



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



GREEN INFRASTRUCTURE ASSESSMENT

LAND AT OVERTON-ON-DEE

Project name: Overton-on-Dee, Wrexham

Grid Reference: SJ37624184

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Requested by: Pickstock Homes

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the construction of 44 new residential properties on a piece of land at Overton-on-Dee, Wrexham. Previous land use at the site has been agricultural, mainly grazing.

The village of Overton is located between Ellesmere and Wrexham, just over the north Shropshire border. The land surrounding the village is a mixture of agricultural arable, permanent pasture and semi-natural broadleaved woodland. The development site currently sits adjacent to existing residential properties at the west boundary.

The site is made up of 1.89ha of modified grassland, all of which will be lost. Existing native hedgerow and trees at the edges of the site will be retained and protected throughout work. The proposals at the site will include the creation of 0.36ha of other neutral grassland, a wildlife pond measuring 150m², the planting of 52 native trees and 366m of species-rich native hedgerow.

Arbor Vitae Environment were commissioned by Pickstock Homes Ltd to provide an overview of the Green Infrastructure at the site, and evidence of how the proposed plans accord with the 'Step Wise' approach, 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:

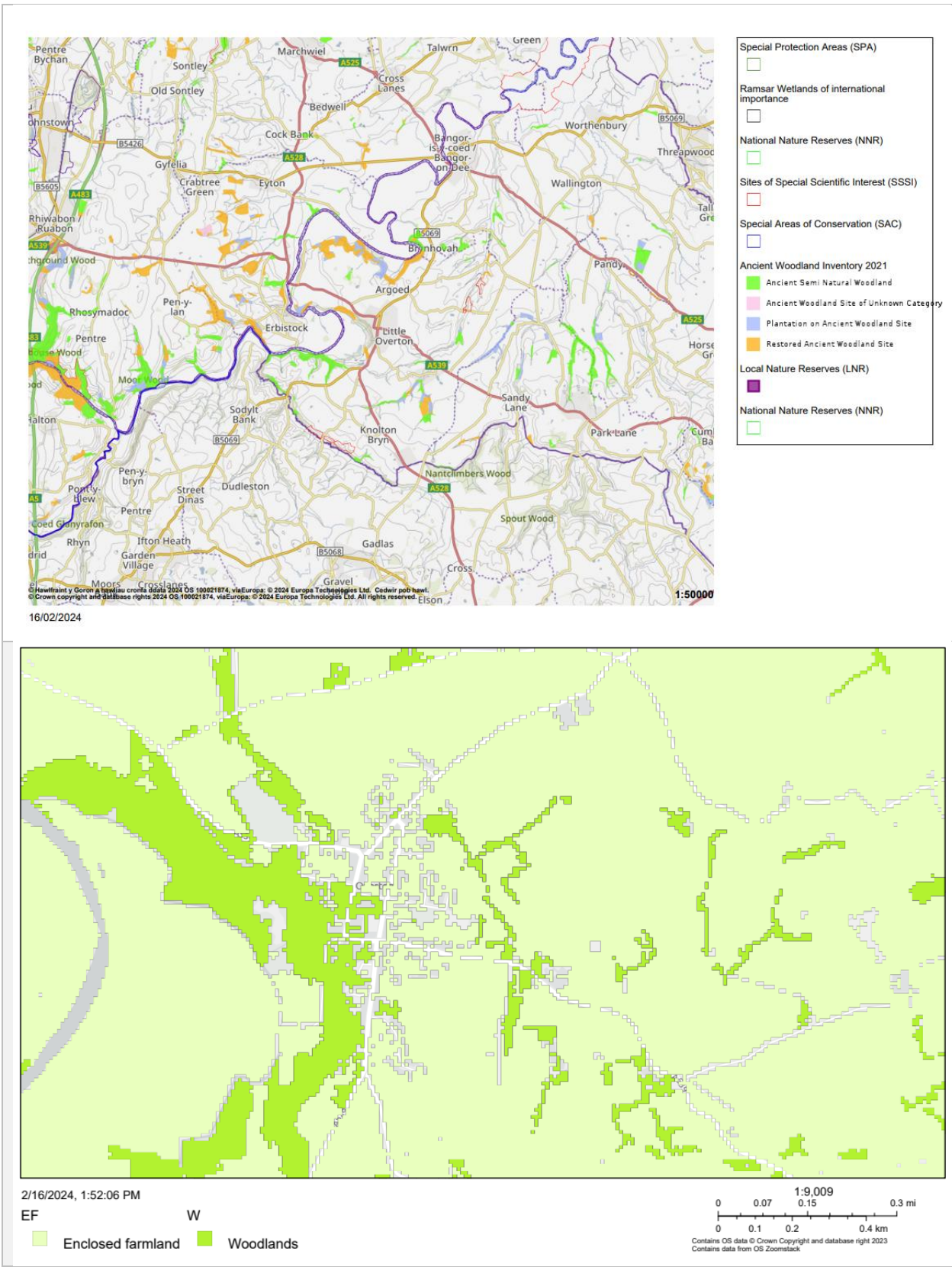
- Climate emergency: resilience and adaptation,
- Develop and improve urban/rural green infrastructure,
- Increasing woodland cover for social, environmental and economic benefits,
- Promoting the resilience of ecosystems in maintaining and enhancing biodiversity,
- Protecting water and soil through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

1.3 PERSONNEL

This report has been prepared by Phillipa Stirling BSc MSc ACIEEM: Ecologist.

