North West Cambridge Masterplan

Biodiversity Net Gain Report

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This report has been prepared on behalf of:

University of Cambridge

By:

Mike Dean

MD Ecology Limited
(7545616)

www.mdecology.co.uk
Email: mike@mdecology.co.uk

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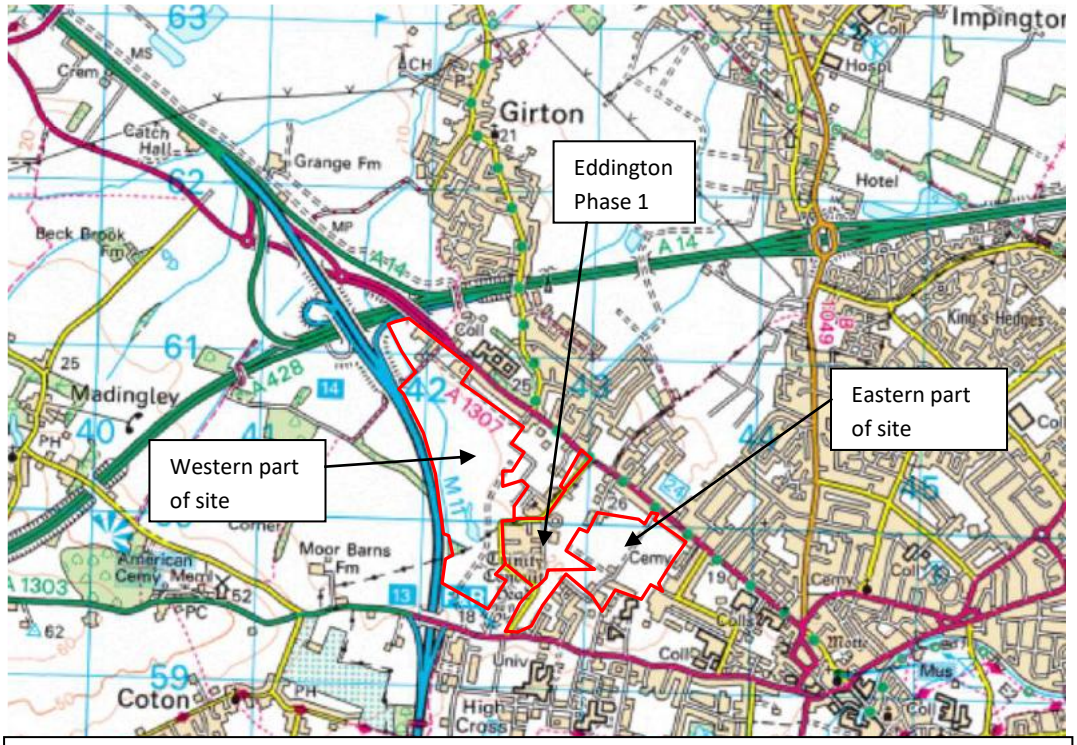
1. Introduction

1.1 Scope and purpose

1.1.1 This report has been prepared by Mike Dean of MD Ecology Limited, on behalf of the University of Cambridge. It provides details of the assessment of predicted Biodiversity Net Gain (BNG) for the North West Cambridge Masterplan proposed development, and is intended to accompany the 2025 Outline Planning Application. The site is located between Huntingdon Road, Madingley Road and the M11 Motorway and is a former university farm. Phase 1 of the Eddington development has been constructed and future development areas are located to the east and west of Eddington. The location of the site is shown in Figure 1.

1.1.2 This report should be read in conjunction with the completed version of the statutory biodiversity metric calculation tool (version 5, dated 6 March 2026), which has been downloaded from gov.uk (latest version available, dated 23/7/2024). It has been updated to take account of comments from the Greater Cambridge Shared Planning Service's (GCSPS) Ecology Officer, issued 18 December 2025 in relation to a previous version of the metric and report.

Figure 1: Site Location Plan



1.1.3 In summary, the following elements of the assessment have been changed since the September 2025 version submitted the planning application:

- The size category of proposed trees to be planted has been amended (see paragraph 2.2.3);
- The strategic significance scores have been amended (see Section 2.3)

1.1.4 The BNG outcomes presented here are a prediction only to demonstrate how the proposed development could deliver the 10% BNG required under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Actual BNG gains will need to be calculated as future phases of the development progress and as on-site habitat enhancements are delivered.

1.2 Background to the assessment

1.2.1 In broad terms, the site comprises:

- Temporary construction areas, to the west of Phase 1 of the Eddington development, including areas of hard standing used as car parks or formerly used as construction site compounds, surfaced haul roads, temporary ponds, and associated areas dominated by scrub or weeds;
- Former agricultural land in the eastern part of the site, with farm buildings now in use as offices and for storage, areas of woodland and the Horse Chestnut Avenue; and
- Former agricultural land, the Washpit Brook and associated wetland habitats (created as part of Phase 1 of the development), including the attenuation lagoon at Brook Leys, and a farm research centre with buildings and fields grazed by livestock in the western part of the site.

