Ecology Assessment and Biodiversity Net Gain Recommendations

Proposed Storage Building at Lloyd Watson Haulage, Ellesmere Road, Bronington, Whitchurch, SY13 3HD

Kathryn Ward BSc (Hons) Ecology & Conservation.
19 York Road
Colwyn Bay
North Wales
LL29 7EG

kathrynbward@tiscali.co.uk
07425 711381

Summary

Planning permission is being sought for the construction of a 912 sq. m. new storage building at the Lloyd Watson Haulage premises, situated on the A495 Ellesmere Road approximately 900m / 0.5 miles from the village of Bronington.

The new building would be constructed on an area of concrete hardstanding currently used for the parking of HGV's associated with the haulage yard depot. No evidence of protected species or features of ecological significance were found on the development site or within the wider haulage yard. However, there are trees, hedgerows and a drainage ditch adjacent to the site, largely on neighbouring land, which comprise the main features of ecological interest with close proximity to the site. There will be no loss or damage to any of these features arising from this development. There is potential for on-site biodiversity enhancements through appropriate new planting to strengthen and reinforce the site boundary as a habitat for foraging and route for wildlife.

A key issue will be to ensure that construction activity does not disturb or disrupt the natural environment – particularly ensuring air quality and minimal disturbance to nearby vegetation, for example by controlling noise, dust and avoiding contamination. A Construction Environmental Management Plan is recommended to be included as a supporting document.

The proposed development of the site including the retention and enhancement of boundary hedges, particularly along the north western boundary adjacent to the ditch, has the potential for significant biodiversity gains, in the local context.

Precautionary mitigation measures as detailed in this report will be required prior to and during site clearance / demolition.

The survey was carried out on the 4th January by Kathryn Ward BSc (Hons) Ecology & Conservation.

Introduction

Kathryn Ward Ecologist was instructed by Lloyd Watson Haulage Ltd to undertake an ecological assessment of land at their premises which comprises a HGV depot and haulage yard totalling 0.43 hectares. The survey was commissioned in connection with a planning application for the construction of a c900 sq. m. storage building. The assessment was based upon a desk study, a Phase 1 Habitat Survey, and surveys for otter, water vole, barn owl, badgers and bats. The purpose of the assessment was to identify potential for the application site to contain important habitats or species, and consider if development would have a significant impact upon local biodiversity.

Part 1: Desk Study

Data Search

A desk study was carried out to identify species or habitats that are considered important in a local context and to identify any species recorded locally that may be associated with the application site. Data Map Wales, the Welsh Government's environmental information service, was searched for records of protected, priority and locally important species and habitats, international, national and local biodiversity sites within a 1km radius of the application site.

Barn owls could potentially use the site for hunting, although no evidence of their presence was found during survey. The existing buildings on the site are steel portal frame industrial type buildings which are intensively used and have negligible bat roost potential. The drainage ditch which demarcates the western boundary of the site has negligible potential for commuting otters or water vole as it is detached from a wider ditch network and serves largely to drain the existing hardstanding on site. Badgers are unlikely to be present due to the absence of suitable habitat on the site and no evidence of badger activity was found.

Hedgerows are located along the north and western boundaries of the site and most probably provide foraging and commuting routes for birds, small mammals and amphibians.

Protected species recorded within the 1km search area and relevant to the application site include a pipistrelle bat roost at 309m and a badger sett at approximately 900m.

Statutory Protected Sites

There are no statutory protected sites located within 1km of the development site. The nearest designated sites are Fenn's, Whixall and Bettisfield Mosses, which is a designated National Nature Reserve and Site of Special Scientific Interest (SSSI) located 2km to the south. Llyn Bedydd SSSI is located 2.65km west of the site and Hanmer Mere SSSI is located 4.5km to the west. These designated sites are not functionally linked to the haulage site, and there will be no adverse effect upon the integrity of these sites arising from this development.

Part 2: Phase 1 Habitat Study

A Phase 1 habitat plan of the application site can be seen in Figure 1. Target notes are detailed in Appendix 1

Buildings and Hardstanding

The application site, extends to approximately 0.43 hectares and comprises concrete hardstanding for the parking, loading and operation of HGV's. The site includes two large industrial steel-framed metal clad sheds.

Trees

Semi-mature and mature trees are located along the western and northern boundary of the site with hawthorne, sycamore and oak along the ditch and two oak trees located to the north west of the site, but outside the applicant's land ownership boundary. The applicant has commissioned an BS5837 Arboricultural Impact Assessment of these trees.

Hedgerows

Hedgerows are present along the northern and western boundaries of the site. These hedges are species-poor, consisting of almost exclusively hawthorne, blackthorne and sycamore. There is a large leylandii hedge which marks the eastern site of the haulage yard and separates this from the applicant's home which neighbours the site to the east.

