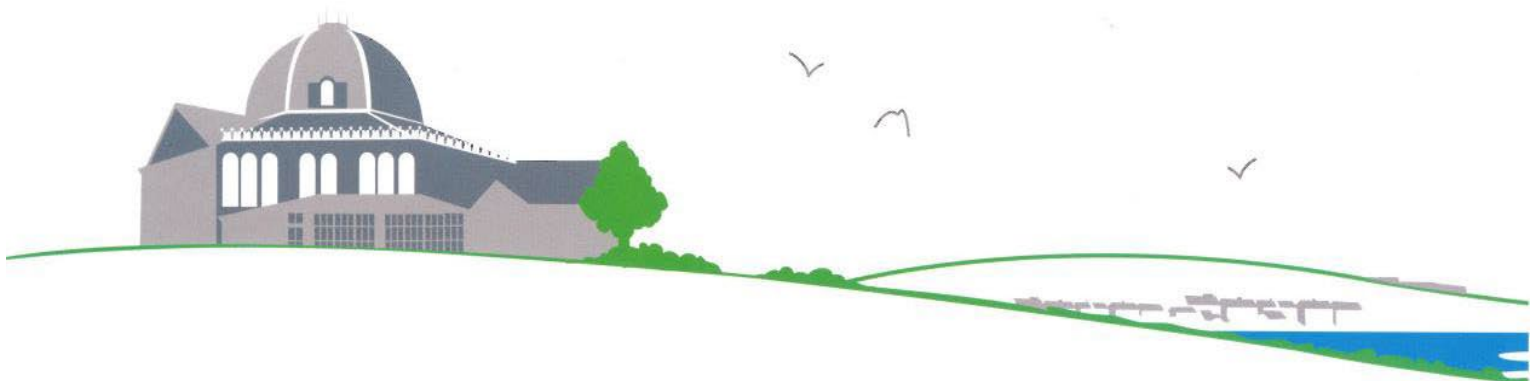




WREXHAM COUNTY BOROUGH COUNCIL

MAES Y CAPEL

BIODIVERSITY ENHANCEMENT PLAN



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BIODIVERSITY ENHANCEMENT PLAN

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This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed: _____



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1. INTRODUCTION

- 1.1 Penny Anderson Associates (PAA) has been commissioned by Wrexham County Borough Council to complete a Biodiversity Enhancement Plan (BEP) of Maes Y Capel, Wrexham; hereafter referred to as the 'site'.
- 1.2 The BEP is based on baseline data obtained from a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment for Bats (PRA) of the site previously carried out and reported (PAA 2023). These surveys provided an ecological baseline of the site and assessed the ecological value of the habitats prior to development, to enable an assessment of the longer-term effect of the development.
- 1.3 The BEP has been developed to identify biodiversity enhancements and/or habitat creation opportunities that could be put in place within the site. The aim of the BEP is to provide practical ecological recommendations which will result in demonstrable enhancements for biodiversity post-development.

Policy Context

- 1.4 A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended).
- 1.5 Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CROW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).
- 1.6 Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.
- 1.7 Section 7 goes on to deal with biodiversity lists and duty to take steps to maintain and enhance biodiversity. This section replaces the duty in Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 in Wales. The Welsh Ministers publish, review and revise lists of living organisms and types of habitat in Wales that they consider are of key significance to sustain and improve biodiversity in relation to Wales. These are known as Priority Species and Priority Habitats¹.

¹ <https://www.biodiversitywales.org.uk/environment-wales-act>

- 1.8 Finally, Planning Policy Wales (PPW 2021²) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes³ (TAN), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales.
- 1.9 The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.
- 1.10 The Environment (Wales) Act 2016 also introduces the Sustainable Management of Natural Resources (SMNR) and sets out a framework to achieve this as part of decision-making. The relevant key features of the SMNR approach to which the planning system can contribute are:
- Improving the resilience of ecosystems and ecological networks;
 - Halting and reversing the loss of biodiversity;
 - Maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits and solutions; and
 - Ensuring resilient locational choices for infrastructure and built development, taking into account water supplies, water quality and reducing, wherever possible, air and noise pollution and environmental risks, such as those posed by flood risk, coastal change, land contamination and instability.
- 1.11 This report indicates how the options for Maes Y Capel presented in the BEP might contribute to achieving a positive outcome for biodiversity.

