



**ETIVE  
ECOLOGY**

**Ecological Services & Solutions**

## **Causeway Farm, Balderstone**

### **Proposed Residential Development**

**Produced For**

**PWA Planning Ltd**

**PRELIMINARY ECOLOGICAL APPRAISAL REPORT**

November 2025

## 1 INTRODUCTION

Report Author	Laura Clement-Evans	Report Reviewer	Russell Grey
Report Version	1	Issue Date	28.11.25
Site Name	Causeway Farm		
Site Location	SD 64578 31454		
Local Authority	Lancashire County Council and Ribble Valley Borough Council		

## 2 METHODOLOGY

<b>Desk Study</b>			
Data Purchased?	Yes	Local Record Centre	Lancashire Environmental Records Network (LERN)
MAGIC reviewed?	Yes	Date of review	23/10/2025
Other sources utilised?	No	Details	n/a
<b>Field Survey</b>			
Date of Survey	06/10/2025	Survey Conditions	Thick clouds and a gentle breeze
UKHab Survey?	Yes	If no, state other	n/a
Protected Species Considered		Amphibians / GCN	Badger
Bats (roosting /foraging/commuting)	Birds (nesting /wintering)	Reptiles	Riparian Mammals
Notable species	INNS		
BNG Assessment?	Yes	Doc version	January 2025
Surveyor Name	Russell Grey	Qualifications	BSc, CIEEM, CEnv. GCN Licensed. Bat Licensed.
	Laura Clement-Evans		BSc, MSc
Survey Constraints	The survey was carried out during the optimal survey season.	Full access to all land within the application site.	Limited access to adjacent land.
<b>References</b>			
Relevant Industry Standards and Guidelines			
Chartered Institute of Ecology and Environmental Management (2017). <i>Guidelines for Preliminary Ecological Appraisal</i> . 2nd edition. CIEEM, Winchester.			
Chartered Institute of Ecology and Environmental Management (2018). <i>Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1</i> . CIEEM, Winchester			
Chartered Institute of Ecology and Environmental Management (2017). <i>Guidelines on Ecological Report Writing</i> . CIEEM, Winchester.			



Chartered Institute of Ecology and Environmental Management (2020). <i>Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK</i> . 2nd Edition. CIEEM, Winchester
British Standard 42020 (2013). <i>Biodiversity – Code of Practice for Planning and Development</i> .
British Standard 8683:2021 (2021). <i>Process for Designing and Implementing Biodiversity Net Gain</i> .
Collins, J. (2023). <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edition</i> . Bat Conservation Trust, London.



### 3 RESULTS



Desk Study	
Statutory Sites <1km	There are no statutory sites within 1km of the application site; the nearest is a section of Darwen River (SSSI) >3km southwest.
Non-statutory sites <1km	There are no non-statutory sites within 1km of the application site.
Priority Habitats <250m	There are no priority habitats within 250m; the nearest is an area of deciduous woodland ~265m northwest of the application site.
Species Records <1km	<u>Amphibians</u> : common toad, common frog, palmate newt, smooth newt and great crested newts (GCN). <u>Bats</u> : common pipistrelle, soprano pipistrelle, noctule, and myotis species including whiskered bats. <u>Birds</u> : song thrush, mistle thrush, barn owl, skylark, meadow pipit, swift, kestrel, oystercatcher, linnet, curlew, house sparrow and grey partridge. <u>INNS</u> : cotoneaster species, montbretia, Japanese knotweed, Himalayan balsam
Relevant Section 41 Habitats/Species	Ponds Hedgerows Brown hare Grass snake Common toad Common frog Great crested newt (GCN) Various species of birds Various species of bats
Field Survey	
Habitats	
Target Note 1: Modified grassland	The site comprised 3.8ha of nutrient-enriched grassland used for silage and sheep grazing. The sward was relatively uniform, with low species diversity. There are occasional patches of soft rush.



	
<p>Target Note 2: Native hedgerow</p>	<p>H4, on the southwest boundary, comprised mostly hawthorn. The hedge was &gt;1.5m in height and width along the length, and there was evidence of nutrient enrichment. Bramble filled the understory along with frequent Himalayan balsam.</p> 
<p>Target Note 3: Native hedgerow with trees</p>	<p>H1, on the northeast boundary, comprised mostly hawthorn with sycamore, ash, dog rose, and bramble interspersed. Patches of nettle, thistle and ivy were found at the base of the hedge, but for most of the length, gaps were present. Himalayan balsam was also frequent.</p>

	
	<p>H3 runs diagonally through the site; it is thin and gappy throughout its length, with little evidence of any management or maintenance.</p>
	
	<p>Both hedges are subject to disturbance and nutrient enrichment from the adjacent modified grassland.</p>
<p>Target Note 4: Native hedgerow – associated with a ditch</p>	<p>H2, on the northeast boundary, comprised hawthorn, blackthorn and holly. Gaps were present at the base of the hedge and within the canopy. There was also evidence of nutrient enrichment in the hedge bottom and surrounding vegetation, such as nettle and creeping thistle.</p>

