

	Applicant Ecologist statement	LPA Agreement?	LPA Comments
Irreplaceable habitats present?	<p><i>Are there irreplaceable habitats present on site, which will be impacted by development? (see <i>Planning Policy Wales for current list of irreplaceable habitats</i>)</i></p> <p>There are no irreplaceable habitats on the site that will be impacted by development.</p> <p><i>How will these be protected to ensure they are not damaged or lost as a result of the proposals?</i></p> <p>Not applicable.</p>	Y/N	
Protected or priority species/habitats present?	<p><i>The presence of a species protected under European or UK legislation, or under Section 7 of the Environment (Wales) Act 2016 is a material consideration.</i></p> <p><i>Is the proposed development likely to result in disturbance or harm to the species or its habitat?</i></p> <p>Protected/priority species at/around site;</p> <p>Badger</p> <ul style="list-style-type: none"> • Habitat use; No setts found on site. Site has high potential value for foraging. Breaches/paths recorded on site. • Impact due to works; No adverse impacts on Badgers anticipated. Habitat creation proposals will result in loss of open grassland habitat that could be used for foraging, however planting to provide habitat and food will provide resources in the medium-term. Best practice measures and RAMS implemented to avoid disturbance or harm. Access points provided to allow continued movement across site. <p>Bats</p> <ul style="list-style-type: none"> • Habitat use; Trees on site support moderate PRFs, hedges and trees provide moderate value commuting/foraging opportunities. • Impact due to works; No trees will be directly impacted as part of the proposals. As such no direct impacts on roosting bats are anticipated. RAMS are provided (timing, checks by an ecologist) for any works within 10m of trees with moderate or greater roosting potential. Potential negative impacts to foraging/ commuting bats from habitat loss, (such as minor hedgerow breaches or loss of improved grassland) will be mitigated with on-site replacement planting with no loss of habitat value. No site lighting is proposed. 	Y/N	

	<p>New wildlife barn will be constructed, with features specially designed to support roosting bats.</p> <p>Otter</p> <ul style="list-style-type: none"> • Habitat use; Potential dispersal corridors on site boundary. • Impact due to works; No potential impacts likely as works will not impact the stream corridor or scrub zones in the western margin of the site that are in use by Otter; these habitats will be retained and in unchanged condition. Guidance for Pollution Prevention will be adhered to. <p>GCN</p> <ul style="list-style-type: none"> • Habitat use; No breeding pond on site. There is a network of dry ditches associated with some of the hedgerows, and a defunct pond. Terrestrial habitat overall has potential value for dispersal, and moderate-high value at the boundary features. There are 5 waterbodies within 250m of site. • Impact due to works; Risk of the proposed habitat creation works to individual Great Crested Newts is considered low. A method statement accompanying an associated GCN licence application contains details on controlled vegetation removal, hand-searches, and movement of any located animals outside of works area. RAMS are provided for any habitat creation works located further than 250m from a known breeding pond. The habitat creation measures (in particular the creation of new aquatic habitat) will provide enhanced habitats in the medium-term. The defunct pond will be allowed to naturally regenerate. <p>Reptiles</p> <ul style="list-style-type: none"> • Priority species; Adder, Common Lizard, Grass snake • Habitat use; habitats are of low potential value for reptiles, greatest value at the western margins (particularly scrub and grassland) and the unmanaged hedgerows. Site has greatest potential value for grass snake. • Impact due to works; The risk of the proposed habitat creation works to individual Grass Snakes is low. RAMS for reptiles are provided for habitat creation works. The habitat creation works will provide enhanced habitats in the medium-term. Habitat on western margin to be retained. <p>Bird species</p> <ul style="list-style-type: none"> • Habitat use; Numerous nesting opportunities for many species, including priority species. 		
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- **Impact due to works;** All trees are retained. Minor loss of nesting opportunities associated with creation of paths through hedgerow. This will be mitigated by woodland, scrub and hedgerow planting in excess of loss, and a new wildlife barn will be constructed, with features specially designed to support nesting birds. Works which will remove nesting habitat will be done outside of the nesting season or following checks by a qualified ecologist.

White-letter Hairstreak

- **Habitat use;** Habitat supportive of breeding on site.
- **Impact due to works;** Existing habitat maintained, Wych elm (*Ulmus glabra*) to be planted (larval host plant).

Hedgehogs

- **Habitat use;** Wider site for foraging and commuting.
- **Impact due to works;** No significant impact due to works are expected. Integrity of overall site and habitat value will be retained and enhanced. A watching brief for any clearance of hedgerows will be employed. Access points across the site will be provided.

Protected statutory sites;

- No statutory protected sites within 1km.