² https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

³ <https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning>

2. BIODIVERSITY ENHANCEMENT PLAN

Pre-development

2.1 The following habitat types were recorded on and adjacent to the site during the field survey and are illustrated on the Phase 1 Habitat Plan (Figure 1):

- Amenity grassland;
- Introduced/ornamental shrubs;
- Ephemeral/short perennial vegetation;
- Scattered trees;
- The building and hardstanding.

2.2 Each habitat is described in more detail below.

Amenity Grassland

2.3 Compartments of mown amenity grassland were present around the grounds of the structure. The grassland was dominated by perennial rye-grass⁴, with a variety of forbs typical of amenity mown grassland including daisy, moss species and common mouse-ear. Yarrow and common chickweed were also present and locally frequent in some areas.

Introduced/Ornamental Shrubs

2.4 Ornamental plant and shrub beds were present in the south and west of the site. These comprised predominantly introduced species such as cherry laurel, Japanese barberry, viburnum species and at least three species of cotoneaster. Native species such as holly, ash and pear were also present.

2.5 Wall cotoneaster, a plant listed as an invasive non-native species (INNS) on Schedule 9 of the WCA, 1981 (as amended) was recorded in the west of the site (see Target Note 1, Appendix 1 for location).

Ephemeral/Short Perennial Vegetation

2.6 Scattered ephemeral/short perennial vegetation was present in paving cracks and at the foot of the building.

Scattered Trees

2.7 A small number of scattered trees were located in the south of the site, including silver birch, cherry species and Scots pine.

Building and Hardstanding

2.8 The building was assessed to have Low potential to support roosting bats but was otherwise of limited ecological value.

⁴ Plant species names follow Stace 2019. Scientific names can be found in PAA 2023.

Post-development

- 2.9 The site footprint will not change drastically as a result of the development. Nevertheless, the development presents an opportunity to enhance outcomes for biodiversity. The following proposals are made to contribute as biodiversity enhancement for the site post-development, as illustrated in Figure 2.

Grassland

- 2.10 Some areas of amenity grassland will be lost and further divided up as a result of the development. Due to the limited extent of grassland present, it is recommended that the retained grassland compartments are managed as they were pre-development to retain the amenity qualities of the grassland, and instead focusing on enhancements to other ecological aspects as suggested below.

Shrubs and Hedgerows

- 2.11 The patches of introduced shrub in the south and west of the site will be removed.
- 2.12 As replacement and enhancement, hedge and ornamental plantings will be located around the site (see Figure 2).
- 2.13 Mixed native hedge will be planted at the north-west of the site and will incorporate predominantly native woody species.
- 2.14 The new ornamental beds around the site will continue to have an ornamental quality in keeping with the character of the intended use of the site. However, native woody species and fruit-bearing species will also be planted in these beds, such as hawthorn, dogwood, elder, wild cherry, holly, and crab apple. Care will be taken to avoid undesirable invasive species in any plantings and the stands of wall cotoneaster will be removed using appropriate methods (see relevant section below).

Scattered Trees

- 2.15 Three trees will be lost in the south and west of the site. However, the majority of trees are to be retained and 11 new trees will be planted around the grounds. These new tree plantings will be predominantly native species of local provenance, such as pedunculate oak, silver birch, crab apple, rowan and wild cherry.

Artificial Habitat Features

- 2.16 The building has been assessed to have Low potential to support roosting bats and there are recommendations for bat activity survey to ascertain presence/likely absence of roosts on the structure. Regardless of the outcome of follow-up survey, the following artificial nest/roost box features are recommended as ecological enhancement to the site:

Two Bat Roosting Boxes

- 2.17 Two (2no) bat roosting boxes will be installed on the site. These are to be provided as enhancement rather than mitigating for any significant loss of roosting potential post-development. Therefore, to keep the design flexible, the two bat boxes may be installed either on trees or on the structure (or a combination of both).