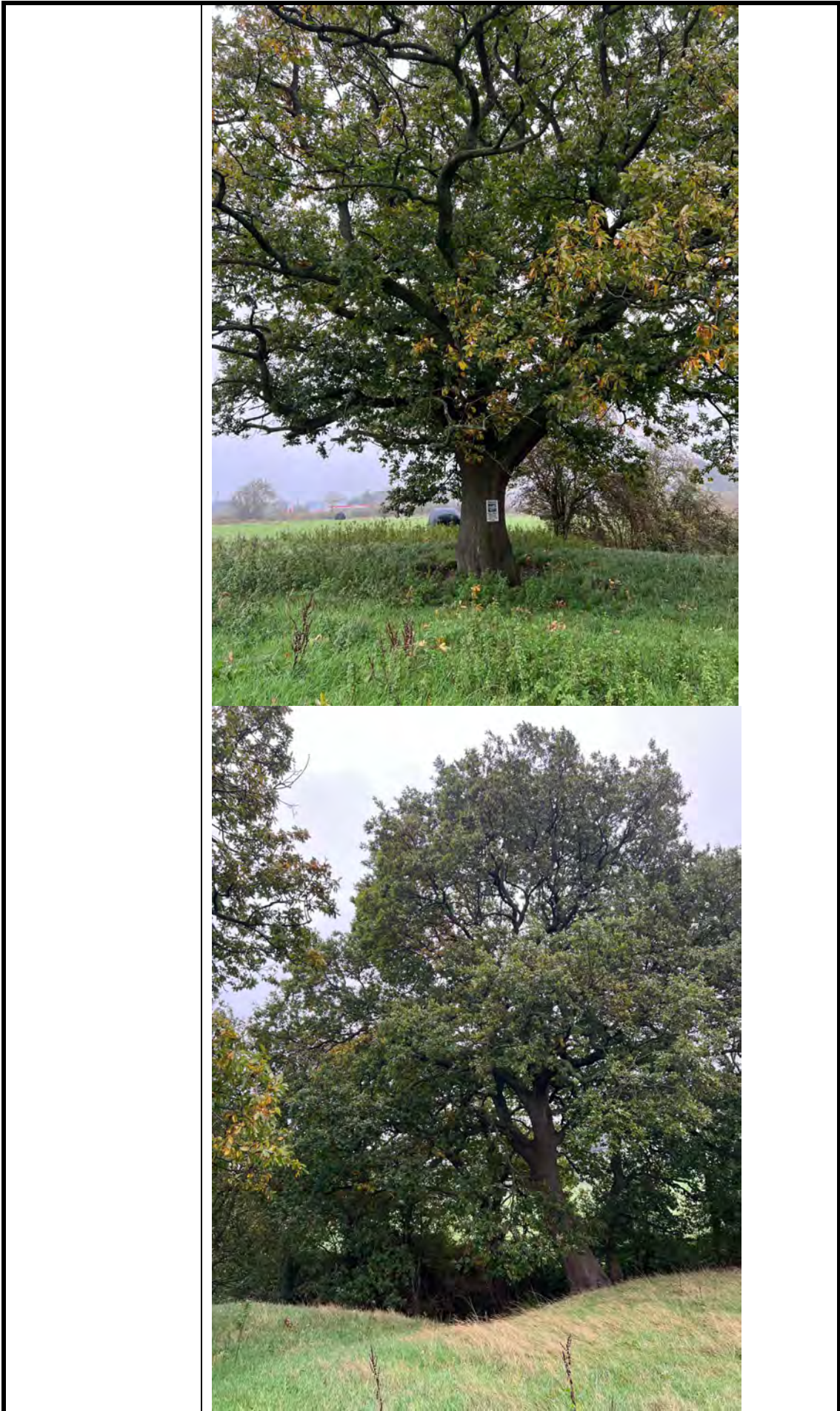
	
<p>Target Note 5: Species-rich native hedgerow with trees – associated with a bank or ditch</p>	<p>There are two species-rich hedgerows on the site's southwest boundary, which run parallel with the stream.</p> <p>H5 is a hawthorn hedge with sections of elder, hazel, oak and blackthorn. The ground vegetation comprises ivy, dock, ferns and nettle. It is &gt;1.5m in height and width, with minimal gaps in the canopy and at the base of the hedge.</p>  <p>H6 is a continuation of H5, but the hedge becomes dominated by trees. Species include hazel, elder, hawthorn, holly, ash, goat willow and oak. The hedge is undisturbed and shows no signs of poor management practices or significant nutrient enrichment.</p>

	
Target Note 6: Watercourse	<p>Himalayan balsam was found in both of these sections of hedge.</p> <p>A brook was present along the south-eastern site boundary; the brook was flowing steadily towards the south of the site. Towards the north of the site, the running water was shallower and became an area of boggy ground at the base of H5. Himalayan balsam was present along the majority of the brook, with field horsetail, bistort and selfheal also present.</p> 

	
<p>Target Note 7: Pond (non-priority) – P1 and other blackthorn scrub</p>	<p>P1 was dry and heavily vegetated at the time of survey, with common rush and the occasional nettle. To the west of this waterbody was a patch of blackthorn scrub with occasional willow.</p> 
<p>Target Note 8: Pond (non-priority) – P2</p>	<p>P2 was also dry and heavily vegetated at the time of survey with yellow flag, hard rush, water horsetail and meadow vetchling.</p>

	
<p>Target Note 9: Ruderals and bramble scrub</p>	<p>There are two areas of ruderals to the south of the site. These areas are dominated by Himalayan balsam, but other species such as nettle and common rush are present in small numbers. There is also a small section of dense bramble scrub in this area.</p> 

	
<p>Target Note 10: Common rush</p>	<p>In the west corner of the site, the scattered rush patches become more frequent and continuous.</p> 
<p>Target Note 11: Rural trees</p>	<p>There are three individual trees on site, two large oaks within the area of ruderals and an ash tree, adjacent to P2. These trees were the expected size for their age and there was no evidence of poor health. PRFs and ecological niches were observed on all of them.</p>