Priority habitats;

Hedgerow

- **Habitat value;** Assessed as 'local value'.
- **Impact due to works;** Existing gaps utilised for accessways; some short hedgerow sections may be removed to accommodate pathways. This will be compensated for with on-site replacement planting in excess of habitat lost.

How will you ensure that the range and population of the species is sustained.

Habitat monitoring

- Site will be subject to ecological survey prior to works to ensure that there is no harm to existing features which are important for biodiversity.
- Interventions will be monitored using a variety of standard wildlife and habitat survey methodologies to record changes over time and to help guide future management.

	<ul style="list-style-type: none"> The site will be supported by a habitat management plan, which will be updated as required to ensure ongoing maintenance is carried out to deliver the greatest benefits. <p>Habitat creation</p> <ul style="list-style-type: none"> New ponds, native broad-leaved scrub/woodland, hedgerow planting, wildflower grassland creation and management, to achieve net gain for on-site biodiversity. New habitats chosen to be of benefit to range of native wildlife and be of greater value than that of existing habitat in short- medium term. Trees will be planted from local provenance stock grown at the County Tree Nursery. The woodlands will contain species typically associated with Lowland Mixed Deciduous Woodland priority habitat types (NVC W10 community) as well as others known to grow in and around the existing site. Trees will be planted to create a mosaic of woodland habitats to provide a wide variety of ecological niches. The ponds will be left to naturally establish and become colonised by native wetland plant species. New hedgerows will contain a mixture of native broadleaf species including hawthorn, field maple, holly, alder, goat willow, blackthorn, hazel, cherry plum (<i>Prunus cerasifera</i>), crab apple, and rowen. The existing wildflower meadow area is already relatively species rich, containing a variety of native perennial wildflowers associated with grassland habitats. This will be managed using cut and collect equipment and yellow rattle to reduce the fertility of the soil and control the growth of coarse and dominant grasses, allowing the wildflowers to thrive. New species may be added to the sward using local provenance plug plants grown at the County Tree Nursery. 		
<p>Stepwise Approach Followed?</p>	<p><i>Have you followed the stepwise approach to ensure the proposals do not result in harm to habitats and species?</i></p> <p><i>Which step did you reach in your assessment?</i></p>	<p>Y/N</p>	

	<p>Avoid: Overall, no hectareage of green infrastructure is being lost. Some removal of certain vegetation (hedgerow, open grassland) required to facilitate habitat value improvement and installation of reserve infrastructure, causing a loss of vegetation on site prior to completion of development.</p> <p>Minimise: The sections of hedgerow to be removed kept minimal by utilising existing gaps, some removal required to facilitate access.</p> <p>Mitigate: Damage to biodiversity via loss of hedgerow mitigated by replacement planting of planting species-rich hedgerows in excess of loss, providing an increase in species diversity and abundance. Damage to biodiversity via loss of open species-poor grassland mitigated by replacement planting with higher-value, species-rich habitat including scrub pasture and wildflower meadows.</p> <p>Conclusion; Following planting of species-rich habitat, initial loss of biodiversity caused by onset of development at the beginning of development will be mitigated in full, in excess of like for like, accounting for disturbance and time lags for the recovery of habitat and species. Compensation is not required due to mitigation ensuring habitat and species value of the site is maintained.</p> <p>+ Enhancement: additional roosting and nesting provision for bird and bat species; increase in number of ponds from 1 to 14; creation of woodland mosaics and wood pasture.</p>		
<p>*The following section of the Green Infrastructure Statement relates to the components of Ecosystem Resilience (DECCA). When filling out this section you must consider your proposals in the context of Denbighshire County Council’s Green Infrastructure Assessment and demonstrate how they align with that document.</p>			

