: Designated sites within 1km of the Old Post Office, Halton

The map from Natural England presented in Figure C.1 indicates that the site is within 1km of a designated area.

The nearest SSSI is approximately 800m northeast of the site. This is Afon Dyfrdwy and is a watercourse.

The nearest SAC is also approximately 800m to the northeast. This is the River Dee and Bala Lake.

Records

A desk search was conducted focussing on the area within 2km of the site. Unless stated otherwise, all records were provided to the NBN Atlas under the Creative Commons licence: CC-BY, or the Open Government licence: OGL. The following species have official records in that area:

Mammals:

Otter (*Lutra lutra*)

The nearest records of otter are approximately 1.3km to the east.

Other mammal data was provided to the NBN Atlas by the Wales Otter Survey Database, Natural Resources Wales and the SEDN.

BirdsSwift (*Apus apus*)House Sparrow (*Passer domesticus*)

The nearest records are of house sparrows approximately 400m to the southeast. The nearest records of swifts approximately 1.6km to the southeast, near the River Ceiriog.

Bird species data was provided to the NBN Atlas by the RSPB, the Swift Inventory of Nest Sites in the UK and the Swift Inventory of Low-Level Screaming Parties.

Invasive speciesJapanese knotweed (*Fallopia japonica*)Himalayan balsam (*Impatiens glandulifera*)American mink (*Neovison vison*)Rhododendron (*Rhododendron ponticum*)

The nearest records of rhododendron are approximately 1km to the northeast, near the River Dee. The nearest records of Japanese knotweed are approximately 1.3km to the east. The nearest records of American mink and Himalayan balsam are approximately 1.5km to the southeast, near the River Ceiriog.

Invasive species data was provided to the NBN Atlas by the Phase 2 Woodland Survey of Wales, the River Macrophytes Database, the SEDN and the Environment Agency England and Wales.

D Bibliography

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Natural England – Nature on the Map, Magic Maps. Copyright Natural England, containing Ordnance Survey data, crown copyright and database right 2018:

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