Biodiversity Enhancement Report

Site Description

Location: Pont Y Meibion, Llanarmon Road, Glyn Ceiriog, Llangollen, LL20 7HS

Project Overview: Proposed alteration to existing farmhouse fenestration, conversion of listed barn, installation of treatment plant, alteration to existing steel frame building, conversion of outbuilding for office use and construction of new garage and access.

Current Land Use and Habitat: The site includes a farmhouse, listed barn, outbuildings and surrounding land. The barn may currently provide habitats for protected species, including bats and birds, while the lawn and other vegetative features offer moderate ecological value.

Existing Biodiversity Assessment

Habitat Overview: The barn is identified as a potential roosting site for bats and nesting site for swallows and other small bird species. An area of lawn will be impacted by construction, requiring habitat compensation.

Species Overview:
Bats: Bat species may utilize the barn for roosting in the future.
Birds: Swallows, robins, blackbirds, sparrows, tits, redstarts, and spotted flycatchers may use the barn and its surroundings for nesting.
Flora: Surrounding vegetation primarily includes a mix of native and non-native plants.

Environmental Benefits

Protect and Enhance Wildlife Habitat: Compensate for the loss of potential bat roosts and bird nests by installing artificial habitats.

Reinstate Native Vegetation: Introduce native wildflowers, trees, and hedgerows to increase habitat quality and connectivity. The diverse plant species will contribute to the resilience of the local ecosystem to help mitigate the impacts of climate change.

Promote Biodiversity: Create and maintain features to encourage pollinators, birds, and small mammals.

Proposed Enhancements

Bat and Bird Compensation:
Artificial Swallow Nests: Eleven artificial swallow nests will be placed inside the new shelter to replace those lost during barn alterations.

Crevice-Dwelling Bat Box: A Vivara Low Profile Woodstone Bat Box will be installed externally at the south gable end of the barn.

Small Bird Nest Boxes: One woodcrete nest box, suitable for robins, blackbirds, tits, and sparrows, will be placed at the north gable end of the barn. A multi-division nest box (with three subdivisions to support three nesting pairs) will be installed under the eaves, at least 2m from the ground. This will cater to species such as tits, redstarts, and spotted flycatchers.

Habitat Creation and Vegetation Improvements:
Wildflower Area: A 30m² wildflower area will be planted to compensate for the loss of lawn. A native seed mix will be used to promote pollinator activity and biodiversity.

Tree Planting: Four trees, comprising native species, will be planted west of the outbuilding. Proposed species include box elder, holly, and hawthorn.

Hedgerow Planting: Additional hazel and box hedgerow, will be established to enhance habitat connectivity and support local wildlife.

Landscaping Plan

All enhancements will be aligned with the project's Landscaping Plan and Biodiversity plan, which includes the positioning of habitat features, a detailed placement of artificial nests and bat boxes as described above and locations of the wildflower area, tree planting, and hedgerow establishment. It will also show the integration with the development, ensuring that biodiversity enhancements complement the farmhouse and barn alterations while preserving the site's character and demonstrate how the lighting will not impact upon the existing and potential habitats.

Monitoring and Maintenance

Wildlife Monitoring: Regular checks on bat boxes, bird nests, and the planting areas to assess usage and ecological success.

Vegetation Maintenance: Annual review of tree and hedgerow growth, with replacement planting as needed. Wildflower areas will be mowed after seeding season to maintain diversity.

Nest Box Care: Ensure that artificial nests and bat boxes are cleaned and maintained annually to prevent obstructions and promote reuse.

Conclusion

The proposed biodiversity enhancements compensate for any habitat losses and provide long-term ecological benefits for the site. These measures will ensure compliance with conservation goals while fostering a more diverse and sustainable environment.

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