

BERNWOOD ECOLOGY

☎ 01296 728351 · ✉ enquiries@bernwood.net · 🌐 www.bernwood.net

Adstock Fields Farm Adstock Buckinghamshire



Landscape and Ecological Management Plan

Jo Nicholson

4th August 2023

Nicholson-AFFD-23.001 (Issue 1.2)



Proud to be:



Hensmans Farm, Narton End, Swanbourne, Buckinghamshire, MK17 0SL

Limitations

Ecological assessments can only assess a site at a particular time. This evidence can be used to draw conclusions as to the likely presence or absence of species (animals and plants), population size, use of the site by animals; it is neither definitive nor complete. Any survey is a snapshot in time and should not be regarded as definitive nor complete study.

The preparation of mitigation strategies, consultation exercise and submission of any licence applications cannot be relied upon until approved [licensed] in writing by the Statutory Nature Conservation Organisation. Allowance must be made for both programme and financial change to projects as a result of application failure, amendment or refusal.

Every professional effort and due diligence have been applied to provide an accurate ecological assessment of the site at the time of the preparation of this report, but no liability can be assumed for omissions, or subsequent changes to design and development. Additional works should be anticipated as surveys and proposals for the site progress.

No responsibility will be accepted for any use of or reliance on the contents of this report by any third party. No responsibility will be accepted for changes or alterations made to this report following submission to Bernwood Ecology client.

Bernwood Ecology, its employees and associates reserve the right to report on any incidents or actions [deliberate or reckless] that result in a breach of licence conditions or are in contravention of existing legislation.

Quality Assurance

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Author: M. Davis, BSc. CIEEM Qualifying Member, Assistant Ecologist

Proof-Reader: C. Damant, MCIEEM, Principal Ecologist

Executive Summary

Bernwood Ecology have been instructed to produce a Landscape and Ecological Management Plan for the erection of the proposed distillery building at Adstock Fields Farm, Adstock, Buckinghamshire.

The aim of the Landscape and Ecological Management Plan is to provide details and specifications for the management of habitats and other features of biodiversity interest for a thirty-year period conditioned through planning.

The main areas created/retained and managed include; Developed Land; Sealed Surface, Modified Grassland, Traditional Orchard and a Native Hedgerow, as well as two bat boxes and three sparrow nest boxes. The creation and management of these areas is to ensure they achieve the target conditions specified in the Biodiversity Net Gain calculator.

The habitats created and the Landscape and Ecological Management Plan will be subject to a five and ten-year review to ensure the conditions specified are being met. This will allow any remedial measures needed to take place.

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1. Introduction and Objectives

- 1.1 Bernwood Ecology were instructed by Jo Nicholson to complete a Landscape and Ecological Management Plan (LEMP) for the erection of the proposed distillery building, with an associated hardstanding apron at Adstock Fields Farm, Adstock, Buckinghamshire (Appendices 1-3).
- 1.2 The purpose of an LEMP is to provide details and specifications for the management of habitats and other features of biodiversity interest (CIEEM, 2017).

2. Legal Protection

- 2.1 The finding of this report represents the professional opinion of qualified ecologists and does not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this report.
- 2.2 The following information is a simplified summary of the legislation and the full text of the Wildlife & Countryside Act 1981 (as amended) (WCA 1981), the Conservation of Habitats and Species Regulations 2017 (2017 Regulations) and other legislation together with current published guidelines should be consulted.

European Protected Species

- 2.3 It is understood that 2017 Regulations will be further amended due to the departure of the UK from the EU on 31st January 2020. From that date the provisions in The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 will apply (see <https://www.legislation.gov.uk/ukxi/2019/579/contents/made>). Existing protection for habitats and species including standards and assessment procedures will remain as they have been prior to the UK leaving the EU.
- 2.4 The 2017 Regulations and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 should be read together until further clarification or changes are made available by the UK Government or legal case law.

3. Purpose

- 3.1 The purpose of the LEMP is to outline retained, enhanced and newly created habitats and ecological features of high importance identified within the *Biodiversity Net Gain Assessment Report* (issued by Bernwood Ecology, issue number: 1.3, issued: 4th August 2023) It will also set out a methodology for habitat establishment and strategies for their management and maintenance for the next five years. The report is informed by previous ecological surveys that have identified species of interest, habitat types and measures that would benefit the overall biodiversity of the site.

