

Green Infrastructure Assessment & Ecological Enhancement

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Background

On 11th October 2023¹ the Welsh Government issued updated National Planning Policy for chapter 6 of Planning Policy Wales.

The updated policy guidance recognises the value of green infrastructure within the built environment. In order to facilitate a quality built environment enhanced by integrated green infrastructure all planning applications must now include a green infrastructure statement.

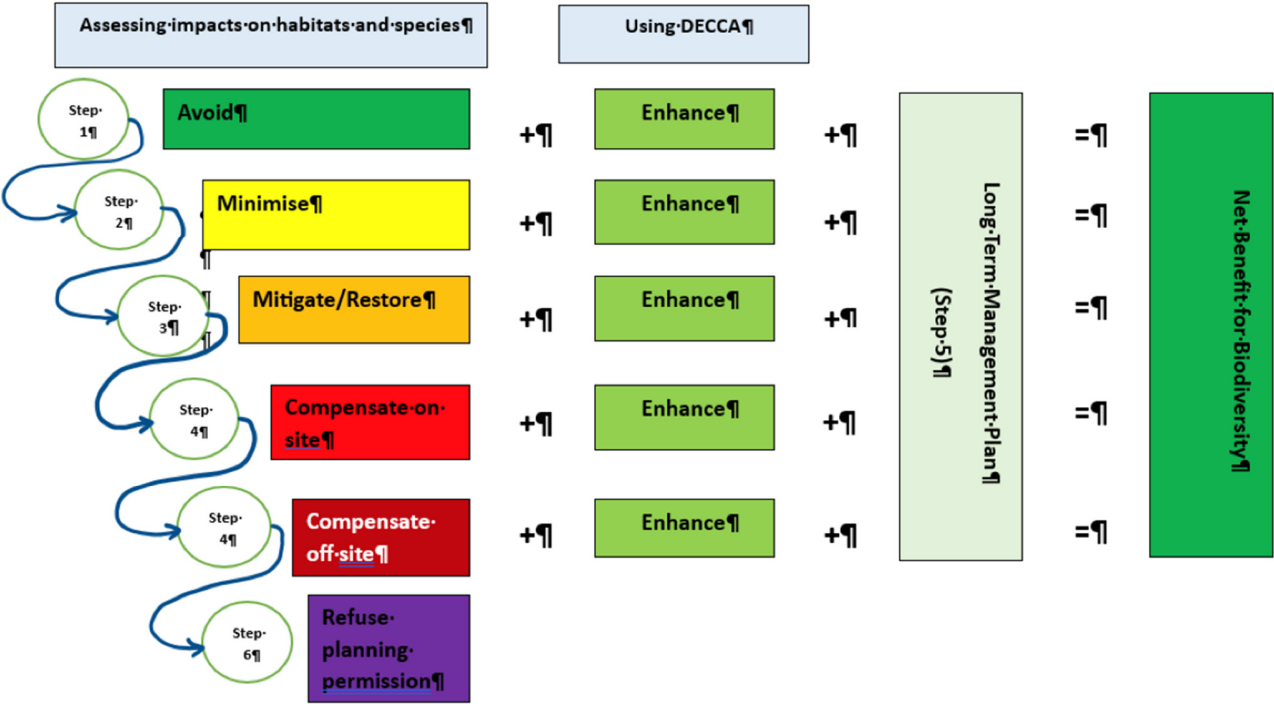
“6.2.6 A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi- functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.21) has been applied.”

Figure 1 below sets out the summary of the stepwise approach as set out in the Annex² to the published advice

¹ <https://www.gov.wales/sites/default/files/publications/2023-10/addressing-the-nature-emergency-through-the-planning-system.pdf>

² <https://www.gov.wales/sites/default/files/publications/2023-10/annex-addressing-the-nature-emergency-through-the-planning-system.pdf>

Figure 1



Proposal

The proposal is for a rear single storey extension, rear deck reduction and replacement and driveway extension to the front.

The Site

The application site is a semi detached dwelling. There are no ecological features within the development.