Protected Species	
Amphibians	<p>There are two ponds on site, which were dry at the time of the survey. P1 was filled with common rush and the occasional nettle. Although the summer was exceptionally dry, it is reasonable to assume, given the vegetation density, that the pond hasn't held any significant volumes of water in recent years. A previous ecological appraisal confirmed the pond was dry in 2022. P1 was therefore deemed unsuitable for great crested newts, so no HSI was conducted. P2 was covered in water horsetail with yellow flag and meadow pea surrounding the perimeter. In 2022, this waterbody was assessed as having good suitability for GCN, with a HSI of 0.72. Since then, the pond's suitability has significantly declined as a result of reduced water levels and increased vegetation cover. An updated HSI could not be produced because P2 was dry and the HIS score would have been Negligible.</p> <p>The surrounding terrestrial habitats, blackthorn scrub and species-rich hedgerows, likely provide suitable food sources and shelter for amphibians, though the agricultural nature of the rest of the site limits their suitability.</p> <p>Around the site, there are over 30 ponds within 1km and one within 250m (~90m southwest). Flowing water and busy roads isolate the site from potential breeding habitats, reducing the likelihood of GCN and other amphibians being found there.</p> <p>There are records of frogs, toads, smooth newts and palmate newts within 400m and records of great crested newts that relate directly to the site.</p> <p><b>Overall, GCN and other amphibians are likely to be present on site within semi-natural habitats. Given the poor quality of the two on-site ponds, neither are considered to support breeding populations of GCN.</b></p>
Badger	<p>The grassland habitat on site has limited foraging value for badgers, as it is species-poor, of a homogeneous structure, and is frequently disturbed by farming activities. The hedgerows are likely to offer shelter and commuting routes for badgers, as well as foraging opportunities. The scrub may also be suitable for foraging.</p> <p>There was no evidence of badgers on site or within 30 metres in the surrounding land during the site walkover.</p> <p>There are no records of badgers within 1km of the application site.</p> <p><b>Badgers are therefore considered likely to be absent from the site and from all land within 30 metres.</b></p>
Bats	<p>H1, H2, H3, H5 and H6 consist of a number of mature and semi-mature trees with Potential Roosting Features (PRFs) for bats. These PRFs were assessed to be of Moderate Bat Roost Potential (BRP). There are two individual oaks trees near the southeast boundary (TN9) which support PRFs of high value, meaning they could support a large number of bats regularly and for extended</p>

	<p>periods of time. These trees are assessed to be of High BRP. The individual ash tree near Pond 2 is a younger tree with only a couple of Low value PRFs, leading to a rating of Low BRP.</p> <p>The species-rich hedgerows are likely to support foraging and commuting bats. The agricultural nature of the site means its value to foraging bats will vary, but the lack of artificial lighting and nighttime disturbance is beneficial to bat activity.</p> <p>There are multiple records of bats within 1km of the application site; the nearest of which is whiskered bats &lt;10m.</p> <p><b>Overall, the site has the potential to support roosting bats and is likely to be of moderate value to foraging and commuting bats.</b></p>
Birds	<p>The species-rich hedgerows, scrub and mature trees offer shelter, nesting and foraging opportunities for a range of farmland and common/widespread species. The modified grassland is less suitable but may be of some limited value as a foraging resource. Ground-nesting birds are unlikely to be present owing to the grazing and cutting impacts to the grassland areas.</p> <p>There are multiple records of birds within 1km of the application site; the nearest is a barn owl &lt;90m north of the site.</p> <p><b>Therefore, nesting and foraging birds are likely to be present on the site during the nesting bird season.</b></p>
Reptiles	<p>The grassland that dominates the site is heavily managed and enriched through agricultural practices. The boundary hedgerows may provide some cover and foraging opportunities for reptiles such as the grass snake. However, frequent disturbance from farming activities are expected to deter reptiles from inhabiting the grassland. Additionally, no suitable hibernation sites were identified during the survey.</p> <p>There are no records of reptiles within 1km of the application site.</p> <p>Given these findings, it is reasonable to conclude that <b>reptiles are likely absent from the main body of the site but may be present within hedgerows and ditch corridors.</b></p>
Riparian Mammals	<p>The brook was heavily shaded, with no aquatic vegetation. Vegetation along the banks of the running water mainly comprised Himalayan balsam, which would not provide a food source for water voles. The running water also became shallow, forming a boggy area to the north of the site, further limiting its suitability for water voles.</p> <p>In addition, the brook is unlikely to support fish due to the inconsistent flow of the water, and the site is not connected to any large rivers. The closest, the River Ribble, is located approximately 2.6km northwest of the site boundary. The lack of foraging and commuting habitats limited the likelihood of otter presence.</p>

	<p>The ditch section could be valuable to riparian mammals, but it was dry at the time of the survey. Ditches promote habitat connectivity but require regular maintenance to ensure they remain functional and practical. In its current condition, the ditch has limited ecological value and is likely to be frequently disturbed by farming activities.</p> <p>There are no records of riparian mammals within 1km of the application site.</p> <p>Since the ditch was dry and the brook was of limited value, <b>it is reasonable to assume that riparian mammals are absent from the site boundary.</b></p>
Notable Species	<p>The habitat composition of the site may be valuable to notable species such as brown hare, although disturbance from agricultural practices may limit this suitability. Furthermore, Longsight Road is a barrier to terrestrial movement and ecologically isolates the site from other suitable habitats.</p> <p><b>Notable species such as brown hare or invertebrate species may be present on site, but the value of the site to these species is relatively low.</b></p>
INNS	<p>Himalayan balsam was identified within the ditch, hedges, ponds and sections of tall ruderals along the southwest site boundary. This species is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).</p>
<b>BNG Baseline</b>	
<b>On-Site Habitat Units</b>	
Modified grassland	3.8ha in poor condition, with no strategic significance = 7.6 Habitat Units
Ruderal/Ephemeral	0.25ha in poor condition, with no strategic significance = 0.5 Habitat Units
Bramble scrub	0.02ha (condition assessment n/a), with no strategic significance = 0.08 Habitat Units
Blackthorn scrub	0.0025ha in moderate condition, with no strategic significance = 0.02 Habitat Units
Ponds (non-priority)	<p>1. 0.04ha in poor condition, with no strategic significance = 0.16 Habitat Units</p> <p>2. 0.02ha in poor condition, with no strategic significance = 0.08 Habitat Units</p>
Rural Tree	0.0895ha in good condition, with no strategic significance = 1.07 Habitat Units
<b>Total Baseline Score</b>	<b>9.51 Habitat Units</b>
<b>On-Site Hedgerow Units</b>	
Native Hedgerow	H4, 0.12km in moderate condition, with no strategic significance = 0.48 Hedgerow Units
Native Hedgerow with trees	<p>H1, 0.29km in moderate condition, with no strategic significance = 2.32 Hedgerow Units</p> <p>H3, 0.14km in poor condition, with no strategic significance = 0.56 Hedgerow Units</p>

