

Client Name: Axis PED
Site Name: Kronospan Warehouse
Project Ref: AxisL-043-1386
Date: 14th October 2021

Biodiversity Note

Introduction

This Biodiversity Note is provided relation to the proposed development and associated proposals for protecting and enhancing biodiversity, in accordance with Planning Policy Wales (Section 6 Duty relating to Biodiversity and Resilience of Ecosystems).

Protected Habitats and Species

An ecological appraisal undertaken in relation to the proposed development (Avian Ecology 2021¹) was submitted as part of the planning application. This confirmed that the proposed development would have no adverse effects on designated sites, or protected and notable species or habitats, being largely located within an area bare ground/hardstanding currently in operational use and devoid of vegetation.

A small section of bund which would be removed for construction supports small extents of scrub, ephemeral and ruderal vegetation (common and widespread habitats). The main body of the bund which has previously been planted with trees to provide screening, is retained and would be protected during works. Some trees will be removed to facilitate the development, however these are largely semi-mature or young specimens. As set out in the PEA, The retained trees and scrub/hedgerow vegetation outside the development footprint will be protected in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction*. Standard measures to ensure runoff control and pollution prevention will be implemented during construction and operation of the proposed road. Specifically, surface water runoff and drainage management will be designed and implemented to safeguard nearby habitats

Biodiversity Net Gain

A Biodiversity Impact Assessment utilising the Natural England Metric (version 3.0 July 2021) has been undertaken. This comprises a calculation of the potential change in biodiversity interests associated with the operational facility. It is recognised that this methodology is not currently part of the planning system in Wales, although the delivery of biodiversity net gain is a requirement under the Environment (Wales) Act 2016 and Planning Policy Wales. The calculation has therefore been undertaken to provide a quantified context to the habitat loss associated with the development. The Metric Calculation Excel spreadsheet is also provided to accompany this Note.

The Metric calculates the change in biodiversity resulting from a project or development by subtracting the number of pre-intervention or 'baseline' biodiversity (habitat) units (i.e. those originally existing on-site and off-site) from the number of post-intervention units (i.e. those projected to be provided after the development or change in land management). Information on current baseline conditions has been gathered from survey and aerial imagery and assigned

¹ *Kronospan Warehouse Preliminary Ecological Appraisal*. Avian Ecology May 2021.

condition value in line with Metric guidance. Habitat survey was undertaken by experienced ecologists competent in habitat identification and description and followed the UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010) as described in the PEA. The Technical Data Tab of the Metric was used to translate the Phase 1 habitat types into the UK Habitat Classification categories. Proposals for future habitat retention, enhancement and creation are set out in this Note.

The condition and strategic significance of the existing habitats was assessed, with discretion used where the habitat potentially provided additional ecological functions not included within the conditions. Where the habitat does not fall under any local policies and has limited functional value the strategic significance has been categorised as low. Proposed habitat types, including for creation, enhancement and restoration, were directly assigned a UK Habitat Classification (UKHab) category. No hedgerows are affected by the proposal and hence are not included in the calculation.

The Metric provides a quantitative biodiversity net-gain assessment but has limitations, in that it is based on an assessment of area of land take and habitat impacts alone. The values produced do not take into account additional biodiversity enhancements which are proposed, such as the provision of bird and bat boxes and insect hotels which deliver biodiversity benefit and contribute to the resilience of ecosystems in line with Planning Policy Wales by providing new opportunities for refuge, safe overwintering, and breeding.

Biodiversity provision

Due to the constraints of the site and proximity of operational activities, on-site opportunities for biodiversity provision are severely limited. Planting close to the warehouse and immediately adjacent existing structures was not considered likely to allow plants to thrive or make any meaningful contribution to local biodiversity. An alternative approach has therefore been adopted, using land within the ownership and control of the Applicant, where sustainable long term benefit can be delivered. The biodiversity provision includes both new planting and the provision of other features designed to benefit wildlife and biodiversity, but which cannot be counted within the current Metric, as follows:

1. New planting on nearby land under Kronospan ownership/control. This will take the form of mixed native species shrubs, including hawthorn, guelder rose, holly, hazel, dogrose and dogwood. Trees will be included in the mix to diversify and compensate for the small number of trees removed for construction, with the shrub species also left to grow naturally to their typical height and spread. This will include native species suitable to the location such as rowan, birch, and crab apple, which provide additional berries and pollen /nectar sources for wildlife. The planting locations currently proposed include areas of mown amenity grassland on the east (road) side of the boundary bund, where additional planting would both add to visual screening and complement the existing wooded corridor along the bund by adding species diversity and supporting its corridor function. Additional planting areas, located to strengthen habitat connectivity, will be located within grassland parallel to the railway line to the north of the main Kronospan site as shown below in **Figure 1**.