Ditch

A ditch with shallow standing water is located along the western site boundary. This is characterised by a relatively deep channel with steep banks and, apart from the eastern end, is shaded by overhanging oak and sycamore trees. This ditch appears to be regularly cleaned and maintained and there is little vegetation within the ditch other than stinging nettle, brambles and perennial weeds. The ditch is a detached and is an isolated feature that does not connect to a wider network of ditches. It was most probably constructed to drain the adjacent agricultural land and it is understood the falls of the existing haulage yard hardstanding direct surface water runoff into this ditch.

Fauna

Otter & water vole

No evidence of otter or water vole was found within the ditch and there are no records of otters nearby. The boundary ditches were surveyed for evidence of otter activity such as holts (cavities in the river bank, often between tree roots or rock clefts, used as nests or lairs), spraint (otter faeces, often found in elevated positions on large stones, fallen trees and bridge / culvert revetments), paw-prints in mud or silt and slides and haul-out places. The ditches were also surveyed for evidence of water vole activity such as faeces, latrines, feeding stations (remnants of chewed vegetation), burrows, lawns (closely grazed vegetation), nests, footprints and runways.

Badger

No evidence of badgers or badger activity was recorded within the application site or within land on the immediate boundary of the site. There is a metal palisade security fence that forms an effective barrier to movement to and from the site and the open arable land to the north.

Birds

The site boundary is likely to support common songbird species with trees and shrubs providing potential nesting habitat. The ditches do not provide potential nesting habitat for reed warbler and sedge warbler or kingfishers due to the lack of vegetation.

Herpetiles

The application site boundary provides a potential habitat for slow worm, but there lacks suitable open areas within the site for basking and all dense cover and refuge areas would be outside the site boundary. The wet ditch outside the site boundary provide potential habitat for grass snake although none were observed during the site survey. The wet ditch provides potential breeding habitat for amphibian species such as common frog, common toad and smooth newt. There are no records of great crested newt within the search area.

Bats

The survey consisted of an inspection and assessment of buildings and trees on the site for roosting potential. Buildings on the site were examined both internally and on the exterior for evidence of bat use such as droppings, feeding remains e.g. moth wings, live or dead bats, stains on timbers from the natural oils in bats' fur and claw marks on timbers made by bats regularly roosting in the same location. The buildings were also examined for evidence of breeding birds such as nests, droppings and splashings, feeding remains and pellets. Mature trees along the boundary of the application site were inspected from ground level with the aid of close-focusing binoculars for features which could potentially support roosting bats.

The buildings are steel portal frames with metal clad roof and exterior and are assessed as being largely unsuitable for roosting bats and no evidence of bats was found during the inspection. The buildings were intensively used by the haulage yard operation for the loading and unloading of pallets and goods. None of the mature trees on the site support features that could be used by roosting bats. Ivy is present on two mature oak trees adjacent to the boundary of the site but is not particularly dense and does not provide sufficient cover for roosting bats.

Evaluation and Mitigation

No evidence of protected species was found on the site during the surveys. The buildings and trees generally have limited potential for roosting bats. If any clearance of vegetation is required, this should be undertaken during October – February (inclusive) to avoid impacts on nesting birds. Alternatively, if undertaken outside this period the buildings and vegetation should first be examined by an experienced ecologist for any active birds' nests. If any active nests are found demolition / clearance works would be delayed until nesting activity has ceased and has been confirmed by the ecologist.

Precautionary mitigation measures will also be required to avoid any potential impacts on slow worms and amphibians during site clearance. Natural and artificial debris on the site such as spoil mounds, matting, pallets etc. should be carefully cleared by hand where possible, under the supervision of an experienced ecologist. Any sections of the boundary ditch impacted on by the proposed development should be re-examined for any new evidence of protected species prior to site works commencing.

Lighting associated with the development should be sensitively designed and sited to avoid direct illumination, or by light spillage, of boundary features including ditches and hedgerows.

The applicant, their advisers and contractors should be made aware that if any protected species are found, then as a legal requirement, work must cease and advice must be sought from a licensed specialist.



Ditch located adjacent to western site boundary

Biodiversity Net Gain

Measures should be considered to result in a significant net gain in biodiversity. Surplus land located between the new building and the western and northern site boundaries has the potential for a new landscape planting scheme to promote biodiversity and strengthen the existing wildlife foraging and movement corridors.

Strengthening of the existing hedgerow planting along the western and northern boundaries is a 'quick win' and will result in a greater area of edges and habitats for wildlife. This will improve the resilience of the habitat within this area and provide protection from fragmentation and further damage. The wildlife connectivity to the open field area to the north and west of the site will be maintained, which will reduce habitat fragmentation and isolation of animal species.

We recommend that the following biodiversity enhancements form part of the planning application, together with a Construction Environmental Management Plan to mitigate short term negative impact of construction works on ecological receptors identified in Appendix 1.