Native Hedgerow – associated with a bank or ditch	H2, 0.13km in poor condition, with no strategic significance = 0.52 Hedgerow Units
Species-rich native hedgerow with trees - associated with a bank or ditch	H5, 0.14km in good condition, with no strategic significance = 3.36 Hedgerow Units H6, 0.2km in good condition, with no strategic significance = 4.80 Hedgerow Units
<b>Total Baseline Score</b>	<b>12.04 Hedgerow Units</b>
<b>On-Site Watercourse Units</b>	
Ditch	0.1km in poor condition, with no strategic significance, no watercourse encroachment and major/major riparian encroachment = 0.3 Watercourse Units
<b>Total Baseline Score</b>	<b>0.3 Watercourse Units</b>

## 4 DISCUSSION

<b>Proposed Scheme</b>		
<p>The proposed scheme is to develop the site for residential use. The outline proposal is for a relatively low density of units, scattered throughout the site, with the retention of existing boundaries and ponds and the creation of new public open space, gardens and surface water attenuation.</p> <p>The Post Intervention UKHab Map in Appendix 2 illustrates the proposed site layout. The planning application includes detailed plans.</p>		
<b>Ecological Receptor</b>	<b>Likely Impacts</b>	<b>Action / Recommendation</b>
All habitats	<p>There will be a loss of modified grassland, bramble scrub and some small sections of hedgerow.</p> <p>All impacts on habitats have been captured within the BNG Metric calculation (attached).</p>	<p>It is recommended that the areas not being developed be enhanced and managed in the long term to deliver the necessary BNG Units to meet the 10% BNG targets.</p> <p>A Habitat Management and Monitoring Plan (HMMP) will need to be drafted for the area to demonstrate how the target habitat condition can be met. This could be secured by way of a planning condition.</p>
Amphibians	<p>There is a low to moderate risk of disturbing and/or harming amphibians as a result of the proposed scheme.</p> <p>The development as proposed will not significantly affect the higher value habitats; ponds, hedgerows, etc. However, it will result in the loss of lower-value</p>	<p>It is recommended that the scheme be registered on the District Level Licensing Scheme for GCN to mitigate and compensate for these impacts on GCN.</p> <p>Reasonable Avoidance Measures (RAMs) should be adopted, including site clearance in a</p>

	<p>terrestrial habitats, including modified grassland, bramble scrub and tall ruderals.</p>	<p>directional and phased manner under ecological supervision. Any amphibians encountered should be relocated by a licensed ecologist to a nearby suitable habitat.</p> <p>All retained and newly created habitats should be subject to a long-term habitat management plan with targets related explicitly to GCN/amphibians.</p>
<p>Bats</p>	<p>Potential for direct impacts on roosting bats within any trees that may need to be removed or subject to tree works. However, all such trees with bat-roost potential appear to be outside the development footprint.</p> <p>Potential for indirect impacts on bat roosts within trees during the construction phase: noise, vibration, and artificial lighting.</p> <p>There is potential disturbance to foraging/commuting bats associated with the residential use of the site. These impacts include artificial lighting and noise.</p>	<p>It is recommended that a Tree Survey be conducted to assess the impacts on mature and semi-mature trees. Any trees requiring removal or located within 10m of the proposed works should undergo a climb/inspect bat survey. If bats are confirmed to be roosting, a Bat Mitigation Licence will be required to disturb or remove the trees.</p> <p>It is recommended that as much of the existing hedgerow network as possible be retained and incorporated into the scheme. All retained habitats should be subject to a long-term management plan with targets specifically relating to bats.</p> <p>Artificial lighting should be minimised as part of the proposed scheme. A Lighting Plan should be designed in accordance with best practice to minimise impacts on foraging/commuting bats.</p> <p>It is recommended that a bat box scheme be designed and implemented for the proposed development. This is likely to comprise one bat box for every other new property on site, with 50% installed in new properties and 50% installed on retained trees within H6 or elsewhere on site.</p>
<p>Birds</p>	<p>Potential for direct impacts on nesting birds as a result of site</p>	<p>It is recommended that all vegetation clearance be</p>

	<p>clearance. Loss of habitat used by foraging and nesting birds.</p> <p>Disturbance impacts as a result of the change in use from agricultural to residential.</p>	<p>conducted outside the nesting bird season (March to September inclusive). Where this is not possible, a suitably experienced ecologist should inspect the area before removal. If any active nests (or nests in construction) are located, work should cease in that area until chicks have fledged.</p> <p>It is also recommended that a bird box scheme be designed and implemented for the new development. This is likely to comprise one integrated bird box for every other new property on site.</p> <p>The landscaping scheme should be designed to include native berry and seed-rich species to provide additional foraging resources.</p>
Reptiles	<p>Potential for direct impacts on reptiles from site clearance to any of the boundary habitats: field margins, ditches and hedgerows.</p> <p>Post-development interference impacts from the change in use from agricultural to residential.</p>	<p>A scheme of RAMs should be designed and implemented to cover site clearance works. These should include careful timing to avoid impacts during the hibernation period and two-staged directional vegetation cuts.</p> <p>Boundary corridors should be retained where possible and subject to a long-term Habitat Management Plan with targets specifically aimed at habitat connectivity for reptiles.</p>
Notable Species	<p>Potential for direct impacts on notable species as a result of site clearance.</p> <p>Loss of habitat used by foraging and notable species.</p>	<p>RAMs should be implemented to prevent unnecessary disturbance or harm to these species. This should include phased vegetation clearance and pre-commencement checks prior to removing the hedges.</p> <p>All habitats retained on site should be subject to a long-term management plan with specific targets for notable species.</p>