- 2.18 Tree boxes should be suitable for pipistrelle species (*Pipistrellus sp.*) and follow similar specification as, for example, the NHBS flatpack double chamber bat box⁵ or similar. They should be installed at a height of 3 to 6m.
- 2.19 Boxes on the building should avoid being placed near to security lighting and away from street lighting as far as practically possible. The bat boxes should be suitable for pipistrelle species, for example, Beaumaris Woodstone bat box⁶ or similar. Integrated bat boxes that can blend seamlessly into the design of the building can also be considered, however, these would require works to the brickwork itself and may not be practical, depending on the scope of works.
- 2.20 All boxes should be installed at the post-development phase. Final locations and installation should be completed following the advice of a professional ecologist. Once installed these should be left *in situ*.
- 2.21 Depending on the findings of any further bat activity survey, further mitigation may be required for any impacts on bat roosts as a result of the development. These would be a condition under the provisions of a Natural Resources Wales Protected Species Licence, if necessary.

Three Generalist Bird Nesting Boxes

- 2.22 Three (3no) bird nesting boxes will be installed at 2m to 4m height (3 to 4m optimal), either directly on the structure or on existing trees of sufficient size in the south and east of the site. These will be installed at the post-development phase.
- 2.23 The generalist bird boxes should be suitable for the IUCN⁷ Red Listed house sparrow (*Passer domesticus*) (as listed in BoCC^{8 9}) but may also be used by other small passerines such as tits and finches. For example, the NHBS sparrow nest box system¹⁰ or similar.
- 2.24 Final locations and installation should be completed following the advice of a professional ecologist. Once installed these should be left *in situ*.

Invasive Non-Native Species Removal

- 2.25 Methods will be implemented to remove the stands of wall cotoneaster in the west of the site (Target Note 1, Figure 1). This should involve professional removal by a registered waste carrier and disposal at a specially licenced waste disposal facility.

Personnel and Management/Maintenance Requirements

- 2.26 Delivery of the BEP will be ensured through the nomination of a biodiversity champion for the site. This should be nominated by the main contractor. The biodiversity champion will then liaise

⁵ <https://www.nhbs.com/flatpack-double-chamber-bat-box>

⁶ www.nhbs.com/beaumaris-woodstone-bat-box

⁷ International Union for Conservation of Nature

⁸ Birds of Conservation Concern

⁹ Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. 2021. Birds of Conservation Concern 5: The Status of All Regularly Occurring Birds in the UK, Channel Islands and Isle of Man. *British Birds*. **114**: 723-747.

¹⁰ www.nhbs.com/sparrow-nest-box-system

with an ecologist as necessary to ensure the BEP is implemented correctly and in the event of any unforeseen wildlife issues arising as a result of development.

- 2.27 There are no plans for long-term monitoring of enhancement features. Detailed monitoring of roost/nest boxes is not recommended due to the sensitive and protected nature of the species for which they are intended.
- 2.28 All boxes should remain undisturbed unless maintenance is required.
- 2.29 For the first five years, the owner/occupier (or biodiversity champion) should complete ground level observations of all boxes each year to assess for signs of damage and ensure access points are unobstructed. This should be done unobtrusively, using binoculars from the ground. If signs of damage are found then an ecologist should be contacted to advise on suitable maintenance or replacement, particularly in the case of bat boxes which should only be repaired/replaced following a check by a licenced bat ecologist to avoid risk of harm or disturbance to bats.

3. CONCLUSIONS

- 3.1 The proposed development of Maes Y Capel will be entirely contained within an area constrained by the size of the already present built structure, the limited extent of the habitats within the site, and its suburban immediate surroundings. The proposed biodiversity enhancement recommendations take these limitations into consideration, offering relatively straightforward enhancements that should be simple to implement and manage.
- 3.2 As the site, pre-development, is of limited ecological value, these recommendations should provide notable and demonstrable ecological enhancements for the site, while allowing the objectives of the development to be fully realised.