- Planting up gaps in the boundary hedgerows using native species including hawthorne, holly, mountain ash and hornbeam, which will strengthen the habitat and attract birds and insect pollinators;

- No artificial lighting installed along the northern and western site boundary to maintain this area as a 'dark zone' to encourage wildlife;

- All other external lighting to be shielded and comply with Bat Conservation Trust guidelines;

- Incorporation of universal small bird / swift nesting boxes;

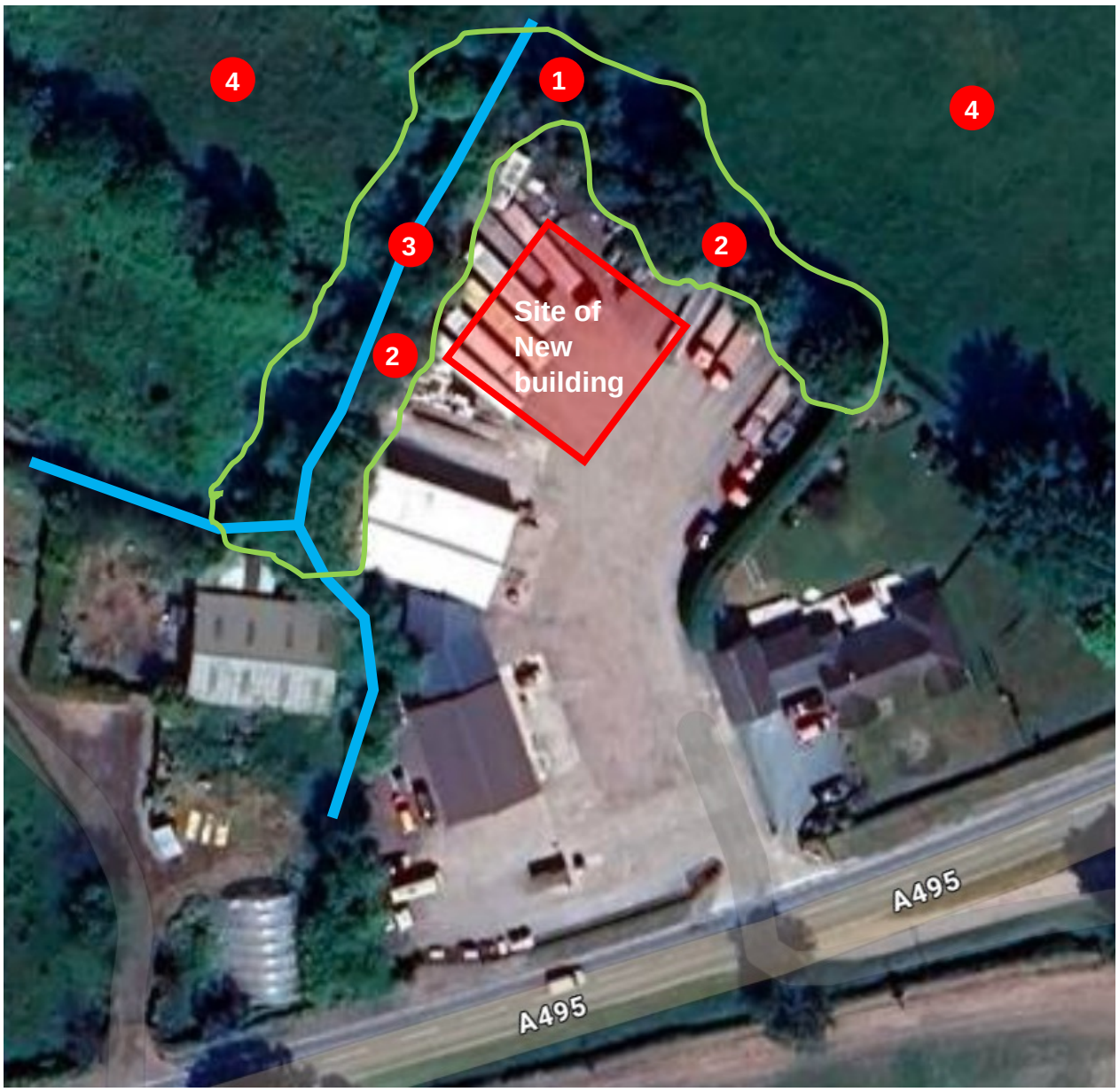
- Creation of dead wood and stone piles along the along north and west site boundaries;

- Creation of a new 4m deep planted shrubbery area on the applicant's land along the northern and western site boundaries;

- Detailed Construction Environmental Management Plan (CEMP) setting out details including; what work will be done, details of the materials, machinery and equipment to be used; noise and visual disturbance control measures; when (an indication of the time of year and how long work will take), how the work will be undertaken, if there will be any emissions (such as to water, air, disposal to land) and any transport requirements to the site.

- The working area, together with any storage areas, will be kept clear of debris, and any stored materials will be kept off the ground on pallets so as to prevent amphibians from seeking shelter or protection within them.

Appendix 1 – Phase 1 Habitat Plan



Key features of ecological significance:

1. Mature trees on north-west corner of site boundary
2. Hedgerows along western and northern site boundary
3. Ditch along western site boundary
4. Arable land outside the site boundary