INNS	<p>Potential spread of Himalayan balsam during site clearance and construction.</p> <p>Potential introduction of INNS during the occupational phase of the scheme arising from garden waste.</p>	<p>An invasive non-native species management plan should be created before work commences to prevent accidental spread and ensure that all contaminated materials are kept on site or securely contained and disposed of at a licensed facility.</p> <p>All habitats retained on site should be subject to a long-term management plan with specific targets for INNS.</p>
<b>BNG Post Intervention</b>		
<b>On-Site Habitat Unit</b>		
Developed land; sealed surface	1.63ha (condition assessment n/a), with no strategic significance = 0 Habitat Units	
Vegetated garden	0.70ha (condition assessment n/a), with no strategic significance = 1.35 Habitat Units	
Ponds (non-priority)	<p>1. 0.04ha enhanced to moderate condition, with no strategic significance = 0.25 Habitat Units</p> <p>2. 0.02ha enhanced to moderate condition, with no strategic significance = 0.13 Habitat Units</p>	
Sustainable drainage system	0.09ha in good condition, with no strategic significance = 0.30 Habitat Units	
Mixed scrub	0.35ha in good condition, with no strategic significance = 2.94Habitat Units	
Other neutral grassland	1.30ha (formerly modified grassland) enhanced to moderate condition, with no strategic significance = 8.06 Habitat Units	
Rural tree	<p>0.0895ha to be retained in good condition, with no strategic significance = 1.07 Habitat Units.</p> <p>0.2524ha (~62 new small trees) in moderate condition, with no strategic significance = 0.77 Habitat Units</p>	
Total	14.88 Habitat Units	
<b>On-Site Hedgerow Units</b>		
Native Hedgerow	H4, 0.12km retained in moderate condition, with no strategic significance = 0.48 Hedgerow Units	
Native Hedgerow with trees	<p>H1, 0.29km retained in moderate condition, with no strategic significance = 2.28 Hedgerow Units</p> <p>H3, 0.13km enhanced to moderate condition, with no strategic significance = 0.94 Hedgerow Units</p>	
Native Hedgerow – associated with a bank or ditch	H2, 0.13km enhanced to good condition, with no strategic significance = 1.39 Hedgerow Units	
Species-rich native hedgerow with trees - associated with a bank or ditch	<p>H5, 0.14km retained in good condition, with no strategic significance = 3.36 Hedgerow Units</p> <p>H6, 0.2km retained in good condition, with no strategic significance = 4.80 Hedgerow Units</p>	
Total	13.25 Hedgerow Units	
<b>On-Site Watercourse Units</b>		

Ditch	0.1km enhanced to moderate condition, with no strategic significance, no watercourse encroachment and major/no encroachment riparian encroachment = 0.65 Watercourse Units
<b>BNG Summary</b>	
Change in Habitat Units	+5.37
% Change	+56.42%
Change in Hedgerow Units	+1.21
% Change	+10.05%
Change in Watercourse Units	+0.35
% Change	+116.59%
Comments	<p>The proposed scheme as detailed herein and shown on the associated plans, is expected to meet and exceed the 10% BNG Targets for Habitat, Hedgerow and Watercourse Units. In addition, the Habitat Trading Rules are also satisfied within the BNG Metric.</p> <p>In order to achieve the anticipated number of units, habitats on site will need to be retained/created/enhanced and subject to 30 years of Habitat Management and Monitoring.</p>

## 5 CONCLUSIONS

- 5.1 Etive Ecology Ltd has undertaken a Preliminary Ecological Appraisal (PEA) of Causeway Farm, off Longsight Road, Balderstone. The proposed scheme involves developing the site for residential use, along with associated infrastructure and landscaping. The survey effort comprised an extended UKHab Survey, a desk study, a BNG assessment, and consideration of likely impacts. Recommendations are given about further surveys and/or mitigation measures.
- 5.2 The desk study confirmed that there are no statutory or non-statutory nature conservation sites within 1km of the application site. There is one area of deciduous woodland ~265m northwest of the application site. There are records of amphibians and various species of bats, birds and other notable species within 1km of the application site.
- 5.3 The site comprises nearly 3.80ha of modified grassland, which has been used for silage and grazing livestock. The boundaries comprise native and species-rich hedgerows, with a ditch along the northeast and a brook along the southeast. The BNG baseline score for the site was 9.51 Habitat Units, 12.04 Hedgerow Units, and 0.30 Watercourse Units. These habitats have the potential to support amphibians (including GCN), foraging/roosting bats, foraging/nesting birds, reptiles and notable species such as brown hare.
- 5.4 The proposed scheme will result in a loss of modified grassland, bramble scrub, tall ruderals and small sections of hedgerows during site clearance and construction, which will be replaced predominantly by developed land and vegetated gardens. The post-intervention scores will be 14.88 Habitat Units, 13.25 Hedgerow Units, and 0.65 Watercourse Units (a net change of +5.37, +1.21, and +0.35). The loss of semi-natural habitats will have negative impacts on amphibians, reptiles, foraging/roosting bats, foraging/nesting birds and notable species, but the retention and enhancement of the most valuable habitats can mitigate these impacts.
- 5.5 The proposed scheme and habitat enhancements generate enough units to meet the mandatory 10% BNG target. All retained habitats should be covered by a long-term Habitat Management and Monitoring Plan (HMMP) to secure the anticipated BNG units post-intervention. Any trees proposed for removal should undergo a further bat survey, comprising a climb/inspection. Site clearance should be timed to avoid both the hibernation period and the nesting bird season, with above-ground vegetation cut before nesting commences and ground vegetation cleared during the 'active' season. Impacts on GCN should be mitigated by entering the District Level Licensing Scheme. A sensitive lighting scheme, along with bat and bird box schemes, should be implemented. An INNS management plan will be required to remove Himalayan balsam from the site.
- 5.6 In conclusion, the site is found to be of moderate ecological value, potentially supporting legally protected and notable species. Development will result in the loss of semi-natural habitats of value to these species. The scheme will also result in a positive BNG score, which exceeds the mandatory 10% BNG target. Therefore, if all recommendations given herein are implemented in full, the proposed scheme is not expected to have significant adverse residual impacts on biodiversity.