2 GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE ASSESSMENT	
BASELINE	Please refer to the following documents which have already been completed for the site: ➤ Ecological Impact Assessment – Land at Overton-on-Dee ➤ Overton – tree report Nov 2022 ➤ Appendix 1 Overton development site Nov 2022 ➤ Overton1- TP ➤ Overton1- TS The site lies at the eastern edge of the existing settlement of Overton-on-Dee. The land to be developed is intensively managed, with little ecological diversity except for the boundary hedge features. There are no statutorily designated sites immediately adjacent to the development boundary, and the closest sites are Neile’s Wood and Dee Banks Wood at 200m, both are Wildlife Sites. Green infrastructure at the site is currently limited to boundary features including hedgerow, mature trees within the hedgerows, and adjacent woodland parcels. A small plantation sits at the north boundary of the site, consisting of a mixture of young broadleaf and coniferous trees. The boundary features form ecological networks which can be used by a range of wildlife, especially birds. These features are mostly in very good condition, having been maintained regularly for a number of years. Sheep grazing has resulted in some of the hedgerows being damaged at the base, but not to the detriment of the health of the hedge.





PRIORITIES

- Climate emergency: resilience and adaptation.

Plans for the site include adoption of a SUD system, and creation of open grassland areas within parts of the site which would otherwise not be developable.

Planting of long-lived broadleaved trees will provide individual habitat, as well as canopy-level connectivity, and long-term ground level shading.

- Develop and improve urban/rural green infrastructure.

The plans for the site will provide a diverse network of urban trees, which once developed, have the potential to provide almost-continuous canopy cover within the development site.

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

There is limited scope at this site to increase the local woodland cover. Planting of long-lived broadleaved native trees will provide some relative value in overall canopy cover.

	➤ Promoting the resilience of ecosystems in maintaining and enhancing biodiversity. All features at the site which provide any value to wildlife will be maintained and protected throughout works (hedges and trees). The improved grassland field is of negligible ecological significance and therefore its loss will have no impact upon local biodiversity. ➤ Protecting water and soil through farming and sustainable land management. The land will be taken out of agricultural use but the plans will include the adoption of a SUD system. This will ensure that the housing development will be sustainable from a drainage perspective.
OPPORTUNITY	The proposed habitat creation has been designed to provide as much habitat continuity and linear landscape links, providing additional corridors for wildlife along the east boundary. The retention of all hedgerow features and healthy trees will provide good habitat connectivity in perpetuity. ➤ Other neutral grassland The landscape proposals for the new development will include areas of Public Open Space, to be seeded with native, species-rich grassland. The habitat will cover an area of 0.3602ha within the site boundary. The proposed habitat has medium distinctiveness and will be maintained in moderate condition. ➤ Individual tree A total of 52 native trees will be planted throughout the scheme. Trees are assumed to be 'small' after 30 years. A total canopy cover of 0.2117ha will be provided with tree planting. The proposed habitat has medium distinctiveness and will be maintained in moderate condition. ➤ Developed land; sealed surface Houses, roads, footpaths and driveways will occupy approximately 0.8932ha of land within the site boundary. The proposed habitat has very low distinctiveness and its condition is not applicable. ➤ Vegetated garden Front and rear gardens will account for 0.6201ha of land within the site boundary. The proposed habitat has low distinctiveness and its condition is not applicable. ➤ Ponds (non-priority habitat)

	One wildlife pond will be created at the south east corner of the site. The pond will measure 150m². The proposed habitat has medium distinctiveness and will be maintained in moderate condition. ➤ Hedgerow All hedgerows will be retained and protected throughout work at the site. Hedge 1-4 currently provides low distinctiveness and will be maintained in good condition. ➤ Species-rich native hedgerow A total of 366m of new hedgerow planting will take place throughout the site, including between properties and along roadsides. The proposed habitat has medium distinctiveness and will be maintained in moderate condition.
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3 STEP-WISE APPROACH

The Steps	
Avoid	Early plans for the site included development up to, and within, the root protection area of a large mature oak tree (0800). An extract from the tree report states: "The development as currently indicated will impact on the Root Protection Area (RPA) of this tree and it is recommended that further consideration is given to layout in this section of the proposed development". Plans were therefore altered to ensure that this feature would not be impacted by the development on site. Root protection areas have been taken into account for the whole site, and the plans adjusted accordingly.



Minimise	Tree protection using barrier fencing is prescribed for the boundary hedges and trees using specifications and methods referenced in BS5837:2012. Ground protection areas are identified on plan 'Overton1- TP'.
Mitigate/restore	The loss of 2ha of improved grassland will have limited impact upon wider ecological systems. The proposed site plans will include the allocation of 0.4ha of open grassland which will provide high quality, species-rich grassland. Although not equal to that being lost, creation of higher quality habitat will provide a betterment with regard to pollen and nectar resources on site which will create biodiverse pockets amongst the development. Specific mitigation measures for protected species are also required and have been provided within 'Ecological Impact Assessment – Land at Overton-on-Dee'.
Compensate on site	Ecological enhancement measures for the site will provide a range of features which are designed to encourage the development of a healthy ecosystem, alongside the residential properties. 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.