Planted areas will be subject to management over at least 5 years to ensure the successful establishment and healthy development and growth of the shrubs. Thereafter the shrubs and trees will be left to naturally develop as scrub and tree habitat and would be subject thereafter to remedial management or replacement in the case of damage or disease.

2. Provision of bird and bat boxes and insect hotels. This will include the erection of eight bat roost boxes and eight bird boxes of suitable design, on trees along the roadside bund, or on other

mature trees within the Kronospan land ownership. Examples of suitable types of box are provided at **Appendix 1**. Two insect hotels will also be placed within the bund woodland to provide refuge and overwintering opportunities for invertebrates. Cut material from the scrub clearance will also be used to create habitat piles within the woodland as refuge for invertebrates and small mammals.

Figure 1: Indicative planting areas



Table 1 below provides the Headline Results from the calculation spreadsheet. The full Excel spreadsheet is provided separately. This summarises the pre-development habitat baseline compared with the proposed post-development and proposed off-site planting. The proposed area of off-site planting will be approximately 0.28ha in area, which delivers approximately 11% net biodiversity gain when assessed as part of the Metric.

Kronospan Warehouse

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Headline Results

On-site baseline	Habitat units	1.61
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	0.00%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	Habitat units	0.56
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	2.35
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.18
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	11.23%
	Hedgerow units	0.00%
	River units	0.00%
Trading rules Satisfied?		No - Check Trading Summary

NOTE: Trading summary not relevant at this location with tree provision included within scrub planting off-site

APPENDIX 1: Example Bat and Bird Box designs

Examples of Suitable Bat Roost Boxes (see also NHBS box supplier NHBS.com)

Large Twin Crevise		Primarily for use by roosting bats but may also be used by small birds as a safe roost site. Two curved internal voids narrowing down to tight crevices at the top. Suitable for a range of bat species, mating roosts and spring and autumn roosts where the thermal mass is a benefit. Top loop for more comfortable carrying and quick initial attachment to the tree and two 'through the box' nail holes for secure attachment of this heavy box.
Kent Type Twin Crevise		Two parallel crevices for roosting bats with internal connection to move between the two. Light internal finish for helping to spot bats, droppings and rub marks. Top loop for quick and easy initial attachment to the tree, plus two 'through the box' nail points for maximum security.
Bat chamber		Primarily for use by roosting bats including as an autumn mating roost, particularly for pipistrelle species. Also likely be used by small birds as a safe roost site. 16mm hole for endoscope inspection in the base facilitating inspection, potentially avoiding working at height with the right equipment. Light internal finish facilitates detection of droppings or rub marks. Top loop makes initial attachment to the tree easier – with two further attachment points for 6" nails for security.
Siting	The bat boxes can be sited in trees and are best positioned at a height of between 3 to 6 metres. Bat boxes should ideally be sited in open sunny positions facing different directions to provide a variety of micro-habitats.	

Timing	Bat boxes can be installed at any time of year following the cessation of construction works.
Other Notes	Note that once bats have inhabited a roost site they may only be checked by licensed bat workers.
References	https://www.barkboxes.co.uk/product/large-twin-crevice/ https://www.barkboxes.co.uk/product/kent-type-twin-crevice/ https://www.barkboxes.co.uk/product/bat-chamber/

Suitable Bird Box Types

Great tit / tree sparrow nest box	 Nest box and roost site with 28mm entrance suitable for great tit <i>Parus major</i> or tree sparrow <i>Passer montanus</i>. Likely to be used by roosting birds, one of these was adopted by a blue tit whilst still in production, and with potential for use by roosting bats.
Starling box	 A large box for nesting starling <i>Sturnus vulgaris</i>. This meets the British Trust for Ornithology (BTO) recommendations. 'Branch stub' entrance provides shelter and protection from predators. Top loop provides more comfortable carrying and a quick initial attachment point to the tree; whilst 'through the box' nail points provide security for this large box.
Branch stub	 Replicating a rotting branch stub with void. More likely to be used by nesting and roosting birds than roosting bats.

Open fronted nest box		For birds such as robin <i>Erithacus rubecula</i> and pied wagtail <i>Motacilla alba yarrellii</i> . Open fronted but with a generous canopy to screen from aerial predators. Place in good cover not in the open.
Siting	The nest boxes should be sited in trees and are best positioned at a height of between 2 to 4 metres. Boxes should be angled so that they face away from the prevailing wind or in a semi sheltered environment. Positioning within or close to hedgerows will increase chances of occupation.	
Timing	Bird boxes will be erected outside of the breeding bird season, to eliminate the possibility of disturbing birds currently utilising the trees for nesting.	
Other Notes	Note that bird boxes should not be opened between the months of March to September to avoid disturbing nesting birds.	
References	https://www.barkboxes.co.uk/product/great-tit-tree-sparrow/ https://www.barkboxes.co.uk/product/starling-box/ https://www.barkboxes.co.uk/product/branch-stub/ https://www.barkboxes.co.uk/product/open-fronted-nest-box/	