## **APPENDIX A**

### **UKHab Baseline Map**

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## **APPENDIX B**

### **UKHab Post-Intervention Map**

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## **APPENDIX C**

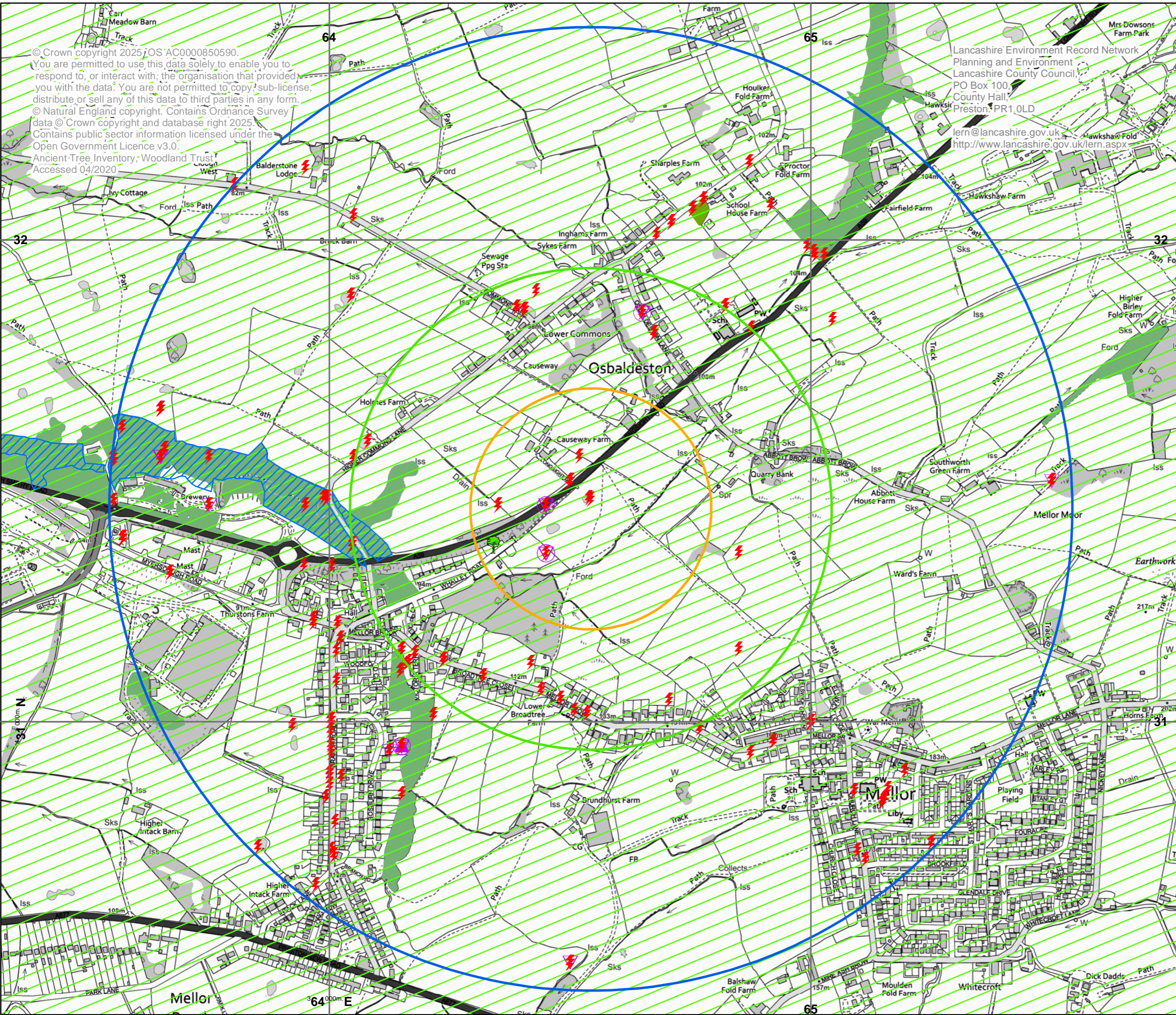
### **Biological Records**

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 Ancient Tree Inventory; Woodland Trust  
 Accessed 04/2020

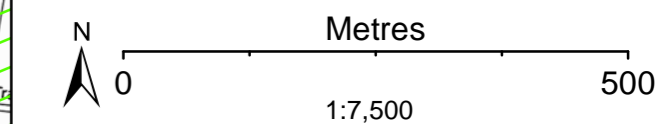
Lancashire Environment Record Network  
 Planning and Environment  
 Lancashire County Council,  
 PO Box 100,  
 County Hall,  
 Preston PR1 0LD  
 lern@lancashire.gov.uk  
 http://www.lancashire.gov.uk/lern.aspx

**Project:**  
 Causeway Farm  
**Client:**  
 Eitive Ecology  
**Grid Ref:** 364543 431442



- 250 m Buffer
- 500 m Buffer
- 1 km Buffer
- Lancashire Key Species
- Bat Roost or Possible Roost
- Other Bat Record
- Ancient Tree Inventory
- SLBG Bat Roost or Possible Roost
- SLBG Other Bat Record
- Biological Heritage Sites
- FC/BTO Wader Zonal Map
- Deciduous woodland
- Traditional orchard

**N.B. THIS IS AN INTERACTIVE PDF  
 LAYERS CAN BE TURNED ON OR OFF  
 TO AID CLARITY.**



Boundaries of statutory designations (Natura 2000, SSSI etc) are included for information only. <ITA> Definitive information for these designations should be obtained from Natural England.

Lancashire Key Species records are plotted at the centre of the area to which they relate (the precision of each record is given in the accompanying attribute data and spreadsheet).



