



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

GREEN INFRASTRUCTURE ASSESSMENT
RETROSPECTIVE APPLICATION
FARM ACCESS TRACK AT BERTHENGROUN FARM

Project name: Berthengron Farm, Sontley, Wrexham

Grid Reference: SJ33724727

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Requested by: Berrys

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Retrospective planning permission is being sought for the upgrading and restoration of a farm track at Berthengron Farm, Sontley. A previously existing track was inadequate for modern farm machinery and required levelling and widening. In addition, the acquisition of additional land necessitated the formation of a route suitable for the herding of livestock between land parcels without the need to use public roads.

Given that the works to the track and field have been completed, a detailed assessment of previous land-use or ecological interest is not possible. Aerial photographs have been used, along with a site survey, to provide a broad assessment of conditions at the site prior to the original construction of the access track. The Local Planning Authority's Ecologist has requested a Green Infrastructure Assessments in support of the application to determine Net Biodiversity Benefit, advising that *"assessment of the site needs to be carried out prior to when the work was done using best available evidence"*.

Arbor Vitae Environment were commissioned by Berrys to provide an overview of the Green Infrastructure at the site, and evidence of how the proposed plans accord with the 'Step Wise' approached, as set out in Planning Policy Wales 11, Chapter 6.

Planning Policy Wales (edition 11) describes a Green Infrastructure Assessment as "an integrated map-based evidence resource which uses existing datasets and the best available information to map existing green infrastructure and ecological assets" (PPW 11, 6.2.6). Green Infrastructure Assessments will largely be conducted by Local Planning Authorities in Wales, with 'on-the-ground' information provided in the form of Ecological Assessments, accompanying all planning applications (where applicable).

1.2 SCOPE OF ASSESSMENT

The following document aims to set out the existing and proposed green infrastructure associated with the development site. Guidance Note 042 'Green Infrastructure Assessments' has been used as a reference point for providing appropriate information.

The Welsh Information for Nature-based Solutions mapping platform was accessed and several data sets interrogated. Other data sources accessed include Data Map Wales.

The North East Wales Area Statement (<https://naturalresources.wales/about-us/what-we-do/strategies-and-plans/area-statements/north-east-wales-area-statement/introduction-to-north-east-wales-area-statement/?lang=en>) sets out the priorities or 'themes' which have been developed within the area. The five priorities within this area are:

- Climate emergency: resilience and adaptation,
 - Develop and improve urban/rural green infrastructure,
 - Increasing woodland cover for social, environmental and economic benefits,
 - Promoting the resilience of ecosystems in maintaining and enhancing biodiversity,
 - Protecting water and soil through farming and sustainable land management.

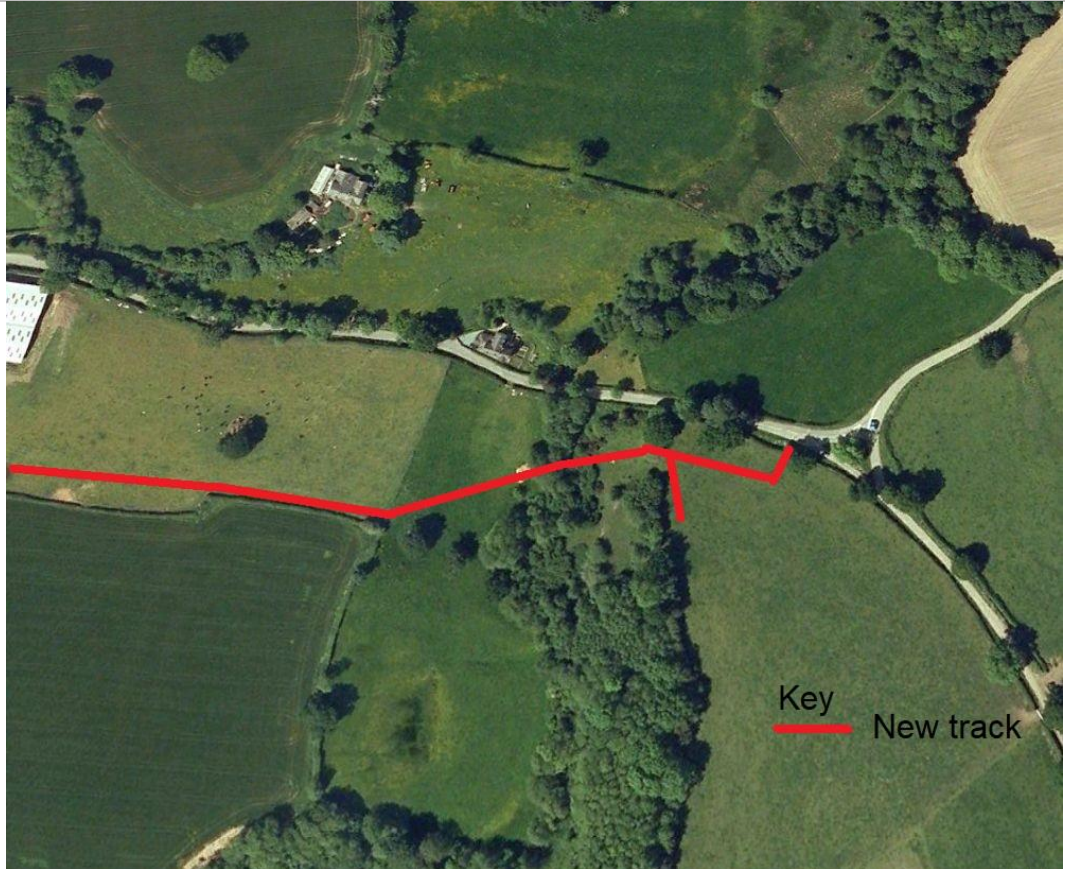
1.3 PERSONNEL

This report has been prepared by William Prestwood BSc: Ecologist at Arbor Vitae with 35 years' experience.