<p>Diversity</p>	<p><i>How will the proposed development maintain and enhance biodiversity in and around the site?</i></p> <p>Diversity will be increased by; planting of native, species-rich habitats around the site, and maintaining existing species diversity.</p> <ul style="list-style-type: none"> • Woodlands will contain species typically associated with Lowland Mixed Deciduous Woodland priority habitat types (NVC W10 community) as well as others known to grow in and around the existing site. The species will include: <ul style="list-style-type: none"> ○ Pedunculate oak (<i>Quercus robur</i>) ○ Sessile oak (<i>Quercus petraea</i>), ○ Silver birch (<i>Betula pendula</i>), ○ Downy birch (<i>Betula pubescens</i>), ○ Small-leaved lime (<i>Tilia cordata</i>), ○ Hornbeam (<i>Carpinus betulus</i>), ○ Holly (<i>Ilex aquifolium</i>), ○ Wild cherry (<i>Prunus avium</i>), ○ Wild service (<i>Sorbus torminalis</i>), ○ Crab apple (<i>Malus sylvestris</i>), ○ Alder (<i>Alnus glutinosa</i>), ○ Field maple (<i>Acer campestre</i>), ○ Rowen (<i>Sorbus aucuparia</i>) ○ Hazel (<i>Corylus avellana</i>), ○ Goat willow (<i>Salix caprea</i>), ○ Grey willow (<i>Salix cinerea</i>), ○ Hawthorn (<i>Crataegus monogyna</i>). • Ponds will be left to naturally establish native wetland plant species which are not currently found at the site. • The wildflower meadow area is already relatively species rich, containing a variety of native perennial wildflowers associated with grassland habitats. This will be maintained. In addition, this habitat will be managed using cut and collect equipment 	<p>Y/N</p>	
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	<p>and yellow rattle to reduce the fertility of the soil and control the growth of coarse and dominant grasses, allowing the wildflowers to thrive. New species may be added to the sward using local provenance plug plants grown at the County Tree Nursery.</p> <ul style="list-style-type: none"> The majority of hedgerow will be maintained, preserving the current species diversity. In addition, new hedgerows will be created at the site and will contain a mixture of native broadleaf species including hawthorn, field maple, holly, alder, goat willow, blackthorn, hazel, cherry plum (<i>Prunus cerasifera</i>), crab apple, and rowen. 		
<p>Extent</p>	<p><i>How will the proposed development avoid loss in the extent of biodiversity and incorporate measures to appropriately maintain and enlarge existing habitats, especially where extent is small or declining, through habitat restoration and creation with adjoining and nearby areas?</i></p> <p>The existing hectareage of the site is being retained in full as functioning habitat with no loss of species. Habitat infrastructure is being expanded within the site boundaries via woodland and hedgerow planting, and pond creation.</p>	<p>Y/N</p>	
<p>Condition</p>	<p><i>How will the proposed development deliver sufficient scale and functioning natural processes or appropriate management to provide structural complexity and sustain diverse mosaics of habitats?</i></p> <p>The change of use will result in the conversion of grade 3b agriculture land, currently comprised of species poor grassland, to a rich mosaic of native broadleaf woodland, scrub, wood pasture, and wildflower meadow, thus increasing the condition and structural complexity of the site. Previously infilled ponds will be restored, and new ponds created resulting in a total of 14 ponds across the site. A new wildlife barn will be constructed, with features specially designed to support a wide variety of wildlife including nesting birds and roosting bats.</p> <p><i>How do the proposals consider direct, indirect and cumulative impacts and benefits, and seeks to reduce pressures?</i></p>	<p>Y/N</p>	

	<p>Direct impacts: disturbance to species currently utilising the site, loss of small sections of hedgerow. Pressures reduced: Precautionary and Reasonable Avoidance Measures implemented; GCN licence to facilitate works near breeding ponds; re-planting in excess of lost vegetation.</p> <p>Indirect impacts: access points for mammals altered due to deer-proof fencing. Alteration to foraging activity over open grassland due to planting. Pressures reduced: ensuring appropriate access points in new fencing are provided. Planting will provide valuable food and foraging resources once established.</p> <p>Direct benefits: increase in canopy, increase in species diversity through planting and management (and resulting increase in resource availability), increase in nesting and roosting opportunities.</p> <p>Cumulative impact: net gain in species and habitat diversity and abundance.</p>		
Connectivity	<p><i>How will the proposed development identify and incorporate measures which enable appropriate links to be made between the site and its surroundings so as to improve connectivity?</i></p> <p><i>Opportunities include enlarging habitat areas, developing buffers around designated sites or other biodiversity assets or corridors, including transport and river corridors, removal of barriers and the creation of 'stepping stones' to strengthen the ability of habitats and ecological networks to adapt.</i></p> <p>A mosaic of native broadleaf woodland, scrub, wood pasture, and wildflower meadow will be created, thus enlarging and expanding existing habitat and creating valuable new areas of increased structural complexity. Cofnod returned many species of conservation value within 1km; by providing improved and new habitat, the site can provide opportunity for species to expand their current range. For example, new ponds may provide habitat for breeding GCN due to the proximity to St Asaph business park. Barriers to dispersal will be minimised through creation of hedgehog and badger access points, enabling individuals to move throughout the site</p>	Y/N	