## **APPENDIX D**

### **BNG Metric and Condition Assessments**

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Condition Sheet: DITCH Habitat Type			
Habitat Type			
Watercourses - Ditches			
Habitat Description			
See the Statutory Biodiversity Metric User Guide.			
Adjacent to H2 a dry ditch lead towards the watercourse in the northeast corner of the site.			
On-site or off-site, site name and location	Causeway Farm	Survey date and Surveyor name	Etive Ecology (06/10/25)
Limitations (if applicable)	/	Survey reference (if relating to a wider survey)	/
Grid reference	SD6431 6955	Habitat parcel reference	/
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	N	
B	A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.	N	
C	There is less than 10% cover of filamentous algae and or duckweed <i>Lemna</i> spp. (these are signs of eutrophication).	N	
D	A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.	N	
E	Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.	N	
F	Sufficient water levels are maintained - as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.	N	
G	Less than 10% of the ditch is heavily shaded.	N	
H	There is an absence of non-native plant and animal species <sup>1</sup> .	N	
<b>Number of criteria passed</b>			0
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/√	
Passes 8 criteria	Good (3)		
Passes 6 or 7 criteria	Moderate (2)		
Passes 5 or fewer criteria	Poor (1)	x	
Suggested enhancement interventions to improve condition score			



Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	Causeway Farm	Survey date and Surveyor name	Etive Ecology (06/10/25)
Limitations (if applicable)	/	Survey reference (if relating to a wider survey)	/
Grid reference	SD 64608 31460	Habitat parcel reference	/
Habitat Description			
The site appeared to be used for silage and grazing sheep. The landscape was uniform, and species diversity was low.			
<a href="#">ukhab – UK Habitat Classification</a>			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m <sup>2</sup> present, including at least 2 forbs (these may include those listed in Footnote 1). <b>Note - this criterion is essential for achieving Moderate or Good condition.</b>  Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m <sup>2</sup> (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	N	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present).  Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .	Y	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	Bracken is absent from the modified grassland
G	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).	N	Himalayan balsam is present within hedges and has spread into the modified grassland in some areas.
Essential criterion achieved (Yes or No)			No
Number of criteria passed			4
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/√	

Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	x	

**Suggested enhancement interventions to improve condition score**

**Footnotes**

**Footnote 1** – Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*.

**Footnote 2** – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

**Footnote 3** – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

**Footnote 4** – Wildlife and Countryside Act 1981 (as amended).

Condition sheet: HEDGEROW Habitat Types																
Habitat Type																
<b>Native hedgerow</b> Native hedgerow - associated with bank or ditch Native hedgerow with trees Native hedgerow with trees - associated with bank or ditch Species-rich native hedgerow Species-rich native hedgerow - associated with bank or ditch Species-rich native hedgerow with trees Species-rich native hedgerow with trees - associated with bank or ditch																
Habitat Description																
H1 - A hawthorn hedge with sycamore, ash, dog rose and bramble interspersed along the length. Nettle, thistle and ivy were present at the base. H2 - comprised hawthorne, blackthorn and holly (it was thin at the base in areas). H3 - was a hawthorn hedge sepering the feilds, it was tall but thin and species such as nettle and himilayan balsam were found. H4 - Comprised hawthorn with species such as nettle and himilay balasam present. H5 - Hawthorn hedge with elder, hazel, oak, blackthorn and ivy, dock, ferns and nettle at the base. H6 - Species rich hedge (hazel, elder, hathorn, holly, ash, goat willow) with some very mature oaks. Hirnilayam balsam was also present.																
<a href="#">ukhab – UK Habitat Classification</a>																
On-site or off-site, site name and location		Causeway Farm		Survey date and Surveyor name		Etive Ecology (06/10/25)										
Limitations (if applicable)		/		Survey reference (if relating to a wider survey)		/										
Condition Assessment Details																
A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.																
This assessment is based on the Hedgerow Survey Handbook <sup>1</sup> and Favourable Conservation Status document <sup>2</sup> . For further clarification please refer to the Hedgerow Survey Handbook.																
Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.																
Hedgerow favourable condition attributes																
Attributes and functional groupings (A, B, C, D and E)	Criteria - the minimum requirements for 'favourable condition'	Criteria description	Habitat parcel reference													
			H1	H2	H3	H4	H5	H6								
			SD643 1 5249	SD643 1 6955	SD643 1 6449	SD643 1 4634	SD64 31 6948	SD64 31 5836								
Core groups - applicable to all hedgerow types			Criterion passed (Yes or No)										Notes (such as justification)			
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.  Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).  A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Y	N	Y	Y	Y	Y							
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.  Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >0.5 m in height.  Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Y	N	N	Y	Y	Y							
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.  Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	N	N	N	Y	Y	Y							

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).  Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Y	N	N	Y	Y	Y									
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.  Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.  This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	N	Y	N	N	N	Y									
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N	N	N	N	Y	Y									
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA <sup>3</sup> ) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website <sup>4</sup> , as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website <sup>7</sup> .	Y	N	Y	N	N	N									
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.  This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	Y	N	N	Y	Y	Y									

**Additional group - applicable to hedgerows with trees only**

E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient <sup>8</sup> ), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	Y	N	Y		Y	Y									
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Y	Y	Y		Y	Y									

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees			Score achieved					
Category	Category Requirements	Metric Score						
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.	3						

Moderate	No more than 4 failures in total; <b>AND</b> <u>Does not fail both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2								
Poor	Fails a total of more than 4 attributes; <b>OR</b> <u>Fails both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1								
<b>Score achieved:</b>										
<b>Condition categories for hedgerows with trees</b>			<b>Score achieved</b>							
<b>Category</b>	<b>Category Requirements</b>	<b>Metric score</b>								
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.	3								
Moderate	No more than 5 failures in total; <b>AND</b> <u>Does not fail both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2								
Poor	Fails a total of more than 5 attributes; <b>OR</b> <u>Fails both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1								
<b>Score achieved:</b>										
<b>Suggested enhancement interventions to improve condition score</b>										



