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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 the 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 Enhancement Plan Context

Greenspace Environmental Ltd was commissioned by DPA to provide a conservation plan for the development of Land North of Oak Road, Wrexham Industrial Estate.

This document outlines the avoidance, mitigation and compensation methods with respect to species of concern north of Oak Road. It identifies avoidance measures where possible, and then mitigation and compensation measures where avoidance is not possible. It also outlines avoidance measures post-construction.

The planning application is for the demolition of prefab units and the construction of a new industrial unit on a large area of hardstanding.

This report is in response to condition 8 of the Planning decision notice from Wrexham County Borough Council; application number P/2020/0679.

Condition 8 states:

8. No part of the development shall commence until a Conservation Plan has been submitted to and approved in writing by, the Local Planning Authority. The Conservation Plan should build upon the principles outlined in the ecological report (Jones, B.; 2020; Ecological Appraisal: Land North of Oak Road, Wrexham Industrial Estate, Wrexham, LL13 9RG; Greenspace Environmental Ltd.; Unpublished) and should include, but not necessarily be limited to:

- *details of timing, phasing and duration of construction activities and conservation measures;*
- *timetable for implementation and demonstrating that works are aligned with the proposed phasing of the development;*
- *Ecological Compliance Audit, including defined key performance indicators;*
- *persons responsible for implementing the works;*
- *post-construction monitoring; and*
- *biosecurity measures.*

The development shall be carried out in strict accordance details as may be approved, and all biosecurity, mitigation and compensation measures be fully implemented prior to first use of the development.



2 Introduction

This report has been compiled by Ben Jones BSc (hons) MSc who has 6 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

This document comprises a detailed conservation plan covering the development of land north of Oak Road, Wrexham Industrial Estate. It identifies the management requirements to achieve the design goals in a pragmatic manner.

It should be recognised that the landscape is a living and changing environment and therefore the management plan should be seen as a flexible document which will potentially need to be updated during the life of the development.

This document aims to provide the council with confidence that the risk of capture, injuring or killing of protected species will be minimised both during- and post-construction.

Purpose of the Report

The purpose of the management plan is to:

1. Detail appropriate avoidance and mitigation measures
2. To provide a management plan of on-site compensation areas as well as their wardening and surveillance in perpetuity
3. Outlining responsibilities for individual parties involves
4. To provide a biosecurity risk assessment as well as control and management measures for invasive species
5. To provide evidence of compliance with this document by the completion of an ecological compliance audit



The proposed plans are to construct two industrial units after demolishing the pre-fab office buildings atop hardstanding.