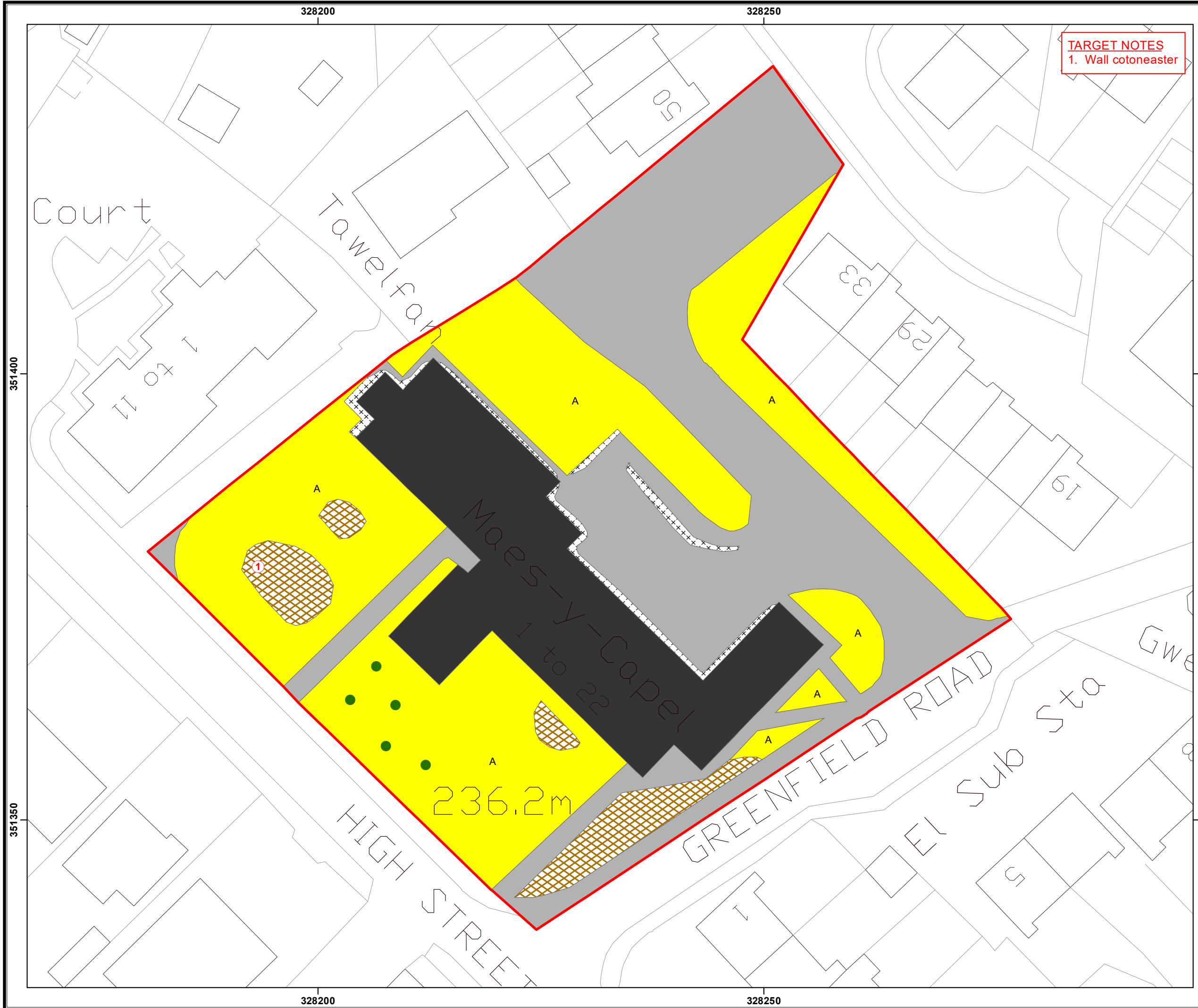
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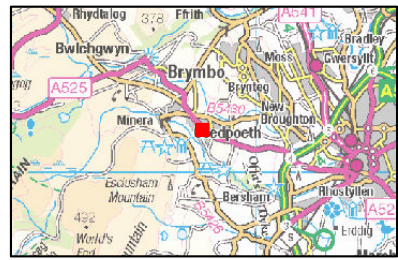
5. ABBREVIATIONS