	<p>and from/to neighbouring habitats. New roosting opportunities for the array of bats currently utilising the site for foraging and commuting will be provided.</p>		
<p>Adaptability</p>	<p><i>Resistance and recovery from pressures occur when the attributes of ecosystem resilience – diversity, extent, condition and connectivity of ecosystems are in good condition. Habitats and species are not static: planning for nature recovery should aim to sustain habitats and associated species as the geography and landuse changes around them, harnessing natural processes and opportunities for nature-based solutions.</i></p> <p><i>Have all impacts to the ecosystem resilience attributes of biodiversity, using the pressures identified in SoNaRR, been identified?</i></p> <p>Diversity: due to extensive planting and management, diversity of plant species will be increased. Provision of improved habitat diversity will encourage use by species known to occur in the area, thus improving the diversity and abundance of species at the site.</p> <p>Extent: the total hectarage of the existing site will be maintained in full, and the structural complexity improved. Within the boundary of the site, the extent of valuable habitats will be maintained and enhanced.</p> <p>Condition: by working through the step-wise approach, any activities which may reduce the current condition of biodiversity at the site have been addressed, first by avoiding any negative impacts, and then by minimising, and mitigating where required (such as removal of sections of hedgerow, and loss of open grassland). In addition, enhancement has been provided and long-term management will be provided, thus increasing the overall condition of the ecosystems at the site.</p> <p>Connectivity: by increasing the expanse of native vegetation, existing habitat is improved, and new habitat is being provided. Access for mammals and birds is being retained and supporting habitat is being increased. No barriers are proposed to prevent movement into the site by priority and protected species. Nearby sites, including statutory and non-statutory (for example, Glascoed Nature Reserve) will increase the connectivity between this and other sites of ecological value.</p>	<p>Y/N</p>	

	<p><i>Have measures been incorporated to ensure that biodiversity's ability to adapt to, resist and recover from pressures is enhanced? Enhancement of resilient ecological networks and securing and enhancing green infrastructure will be key ways of achieving this.</i></p> <p>Various species of Elms are the larval host-plant for White-letter hairstreak butterfly. The ecological report concludes that use of a disease-resistant elm cultivar within the tree/ shrub and hedgerow planting would be an appropriate means of increasing resistance to disease pressures.</p> <p>Overall maintenance and increase in species diversity due to sensitive planting at the site will increase resilience to local pressures. A reactive management plan will ensure that the site can adapt to future conditions, along with ongoing monitoring to inform the management plan.</p>		
<p>Long term management</p>	<p><i>What mechanism will be used to secure the long-term management of retained habitats?</i></p> <p><i>The management plan should set out the immediate and on-going management of the site, future monitoring arrangements for all secured measures and it should clearly identify the funding mechanisms in place to meet the management plan objectives. The management plan must set out how a net benefit for biodiversity will be achieved within as short a time as possible and be locally responsive and relevant to local circumstances.</i></p> <p>A Habitat Creation and Management Plan will be provided at a later stage in the application. It will include details of monitoring using a variety of standard wildlife and habitat survey methodologies to record changes over time and to help guide future management, and the plan will be updated as required to ensure ongoing maintenance is carried out to deliver the greatest benefits for biodiversity.</p> <p>Funding for the creation of the nature reserve is provided by the Local Places for Nature grant from Welsh Government and the Shared Prosperity Fund from the UK Government. After creation, the site will be within Denbighshire Countryside Service's portfolio of sites and managed accordingly.</p>		

Summary statement of how the proposed development will deliver a net benefit for biodiversity.			
<p><i>Following the stepwise approach, how will you ensure that the proposed development results in a net benefit for biodiversity?</i></p> <p><i>Enhancement measures could include on-site, locally relevant, habitat creation and/or could be part of the development itself favouring the use of native species using biodiverse nature-based solutions such as SUDS, green roofs, grassland management for wildflowers or reptile refugia, woodland expansion, and wetland creation.</i></p> <p>Following the step-wise approach, on-site biodiversity is being maintained through firstly avoidance (no hectarage of green infrastructure is being lost), minimising existing habitat removal, and finally through mitigation in the form of sensitive planting to maintain native species diversity.</p> <p>In parallel to mitigation measures, enhancement is required to result in a net benefit for biodiversity. This is being secured via habitat creation to increase of species diversity, including creation of broadleaf woodland, scrub, wood pasture, ponds, wildflower meadow, and a wildlife barn supporting features capable of providing bird and bat roosting features. Natural water drainage may also be enhanced via increase in habitat complexity and diversity.</p>			
LPA Ecologist Statement			
Signed:		Date:	

*We will soon have LNRAP which will focus on broad habitat types, and identify areas for improvement, in line with DECCA principles (6.2.9 of WG Annex)

**This form should be used as the standard template for "Green Infrastructure Statements" for all non-minor developments needed to comply with 6.2.5 of WG Annex