3.2 This LEMP has been produced in accordance with the British Standard for Biodiversity, BS 42020:2013. The LEMP details the following information:

- Existing ecology interest on site
- Management proposals
- Implementation, monitoring and review

3.3 This document is a live document and may therefore be subject to review based on the findings of monitoring of the success of the initial management. An updated LEMP may be issued based on the results of monitoring and in accordance with the best practice principles available at the time.

4. Existing Ecological Considerations

Habitats

4.1 A Biodiversity Net Gain Assessment using the DEFRA 3.1 metric was conducted by Bernwood Ecology at the site in 2023 (see Bernwood Ecology's *Biodiversity Net Gain Assessment Report*, issued: 4th August 2023, issue 1.3).

4.2 Based on the Biodiversity Net Gain distinctiveness score, the existing habitats on site have been classified as having:

- Negligible ecological value:
 - Developed Land; Sealed Surface (1.58ha)
 - Vacant/derelict land/ bareground (0.08ha)
- Low ecological value:
 - Modified Grassland (0.01ha)

5. Aims and Objectives of Habitat Creation and Management

5.1 The consented development provides opportunities to create areas of new habitats proportional to the impacts and size of the site, with the aim to deliver an overall enhancement to biodiversity within the site which is maintained under a planning condition obligation for thirty years.

6. Responsibilities for LEMP Implementation

6.1 A copy of this LEMP and the NLMS is to be retained on site at all times. It must be followed by any parties (including contractors) working to create or manage the habitats.

6.2 The ultimate responsibility for the works to comply with the LEMP and environmental legislation remains with the Client; Jo Nicholson. The Client can appoint a contractor to undertake the management works if they wish to do so. The clients and/or any

contractors working to deliver the project, must uphold the recommendations within the LEMP, environmental legislation.

- 6.3 Should the ownership of the site be transferred within the lifetime of the LEMP, all responsibilities for the planning condition implementation for the LEMP must be transferred to the new owner through an appropriate covenant.

7. Descriptions and Evaluations of Features to be Managed

- 7.1 The table below (Table 1) outlines the habitats and faunal enhancements to be created/ retained, their condition and any future management plans. These are guided by the Biodiversity Net Gain calculations and associated target conditions and criteria (Panks et al., 2021a & 2021b). The baseline habitats and proposed habitats can be seen in Appendices 4 and 5. Furthermore, five faunal enhancement features (in the form of bird and bat boxes) will be installed onto the building and nearby mature trees and secured for the lifetime of the development. A plan to show the placement of these bird boxes can be seen in Appendix 6.

Table 1. Habitats to be created, enhanced or retained, their condition and future management plans.

Habitat	Created/ Retained	Areas required	Minimum Target Condition ¹	Creation Method	Establishment	Annual Management Over a 30-Year Period
Traditional Orchard	Created Offsite	814m ²	Moderate – Less than 5% of fruit trees are to be smothered by scrub. There is evidence of formative pruning. At least 95% of the trees are free from damage caused by humans or animals. There must be an absence of invasive non-native species and species indicative of sub-optimal condition must make up less than 10% of ground cover.	Planting of native fruit trees is to be undertaken, avoiding waterlogged or frozen soil. Tree guards are to be used to prevent any damage to the tree. No compost or fertiliser is to be incorporated on areas of grassland.	A one-metre diameter area around each tree will be kept free from undesirable weeds for the first 3 years after planting. The tree guards are to be kept free from damage and effectively preventing the tree from pest damage. The trees are not to be overwatered to ensure roots are growing towards groundwater. If any tree has failed during the first three years after planting it must be replaced.	The trees are not to be pruned or managed, unless necessary for health and safety concerns, to allow it to grow naturally. Where safe to do so, any deadwood will be retained in situ to provide microhabitats for wildlife. Vegetation is to be strimmed once a year, with cuttings removed from site. The base of the trees will be mulched once a year to suppress weed growth, this will be topped up annually.
Native Hedgerow	Created Offsite	46m (upon 90m ² of modified grassland)	Poor – Fails more than four attributes on the condition assessment. Meets the UKHabs definition for native hedgerow.	The trees are to be planted between November–March when trees can be moved without damaging their roots. Planting should be avoided in very cold or windy weather to reduce the risk of damage to the new roots, and they should never be planted in waterlogged or frozen soil. Biodegradable/plastic tree guards should be used and in the case of the latter being used they should be removed after three years. Before planting the site should be prepared to accept the trees. All weeds and roots should be removed and mix in plenty of manure and organic matter to provide the new hedge with lots of food. Two parallel lines (about 20cm apart) should be marked, along the line of the new hedgerow and any grass and vegetation between the two lines should be cleared. The trees and shrubs should be planted to create a zig-zag pattern. A mulch of chopped bark placed along the edge of the new hedgerow will lessen the number of weeds and reduce moisture loss.	In the first spring after planting the shrubs are to be cut down to 45–60cm above the ground, to allow them to bush out create a thick hedge. During the first summer weeding around the base of the shrubs is to take place. This will prevent competition from grasses and other plants. If in late summer some trees and shrubs have died, they are to be replaced with new shrubs between November and March (up to five years after planting).	After establishment the hedgerow will need long-term management. No cutting should take place during peak bird nesting season (March–September). Where possible, delay any maintenance work until January or February, as hedgerow berries provide a valuable autumn and winter food source for birds. Hedge trimming is to take place on a two or three year rotation, targeting different sections each year, to make sure there are always flowers for pollinators in spring and berries for birds in autumn. A flail may be the most efficient way to cut the hedge, however, a circular saw creates a cleaner cut, which encourages better re-growth and is less likely to encourage disease. If using a flail, ensure the flail is kept sharp for an effective cut. The hedge will be trimmed to an 'A' shape: thicker at the base and narrower at the top. This provides maximum protection for wildlife, while allowing light to reach the ground flora.

