



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

GREEN INFRASTRUCTURE ASSESSMENT
RETROSPECTIVE APPLICATION
FARM ACCESS TRACK AND SITE LEVELLING
LAND EAST OF BERTHENGRON FARM

Project name: Land East of Berthengron Farm, Sontley,
Wrexham

Grid Reference: SJ34044703

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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. The works also involved the clearance of an area of 'non-agricultural' land and its re-instatement as arable land.

A previously existing track, constructed by a Public Utilities company, 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. The area of cleared land was, until its recent purchase, used as a shooting practice area by another owner.

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 580 metres to the east of Berthengron Farm and 1.7 kms to the south of the edge of Wrexham. The upgraded trackway leads eastwards from a minor road and allows access to blocks of land now in the ownership of Berthengron Farm. It passes between a hedgerow on the north side and a fence to the south which form the boundaries of arable fields to each side. No hedgerow removal or tree removal has been necessitated by the works to the track. An area of land to the south of the track, measuring approximately 0.34ha, is now incorporated into the arable field and there is no evidence on the ground of previous land use or presence of other habitats. However, various maps indicate the presence of a small area of open water and aerial photographs from 2006 indicate a possible pool with surrounding scrub and one mature tree. In 2006, the cleared area appears to be part of, and indistinguishable, from the remainder of

the field which was grassland. By 2021, the aerial photograph indicates that the area had possibly been fenced and appears to be rough grassland. The clearance of the site therefore has probably resulted in the change of most of the area from improved grassland to arable which probably does not represent a significant ecological loss. However, the works have resulted in the loss of a pond and associated bankside scrub.

One statutorily designated site, Sontley Marsh, lies 450 metres to the north west of the site and extends northwards along the Gefeilau Brook.

A large pond lies adjacent to the track at its western end. This has been used as a fishing pool in the past but this use has now ceased.

**Aerial photo
of site taken
in 2006**



Aerial photo
dated 2021



PRIORITIES

- Climate emergency: resilience and adaptation.

Biodiversity enhancements plans for the site revolve around works to optimise the significant ecological value of the existing pond at the site. This will include the planting of new native hedgerow and native trees to extend the existing tree cover around the pool. This will contribute to carbon sequestration in addition to habitat benefits.

- 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 approximately 65 long-lived broadleaved native trees will compensate for any lost trees by the land clearance by a factor of approximately 20 times.

- Promoting the resilience of ecosystems in maintaining and enhancing biodiversity.

New woodland planting will buffer existing woodland habitat. The pond area has now been securely fenced to prevent stock access to the area of open water and its

	surrounding scrub/woodland. This will prevent degradation of the woodland and, importantly, the fringe of reed swamp around the margins of the pool. ➤ Protecting water and soil through farming and sustainable land management. The quality of water in the pool will benefit from the cessation of trampling of banks whilst the controlled movement of stock along trackways, rather than across field surfaces, in times of wet weather will prevent Soil compaction and potential erosion
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 approximately 60 native trees will be established to supplement trees in woodland surrounding the pool and a small area at the site entrance (approximately 0.04ha) will be planted. ➤ Species-rich native hedgerow A total of 95m of new hedgerow will be planted on the fringe of the woodland by the pool following fencing. Native species will be utilised including holly, hawthorn, hazel, field maple and guelder rose. ➤ Wildlife boxes A total of four Woodcrete bird boxes (suitable for hole-nesting species) and two 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 a field pond requires mitigation and this can be achieved either through creation of a new water body or the improvement of existing water bodies. The former solution is impractical due to the lack of suitable sites and the absence of a water course. Mitigation will therefore be achieved by the development of the existing pool as a wildlife conservation area. This will involve fencing of the site to prevent stock access (already completed) and the planting of a boundary hedgerow and additional trees which will include pedunculate oak, common alder, downy birch, wild cherry, field maple, hazel, holly, crab-apple and guelder rose. 95 metres of new native hedgerow will be planted along the trackway boundary fencing to create a link between existing hedgerows and the poolside 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

	UPGRADED TRACK
	SITE RETURNED TO ARABLE USE



EXISTING POOL TO BE
MANAGED AS WILDLIFE
CONSERVATION AREA



POOL AND WOODLAND AREA
NOW FENCED TO PREVENT
ACCESS BY STOCK. HEDGE TO BE
PLANTED ALONG LINE OF FENCE

6 PROPOSED CONSERVATION AREA