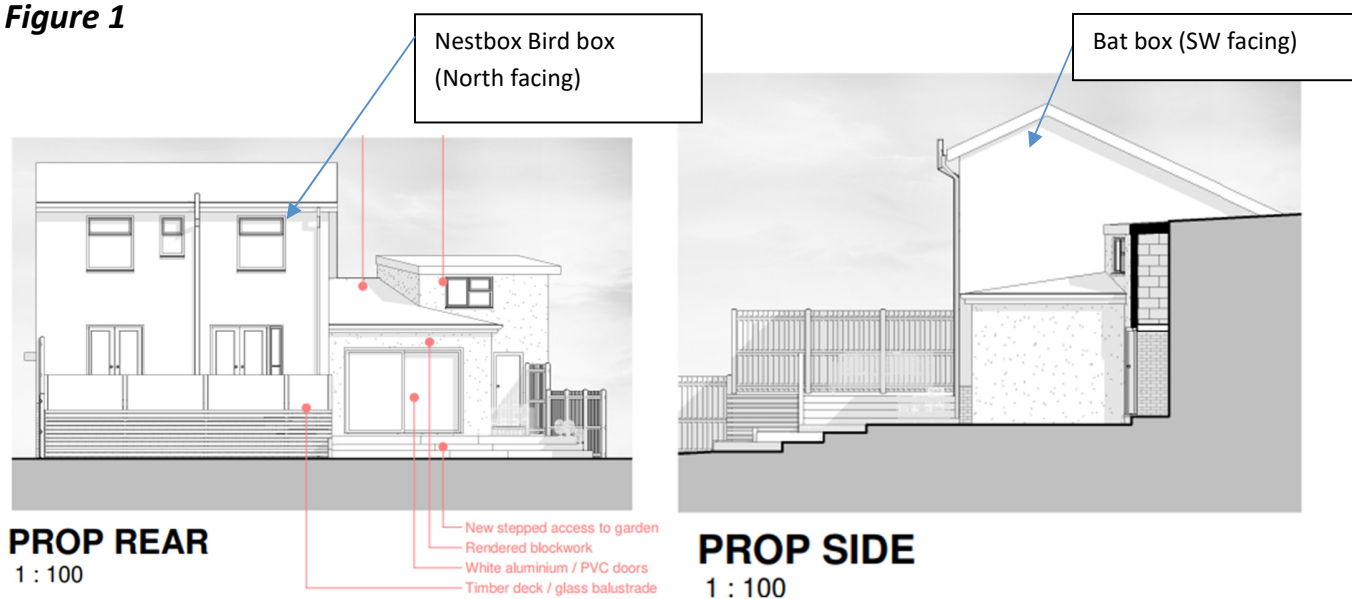
Proposed Enhancement

It is accepted that Future Wales now requires ecological enhancement however, it is submitted that any ecological enhancement must be proportional to the development proposed.

Given the scale of the proposal it is considered that the provision of a bird and bat boxes within the site will provide adequate ecological enhancement. Details of the location of the boxes are set out below **Figure 1**.

Location of bird and bat box

Figure 1



Box Specifications

Bird Boxes

Boxes to attract garden birds and woodland breeding species such as tits, nuthatch, redstart and pied flycatcher can be placed in gardens, orchards, woodlands and a wide

variety of other habitats. The species of birds attracted to the box will depend upon the size of the entrance hole (see table below).

Boxes should be fixed two to five metres up a tree or wall, out of the reach of predators such as domestic cats. Unless there are trees or buildings, which give permanent shelter, it is best facing between north and east.