Table 1. Habitats to be created, enhanced or retained, their condition and future management plans.

Habitat	Created/ Retained	Areas required	Minimum Target Condition ¹	Creation Method	Establishment	Annual Management Over a 30-Year Period
Bird and bat boxes	Created	N/A	N/A	Three double chamber Vivara Pro WoodStone House Sparrow Nest Boxes are to be installed either into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs. Two Schwegler 1FF bat boxes are to be installed in the woodland to the south-west of the proposed distiller, on appropriate mature trees.	The boxes are to be positioned at a minimum of 2m above the ground. The boxes are to be maintained for the 30 year period.	Any vegetation growth obscuring the boxes must be trimmed to allow free access for birds and bats into the boxes. If the boxes become damaged or ineffective due to deterioration they must be replaced with the same or similar product.

¹Based on the Biodiversity Net Gain Assessment (see Bernwood Ecology's *Biodiversity Net Gain Assessment*, issued: 4th August 2023, Issue 1.2)

8. Work Schedule

	INITIAL MANAGEMENT OPERATIONS MATRIX											
	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Orchard												
Trees to be planted, avoiding frost or waterlogged ground.												
Vegetation to be strimmed and ground to be mulched once a year.												
Native Hedgerow												
Trees are to be planted, avoiding very cold or windy weather.												
In the first year after planting, shrubs are to be cut down to 45—60cm above the ground.												
Monitoring and review												
Monitoring of habitat creation (on years 1, 3, 10 and 20 post-creation)												
Review LEMP (soon after monitoring visit on year 3 post-creation)												

Key:

	Period of which management action is to be undertaken during.
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9. Monitoring and Remedial Measures

- 9.1 To ensure the aims and objectives of the LEMP are being met, monitoring of the created and retained habitats and a review of the LEMP will be implemented as detailed below.
- 9.2 The created and retained habitats will be subject to monitoring by an appropriately experienced ecologist during the first (1 year after planting), third, tenth and twentieth year post-establishment. This LEMP is to be reviewed shortly after the monitoring visit on the third-year post-implementation of the BNG enhancements. Any necessary remedial measures will be identified to the Client (Jo Nicholson) and they will need to be addressed and implemented to ensure establishment of the created habitats within the 30-year period of the LEMP.

10. Funding Resources and Mechanisms

- 10.1 The creation and management of the habitats, including monitoring and remedial actions is to be privately funded by the Client (Jo Nicholson) and conditioned through planning.

11. Conclusions

- 11.1 This report sets out the ecological elements of a Landscape and Ecological Management Plan to be conditioned through planning.
- 11.2 All the habitats created/retained are outlined in this report and their thirty-year management is also outlined. All measures mentioned in this report in addition to the measures detailed in the '*Biodiversity Net Gain Assessment Report*' (Bernwood Ecology, issue: 1.2 Issued 4th August 2023) are to be followed.
- 11.3 Development of the site presents an opportunity to enhance its ecological value, whilst safeguarding any existing ecological interest where possible, and providing landscape benefits.
- 11.4 The implementation of the measures set out within this report will enhance biodiversity within the site for the next 30 years.

12. References and Further Reading

BSI (2012). Trees in relation to design, demolition and construction—Recommendations (BS 5837:2012). British Standards Institution.

BSI (2013). Biodiversity—Code of practice for planning and development (BS 42020:2013). British Standards Institution.