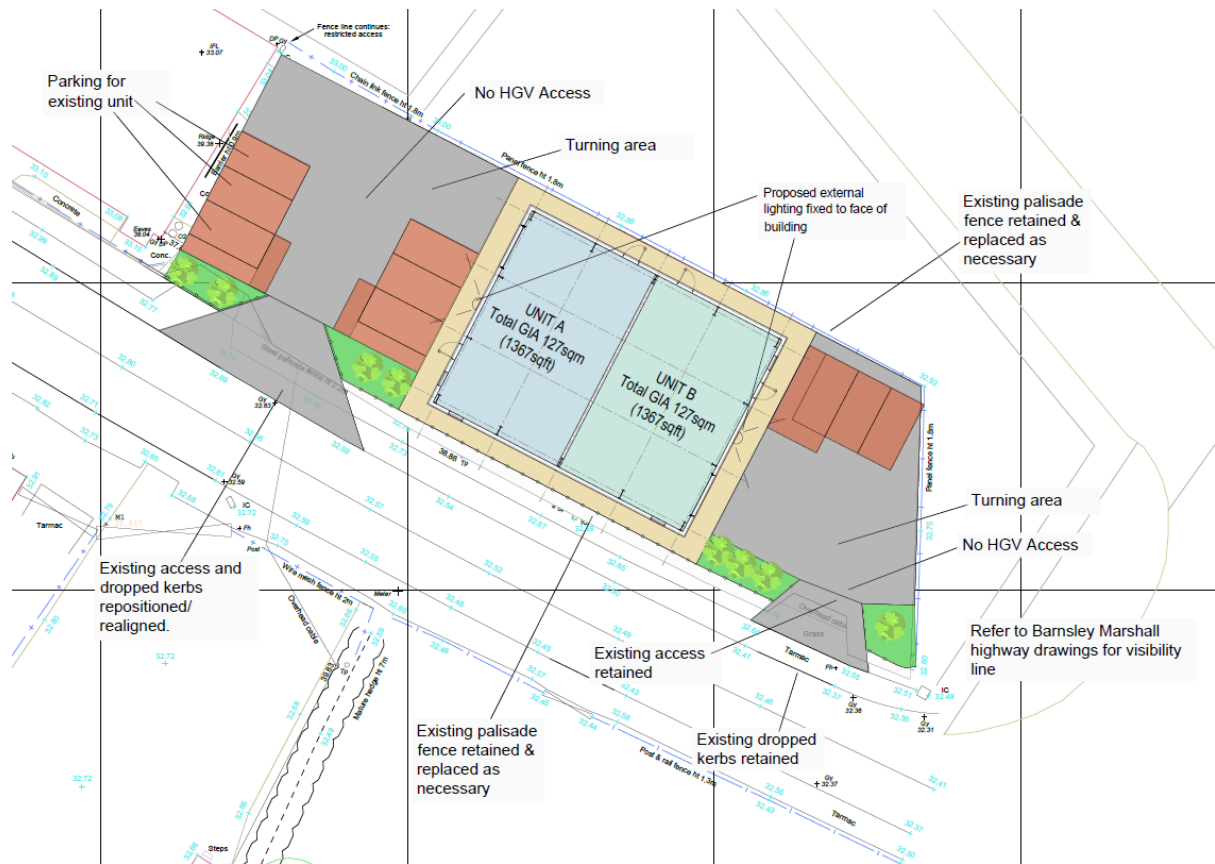


Figure 2.1. Proposed plans



3 Baseline Ecological Conditions

The site comprises an area of hardstanding supporting prefabricated office buildings and storage containers. The site is bound by palisade fencing.



Figure 3.1. Hardstanding north of buildings

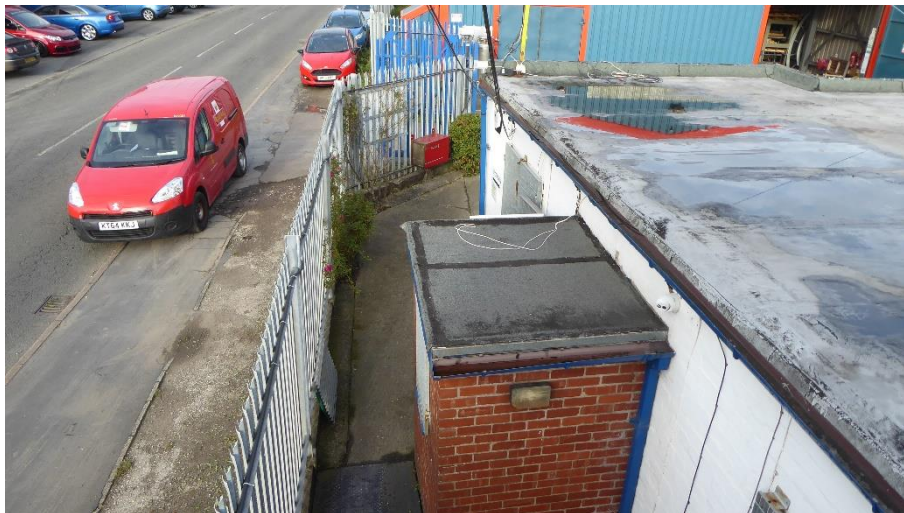


Figure 3.2. Pre-fab building and palisade fence

The phase 1 survey was conducted on 16th October 2020 in support of the planning application and found evidence of nesting swallows in some of the storage containers, but no other protected species on site. No habitats of importance listed in Section 7 of the Environment (Wales) Act 2016 were identified on site.

An eDNA assessment of nearby ponds returned positive results, and information gained from Wrexham Council is that a medium sized population of great crested newts has previously been identified in the pond 130m to the southwest. It is the proximity of this known population that necessitates the implementation of the mitigation and compensation outlined in this document.