General		
Example	Description	Picture
Schwegler No. 1B General Purpose Nest box	www.arkwildlife.co.uk Suitable for various garden and woodland birds, created with different sized entrance holes to avoid competition between species. Other variations (e.g. 2M) can be free hanging, to deter predators	
Nestbox Company – Bird Box Kit	https://www.nestbox.co.uk/products/bird-box-kit Suitable for various garden and woodland birds. Wall mounted, FSC Certified Exterior Grade Plywood. 2 fixing holes in top corners of back panel	
Entrance Hole	Species	

26mm	Blue-, Marsh-, Coal- and Crested Tit, possibly Wren. All other species are prevented from using the nest box due to this smaller entrance hole.
32mm	Great-, Blue-, Marsh-, Coal- and Crested Tit, Redstart, Nuthatch, Pied Flycatcher, Tree and House Sparrows.
Oval	Redstart; also used by species that nest in the diameter 32 mm boxes. However, because more light enters the brood chamber, it is preferred by Redstarts.

Under the Wildlife and Countryside Act 1981 it is an offence to disturb breeding birds and therefore annual cleaning cannot be undertaken between the months of March and September inclusive. Bird nest boxes should be cleaned in October to prevent the build-up of nest parasites in the boxes whilst avoiding the risk of disturbing birds using the boxes as a roost site during the cold winter months. All nesting material and other debris should be removed from the box. Ideally, it should then be scrubbed clean with boiling water to kill any parasites (avoid using any chemicals). Once the box is clean, it should be left to dry out thoroughly. Bird boxes should be left up over winter as they can provide useful roosting sites for birds in bad weather.

Bat Boxes



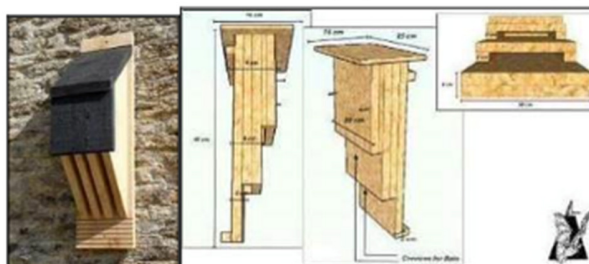
Top: From left to right, the in-wall Schwegler 1FE, the tree mounted 1FF and the multi season 1WQ. The bottom image shows the 1FR in situ.



Right: The Harlech WoodStone bat box offers excellent insulation with a minimum of condensation for roosting bats. WoodStone® is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and WoodStone



tion and Woodstone maintains a consistent temperature inside, providing excellent insulation for roosting bats. **Left:** The Beaumaris bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight. Suitable for attaching to external walls and should be sited as high up on the façade as possible, at a height of at least 3m from the ground. Avoid siting under artificial lights. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups. **Below:** The Vincent Pro bat box (left) and the Kent Bat Box (right)



Site lighting and dark corridors

Measures will be taken to minimise light pollution to reduce any impact on nocturnal fauna such as bats and moths. Any lighting within the rear garden will be in accordance with the guidance provided by the Bat Conservation Trust (BCT 2018). Appropriate ground facing, energy-saving lighting will be used, on timers. There will be

no light spillage into landscape areas such trees and hedgerows on site will not be affected that's allowing dark corridors to be maintained for Nocturnal wildlife.

Implementation

- Bird and Bat Boxes - Within one month of the completion of works

GIA Assessment

Table 1 below sets out the stepwise approach in assessing impacts of a development on habitats and the species

Table 1

	Steps	Assessment	Enhancement	Long Term Maintenance	Net Benefits
1.	Avoid	The application is for a small rear extension The development is located on a site occupied by a dwelling and garage with no ecological features. The proposal avoids damage to any biodiversity and as such accords with the <i>stepwise</i> approach set out in the published advice.	Bird and Bat boxes to be provided	Annual Cleaning as set out above	Yes
2.	Minimise	Na	Na	Na	Na
3.	Mitigate/restore	Na	Na	Na	Na
4.	Compensate on site	Na	Na	Na	Na
5.	Compensate offsite	Na	Na	Na	Na

Conclusion

Applying the step-by-step approach, the assessment indicates that:

- The development avoids any damage to biodiversity
- The proposal provides an ecological enhancement proportionate to the scale of the development.
- The proposed ecological enhancement will be maintained
- There is a net benefit to biodiversity as a result of the development.