BEP	Biodiversity Enhancement Plan
CRoW	Countryside and Rights of Way
EU	European Union
INNS	Invasive Non-Native Species
NERC	Natural Environment and Rural Communities
PAA	Penny Anderson Associates Ltd
PEA	Preliminary Ecological Appraisal
PPW	Planning Policy Wales
PRA	Preliminary Roost Assessment
SMNR	Sustainable Management of Natural Resources
SSSI	Site(s) of Special Scientific Interest
TANs	Technical Advice Notes
WCA	Wildlife and Countryside Act

FIGURES



TARGET NOTES
1. Wall cotoneaster



Legend

- Survey area
- Phase 1 Habitats**
- J1.2, Amenity grassland
- J1.3, Ephemeral/short perennial (over hardstanding)
- J1.4, Introduced shrub
- J3.6, Building
- J5, Hardstanding
- Scattered trees
- Target note

British National Grid
Projection: Transverse Mercator
False Easting: 400000.000000
False Northing: -100000.000000
Central Meridian: 2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

0 2.5 5 10 15 Metres



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Project Name
Maes-y-Capel

Discipline
Ecology

Title:
**PRELIMINARY
ECOLOGICAL
ASSESSMENT MAP**

Scale: **1:400**

Drawn By: **CC** | Originator: **RL** | Date: **16/01/2023**

Grid Ref.: **328,233 351,385** | Revision: **1.0**

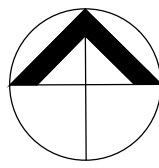
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NOTES				
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Rev	Date	Notes	By	Chk
P0	28.01.22	First Issue	NH	DG
P1	02.03.22	Revised layout	NH	DG
P2	13.05.22	Planning	NH	DG
P3	31.08.22	Revised Planning	NH	DG

KEY

- Existing vehicular grade macadam
- Pedestrian grade macadam
- Resin bound gravel
- Grass
- Ornamental shrub beds into min 350mm depth topsoil
- Mixed native species hedge into min 350mm depth topsoil
- Refurbished shrub beds with new planting
- Existing trees retained and protected
- Tree to be removed
- New trees 16 - 18cm girth
- Existing boundary fencing
- Existing gates
- New gates
- Low brick walls



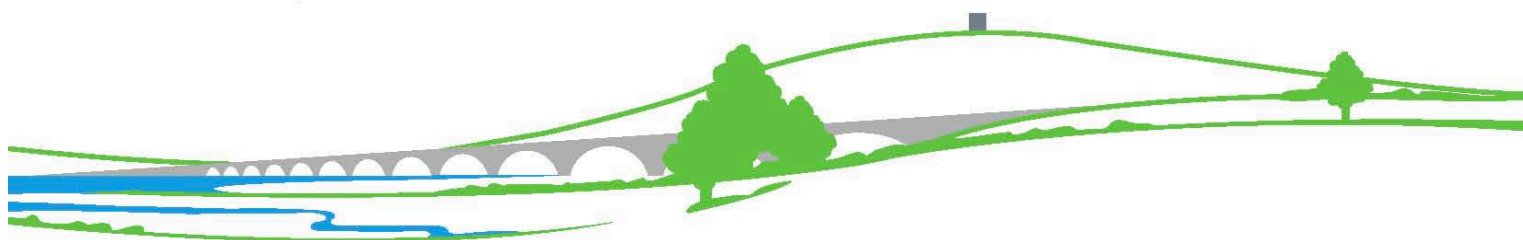
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