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CIEEM (2021). Good Practice Guidance for Habitats and Species. [online]
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Natural England (2021a). The Biodiversity Metric 3.0: Calculation Tool: Short Guide. Natural England.

Natural England (2021b). Protected species and site: How to review planning proposals. [online] <https://www.gov.uk/guidance/protected-species-and-sites-how-to-review-planning-proposals>

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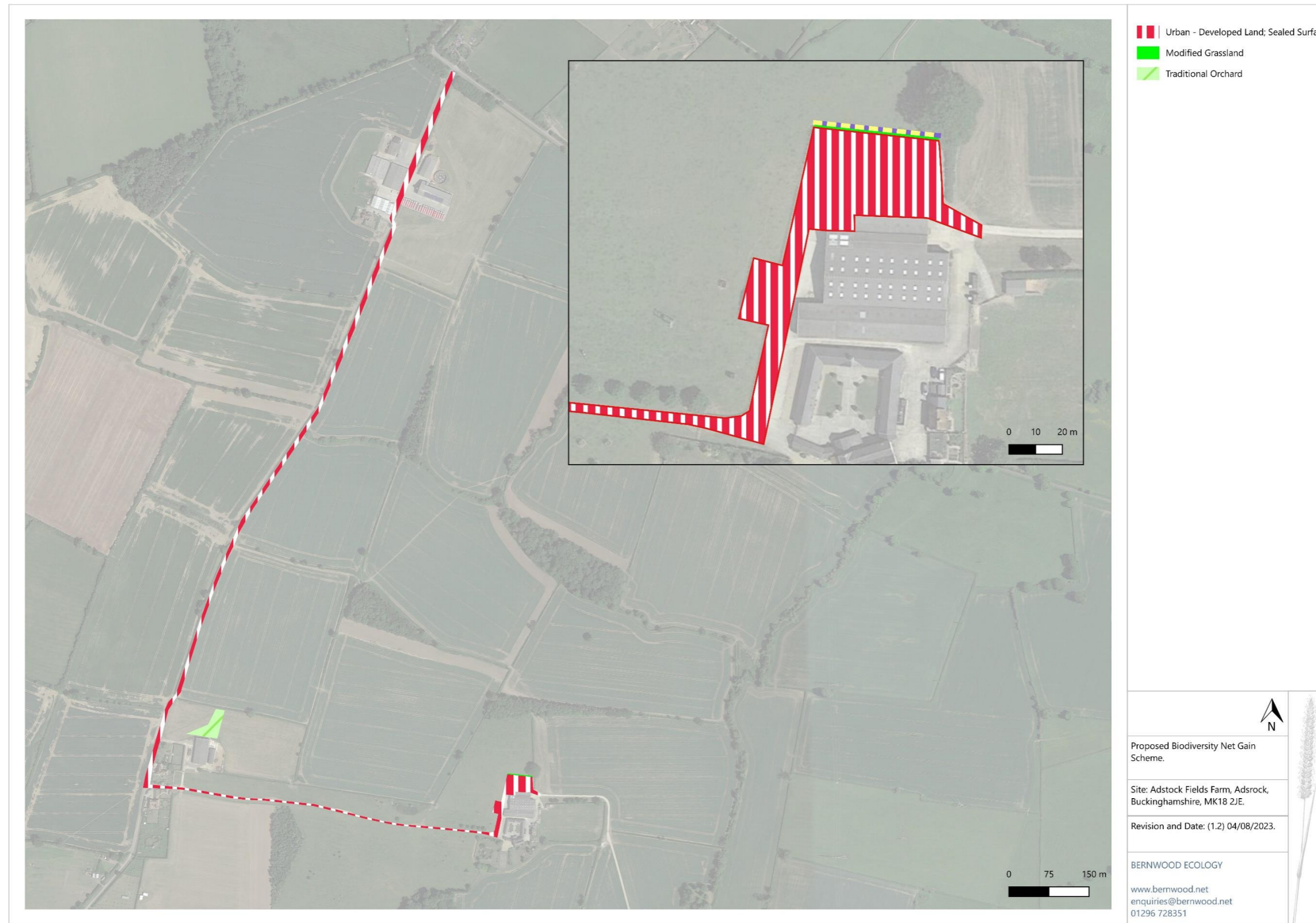
Appendix 1. Site location in relation to existing landscape.



Appendix 2. Existing site layout.



Appendix 3. Proposal details.





Appendix 6. Swift Nest Box and Bat Box placement plans.