2 GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE ASSESSMENT	
BASELINE	No previous ecological assessments have been carried out at the site. The site lies 280 metres to the east of Berthengron Farm and 1.7 kms to the south of the edge of Wrexham. The trackway crosses parts of two fields, one of which has been traditionally arable and the other improved grassland. Between the two fields runs the Gefeiliau Brook within a narrow belt of woodland. The trackway crosses the stream which is now culverted at this point and this crossing point effectively creates a break in the streamside woodland of approximately 10 metres width. The land either side of the stream woodland has been intensively managed and is therefore assumed to have supported minimal ecological diversity except for the boundary hedges. Hedgerows have been retained with the exception of a short length which was originally lost where the track emerges onto the minor road. One statutorily designated site, Sontley Marsh SSSI, lies 131 metres to the north and extends northwards along the Gefeiliau Brook. Green infrastructure at the site was, and is, largely limited to the woodland along the stream and the watercourse itself. The ground flora of the woodland indicates that the woodland is 'ancient' in origin i.e. has been present for several centuries. There are no effective fences along the edges of the woodland and livestock, notably sheep, gain access to the woodland and stream.

New track
superimposed
on aerial
photo
showing land
before
construction



PRIORITIES

- Climate emergency: resilience and adaptation.

Plans for the site include planting of 0.13ha of trees and 72 metres of new hedgerow contributing to carbon sequestration in addition to habitat benefits including buffering ancient woodland.

- Develop and improve urban/rural green infrastructure.

The plans for the site will provide new woodland and hedgerow cover adding to habitat connectivity.

- Increasing woodland cover for social, environmental and economic benefits.

Planting of 0.13ha of long-lived broadleaved native trees will compensate for any lost trees by a factor of approximately 10 times. In addition, fencing of the ancient woodland areas against stock will prevent continued grazing of woodland flora and will aid recovery of understorey and tree regeneration.

	➤ Promoting the resilience of ecosystems in maintaining and enhancing biodiversity. New woodland planting will buffer ancient woodland, increase available habitat. Whilst preventing stock access to woodland will prevent degradation of ancient woodland and reduce disturbance/erosion of watercourse banks. ➤ Protecting water and soil through farming and sustainable land management. Gefeiliau Brook will be protected from disturbance from farm animals as a result of the fencing of riparian woodland. A hard surface track prevents soil erosion and soil compaction which results from stock herding across fields in wet conditions.
OPPORTUNITY	In addition, the presence of the improved track enables better control of farm animals including new fencing to prevent access to woodland areas. ➤ New native woodland A total of 0.13ha of new native woodland will be established. The number of trees will be 208. ➤ Species-rich native hedgerow A total of 72m of new hedgerow will be planted on the boundary of the track. Native species will be utilised including holly, hawthorn, hazel, field maple and guelder rose. • ➤ Wildlife boxes A total of six Woodcrete bird boxes (suitable for hole-nesting species) and four general purpose Woodcrete bat boxes will be installed in mature trees on the edge of the existing woodland.

3 STEP-WISE APPROACH

The Steps	
Avoid	Not applicable
Minimise	Steps were evidently taken in construction to avoid unnecessary disturbance to the hedgerows alongside the track.
Mitigate/restore	The loss of approximately 10 metre section of streamside trees inevitably creates a loss of connectivity in this riparian habitat. This requires mitigation through the creation on new woodland areas as close to the site as possible. The proposed plans will include the creation of 0.13ha of new native woodland utilising the following species to reflect local conditions: pedunculate oak, common alder, downy birch, wild cherry, field maple, hazel, holly, crabapple and guelder rose. 72 metres of new native hedgerow will be planted along the trackway boundary fencing to create a link between existing hedgerows and the stream side woodland. Sheep-proof fencing will be erected along the edges of existing woodland and also on the boundary of the new woodland in order to prevent access by livestock. Specific mitigation measures for protected species will include the installation of four general purpose bat boxes and six nest boxes for hole-nesting birds. These will all be positioned in mature trees along the streamside.
Compensate on site	See 'Opportunity' section of previous table for details of proposed enhancement measures.
Compensate off-site	Not applicable.

4 REFERENCES

Natural Resources Wales (2023) Green Infrastructure Assessments: A guide to key Natural Resources Wales' datasets and how to use them as part of a Green Infrastructure Assessment. GN042.

Welsh Government (2024) Planning Policy Wales. Edition 12.

5 PHOTOGRAPHS

	Entrance at start on new trackway
	Route of track across stream corridor



Riparian woodland to be securely stock-fenced to prevent access to ancient woodland and stream



Area proposed for new woodland planting