4 Conservation Plan

4.1 Timing, Phasing and Duration of Construction Activities

The development will begin as soon as all conditions are discharged and work is permitted.

4.1.1 Nesting Birds

The buildings on site, some of which that have been shown to support nesting swallows, will be removed. These will be moved/demolished outside of the bird nesting season, which is March 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.

It is recommended that a range of woodcrete boxes are erected around the site to provide an enhancement for passerine birds, and a selection of the following would be appropriate.

- Sparrow Terraces should be erected under the eaves of a building at a minimum height of 3m, in a westerly, northerly or easterly aspect.
- Swallow cups should be installed on the exterior of the building at eaves height, ideally beneath an overhang to shelter the cup.



Figure 4.1. Bird boxes



4.1.2 Great Crested Newts

Both ponds containing great crested newts are over 100m away, and the land to be lost is of negligible value for amphibians in their terrestrial phase. Work will not, therefore, require a licence from Natural Resources Wales. A precautionary method statement will be followed, provided in the original phase 1 report, and below.

Pre-Construction

1. The site will be managed and maintained to the same level as currently, allowing no plants to grow on site. No rubble or material piles will be permitted on site unless raised on a pallet, as is currently the practise on site. This will prevent the potential shelter value of site from increasing.

Site Setup

2. A consultant will be retained as the Ecological Clerk of Works (ECoW) to provide expert advice throughout the development.
3. The ECoW will provide contractors with a toolbox talk prior to work commencing. This will include information about the legal status of newts and responsibilities of the construction company to ensure no offence is committed. A document to assist with the identification of newts will be left on site.
4. The site will be checked thoroughly by the ECoW prior to construction commencing. This will confirm there are no newts present and that there are no potential places of shelter.
5. 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
6. All cabins and equipment will be located on firm compacted ground, preferably a stone or concrete base.
7. Contractors are advised not to handle newts at any time.

Construction Phase

8. 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 ECoW will be contacted.
9. Contractors are advised to avoid handling newts at any time.
10. All groundwork will be conducted during daylight hours as newts are least likely to move during this time.
11. 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 then checked the following morning. This is particularly important when newts are most active, between March and November.
12. If necessary, a ramp will be placed in trenches to allow newts and small mammals to escape.



13. Any heavy machinery will be stored on an area of hardstanding to avoid refugia being created.
14. 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.
15. All waste will be placed straight into skips to reduce the potential of creating refugia.
16. If a newt is found, then work will stop immediately and the ECoW contacted for advice.
17. Great crested newts will not be handled or moved without express permission from Natural Resources Wales as this would constitute an offence.
18. It is recommended that regular site visits are carried out by the ECoW to ensure compliance with the legislation and the Method Statement. A record of these visits will be made as part of the audit trail.



4.2 Control of Works

To ensure that the works are undertaken in accordance with the CP, a series of control measures will be utilised. The measures include:

1. Appointment of an ecological management team
2. Identification of ecologically sensitive areas and tasks using a traffic light risk zone

The application of the 'traffic light' system allows classification of the level of risk and ecological sensitivity of the ecological systems. There are three levels of risk; red, amber and green, with red being the highest risk areas or tasks. Works within all levels of risk will be controlled to some degree.

4.2.1 Legislation

Based on current understanding of site no licences to undertake works are required from Natural Resources Wales.

4.2.2 Ecological Management Team

The ecological management team will consist of the following posts:

- Ecological Clerk of Works (ECoW)
- Site Manager

The ecological management team will ensure that all site personnel are appropriately briefed on the ecological issues within the site. This will be undertaken through inclusion of ecological briefings within the toolbox talks given to all staff as part of the site induction process. The roles are detailed as follows:

Ecological Clerk of Works

- Develop method statements and site protocols.
- Provide guidance for the site team including legal and statutory requirements affecting works.
- Undertake toolbox talks and advise the site manager.
- Ensure site management is aware of any changes.
- Monitor and report on the protective measures and habitats.
- Carry out audits to check for non-compliance with environmental legislation, consents, and objectives.
- Complete ECoW visit record sheet.