Passes 3 or 4 criteria	Moderate (2)													
Passes 2 or fewer criteria	Poor (1)													
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.														
<b>Suggested enhancement interventions to improve condition score<sup>2</sup></b>														

Condition Sheet: POND Habitat Type												
Habitat Type												
Lakes - Ponds (priority habitat)												
Lakes - Ponds (non-priority habitat)												
Lakes - Temporary lakes ponds and pools (H3170) [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]												
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]												
Habitat Description												
Both ponds were dry at the time of the survey, and vegetation had fully encroached on the area.												
<a href="#">ukhab – UK Habitat Classification</a>												
On-site or off-site, site name and location	Causeway Farm		Survey date and Surveyor name	Etive Ecology (06/10/25)								
			Survey reference (if relating to a wider survey)	/								
Limitations (if applicable)	/		Habitat parcel reference									
			1	2								
Condition Assessment Criteria			Grid reference									Notes (such as justification)
			SD	SD								
			64463	64533								
			31401	31460								
			Criterion passed (Yes or No)									
<b>Core Criteria - applicable to all ponds (woodland<sup>1</sup> and non-woodland):</b>												
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	N	N									
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	N	N									Modified grassland (low distinctiveness) surrounds both ponds. P1 has an area (25m <sup>2</sup> ) of
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	N	N									
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.	Y	Y									
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams <sup>2</sup> , pumps or pipework.	Y	Y									
F	There is an absence of listed non-native plant and animal species <sup>3</sup> .	Y	Y									
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	N	N									
<b>Additional Criteria - must be assessed for all non-woodland ponds:</b>												
H	Emergent, submerged or floating plants (excluding duckweed) <sup>4</sup> cover at least 50% of the pond area which is less than 3 m deep.	N	N									
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Y	Y									
Number of criteria passed		4	4									
Condition Assessment Result	Condition Assessment Score	Score Achieved x/√										
<b>Results for woodland ponds which require assessment of 7 core criteria</b>												



Condition Sheet: SCRUB Habitat Type			
<b>Habitat Types</b>			
Heathland and shrub - Blackthorn scrub Heathland and shrub - Gorse scrub Heathland and shrub - Hawthorn scrub Heathland and shrub - Hazel scrub Heathland and shrub - Mixed scrub Heathland and shrub - Dunes with sea buckthorn (H2160) Heathland and shrub - Willow scrub			
<b>Habitat Description</b>			
There is a small area of blackthorn scrub adjacent to P1.			
For Dunes with sea buckthorn see:	<a href="http://jncc.gov.uk">Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)</a>		
For other scrub types see:	<a href="#">ukhab – UK Habitat Classification</a>		
<b>On-site or off-site, site name and location</b>	Causeway Farm	<b>Survey date and Surveyor name</b>	Etive Ecology (06/10/25)
<b>Limitations (if applicable)</b>	/	<b>Survey reference (if relating to a wider survey)</b>	/
<b>Grid reference</b>	SD 64454 31396	<b>Habitat parcel reference</b>	/
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). <sup>1</sup> - At least 80% of scrub is native, - There are at least three native woody species <sup>2</sup> , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Y	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran <sup>3</sup> ) shrubs are all present.	Y	
C	There is an absence of invasive non-native plant species <sup>4</sup> (as listed on Schedule 9 of WCA <sup>5</sup> ) and species indicative of suboptimal condition <sup>6</sup> make up less than 5% of ground cover.	Y	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Y	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	
		<b>Number of criteria passed</b>	
<b>Condition Assessment Result (out of 5 criteria)</b>	<b>Condition Assessment Score</b>	<b>Score Achieved</b> x/√	

Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	x	
Passes 2 or fewer criteria	Poor (1)		
<b>Suggested enhancement interventions to improve condition score</b>			

Condition Sheet: URBAN Habitat Type												
<b>Habitat Types</b>												
Sparsely vegetated land - Ruderal/Ephemeral Sparsely vegetated land - Tall forbs Urban - Allotments Urban - Biodiverse green roof Urban - Bioswale Urban - Cemeteries and churchyards Urban - Facade-bound green wall Urban - Ground based green wall Urban - Intensive green roof Urban - Open mosaic habitats on previously developed land Urban - Rain garden Urban - Sustainable drainage system (SuDS) Urban - Vacant or derelict land Urban - Bare ground												
<b>Habitat Description</b>												
There are two areas of tall forbs to the south of the site. These areas are dominated by Himalayan balsam, but other species such as nettle and common rush are present in small numbers.												
See the Statutory Biodiversity Metric User Guide for green roofs, and UK Habitat Classification (UKHab) for other habitats: <a href="#">ukhab – UK Habitat Classification</a>												
<b>On-site or off-site, site name and location</b>	Causeway Farm			<b>Survey date and Surveyor name</b>		Etive Ecology (06/10/25)						
				<b>Survey reference (if relating to a wider survey)</b>		/						
<b>Limitations (if applicable)</b>	/			<b>Habitat parcel reference</b>								<b>Notes (such as justification)</b>
				1	2							
			<b>Grid reference</b>									
			SD 64517 31329	SD 64587 31388								
<b>Condition Assessment Criteria</b>												
Core Criteria - must be assessed for <b>all urban habitat types</b> :												
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.			N	N						Areas are dominated by Himalayan balsam, making them uniform in structure, foraging and shelter opportunities	
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.			N	N							
C	Invasive non-native plant species (listed on Schedule 9 of WCA <sup>1</sup> ) and others which are to the detriment of native wildlife (using professional judgement) <sup>2</sup> cover less than 5% of the total vegetated area <sup>3</sup> .  <b>Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than &lt;5% cover).</b>			N	N							
Additional Criterion - must be assessed for <b>Open mosaic habitat on previously developed land</b> only:												
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS:  - At least four early successional communities (a) to (i);  Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.											
Additional Criteria - must be assessed for <b>Bioswale and SuDS</b> habitat types only:												
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife <sup>4</sup> .											
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.											
Additional Criterion - must be assessed for <b>Intensive green roofs</b> only:												