Site Manager

- Ensure the CP is developed and held on site and that it is implemented throughout all phases of the project.
- Ensure the site team and subcontractors comply with site protocols.
- Ensure the site and all stored materials and chemicals are safe and secure.
- Ensure the site is kept in a tidy and orderly fashion.
- Ensure all emergency protocols are up to date.
- Ensure all those that work on site have a site induction including briefing on environmental issues pertinent to the project and relevant toolbox talks.
- Ensure activities are carried out in accordance with the requirements of any associated method statements.



4.2.3 Ecological Control of Works

Status	Task / Area	Control
Red	Clearance of buildings on site	- ECoW to provide method statements prior to work. - ECoW to give toolbox talk prior to works. - Site Manager to ensure work is done either at an appropriate time of year, or after being given the all-clear to do so after a site check from the ECoW
Amber	Implementation of ecological enhancement features.	ECoW to advise upon, or supply, suitable enhancement boxes for bats and birds.
Green	- Groundworks to amend site access - Works outside of ecologically sensitive areas	- Works to be carried out to ecological best practice. - ECoW to approve method statements prior to work commencing.



4.3 Biosecurity Risk Assessment

No invasive species were found on or around site during the phase 1 survey.

Japanese Knotweed and Himalayan balsam have records in the area, however. It is therefore possible that these invasive plants may spread to site and become established. It is important that all site personnel are aware of this and how to identify them.

4.3.1 Japanese Knotweed

Japanese knotweed is a problem plant because it causes damage to roads, buildings, concrete, drains and damages the environment by destroying biodiversity. It is important that it is removed as soon as possible once identified as its roots spread rapidly.

Identification

The key features of Japanese knotweed are:

- Dull green leaves with a flat base near the stem
- Stems in a "zig-zag" shape
- Hollow stems growing straight up from the ground
- Red speckles along the green stems



Figure 4.2. Identifiable features of Japanese knotweed



Removal and Control

Japanese knotweed spreads so rapidly that to control its spread it must be eradicated. Possible eradication options include:

1. Herbicide treatment which can take from 1-3 years.
2. Excavation and treatment of soil with root barriers.
3. Excavation and removal to landfill as controlled waste.
 - This would be in accordance with The Waste (England and Wales) Regulations 2011.

Removal to landfill can be very costly and current best practice comprises a combination of chemical treatment, burial on site and the use of root barriers. A specialist can be employed.

4.3.2 Himalayan Balsam

Himalayan balsam is particularly frequent along the banks of watercourses, where it often forms continuous stands. It can also establish in damp woodland, flushes and mires. Individual plants can reach 2m high and due to its rapid growth, it shades out most of our native species.

Identification

The plants have:

- Translucent fleshy stems
- Pink-purple slipper-shaped flowers
- Large oval pointed leaves with obvious teeth around their edges.



Figure 4.3. Himalayan Balsam ID

Removal and Control

Himalayan balsam management involves removal by hand. The stems are pulled in May-June before the seed pods have developed. The stems are notoriously easy to pull as they have very short root systems.



The pulled stems are then composted away from any features that might spread parts of the plant.

The pulling and composting are done every year for several years where necessary to avoid the recurrence of species from seeds currently dormant in the soil.

4.3.3 Reasonable Avoidance Measures

If these species are identified on site, a zone of exclusion will be made around the plants and no contractors will go near the area to minimise the risk of spreading the plant.

The site is in regular use and is entirely hardstanding with no bare earth or vegetated areas that might support the plants, so the likelihood of plants developing is unlikely. If any person goes near where any invasive plant is known to be present, they must brush off their footwear before leaving the development site to ensure that no parts of any plant, including rhizomes, are carried to other areas as this would constitute an offence.

A disinfectant walkover mat will be installed at site entrances to ensure no biological material or bacteria is brought onto site on boots. Boots will be brushed clean before disinfection.

4.4 Post-Construction Monitoring

No ecological monitoring is required for the enhancements erected, but the site manager should maintain any features erected to enhance local biodiversity for at least five years. Should any boxes erected around site be seen to become damaged they will be repaired or replaced at a suitable time of year to ensure no disturbance to any wildlife still utilising the box.



5 Ecological Compliance Audit Form

Site	Land North of Oak Road, Wrexham Industrial Estate
Personnel	

Date and Time	Actions Completed	Signature