1.2.2 The site's location is on Land Between Huntingdon Road, Madingley Road and M11, Eddington, North West Cambridge, Cambridgeshire. The Ordnance Survey grid reference for the approximate centre of the western part of the site is TL422606, and for the eastern part of the site is TL433597.

1.2.3 The majority of Phase 1 of the Eddington development in the centre of the site, which has been completed and now forms a residential area with associated landscaping, has been excluded from the site boundary.

1.2.4 The 2025 Outline Planning Application (all matters reserved except for means of access to the public highway) is for a phased mixed use development, including demolition of existing buildings and structures, such development comprising:

- Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), Co-living (Sui Generis) and Senior Living (Class C2);
- Flexible Employment Floorspace (Class E(g) / Sui Generis research uses);

- Academic Floorspace (Class F1); and
- Floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) – E (f)).
- Public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities;
- Car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the site;
- Highway works;
- Site clearance, preparation and enabling works;
- Supporting infrastructure, plant, drainage, utility, earthworks and engineering works.

1.2.5 The proposed development will be constructed in phases, currently proposed to commence in 2027 with completion in 2037.

1.2.6 The pre-development baseline for the assessment is the site condition in 2025, and has been taken from the results of the following field surveys and associated reports:

- A habitat survey of the site undertaken on 26 and 27 June 2024 with each habitat classified according to the UK Habitat Classification (UKHAB)[1] – the results are provided in a separate report (MD Ecology 2024[2]);
- A detailed hedgerow assessment undertaken in parallel with the habitat survey, with the results also provided in MD Ecology (2024); and
- A River Condition Assessment undertaken on 3 and 4 October 2024 – the results are provided in a separate report (MKA Ecology 2024[3]).

1.3 Personnel

1.3.1 The BNG assessment has been undertaken by Mike Dean. Mike has more than 25 years experience as an ecological consultant. He is a Fellow member of the Chartered Institute of Ecology and Environmental Management (CIEEM), a Chartered Ecologist and a Chartered Environmentalist. He is the Project Ecologist for Eddington / North West Cambridge and undertook the ecological impact assessment in the 2012 ES for the current outline planning permission.

[1] https://ukhab.org/

[2] MD Ecology (2024). Eddington, Cambridge: Habitat, Plant and Invertebrate Survey. December 2024.

[3] MKA Ecology (2024). Washpit Brook River Condition Assessment. Baseline Report. December 2024, Version 2.0.

2. Assessment Methods

2.1 Baseline

2.1.1 The on-site habitat and hedgerow baseline has been based on the results of the habitat survey and detailed hedgerow assessment of the site undertaken on 26 and 27 June 2024. Habitats are shown on Figures 3 and 4a-4d inclusive; hedgerows are shown on Figure 5. In some cases habitats have been mapped, and shown on the figures, that are outside of the current site boundary. This is due to uncertainties over the site boundary at the time that the surveys were undertaken; they have not been removed from the figures as this was considered more likely to lead to errors in the calculations.

2.1.2 The on-site watercourse baseline has been based on the results of the River Condition Assessment undertaken on 3 and 4 October 2024.

2.2 Post-development

2.2.1 On-site habitat and hedgerow creation has been based on the latest landscape design (Grant Associates' BNG Strategy Landscape Proposals Plan NEP718-GRA-SK-052, rev 08).

2.2.2 Areas identified as proposed woodland on the Grant Associates' BNG Strategy Landscape Proposals Plan NEP718-GRA-SK-052, rev 08 have been included in the assessment as mixed scrub, with the exception of the small area immediately adjacent to the existing Cricket Pitch Wood, which has been included as woodland.

2.2.3 The Proposed Tree Planting Strategy has been used to calculate the number of individual trees to be included in the assessment. The numbers of trees in each size category have been provided by Grant Associates. It has been assumed that Forest scale and Landmark trees will achieve 'medium' size, Junction and Street trees will achieve 'small' size and Standard and Multi-stem trees will achieve 'small' size within the 30 year timeframe. Trees being planted within an area proposed for woodland planting, adjacent to the existing Cricket Pitch Wood) have been excluded but all others have been included; this includes trees being planted within areas of scrub (much of which is identified as proposed woodland on the landscape drawings).

2.2.4 Where hedgerows have been shown on the landscape design, these have been included in the habitat assessment as 1.5m wide lines of mixed scrub (hedgerow type 1) or 1m wide lines of mixed scrub (hedgerow type 2), as they will occupy an area as well as being a linear habitat in their own right.

2.2.5 Delay in starting habitat creation for on-site habitat creation has been assumed to be:

- 3 years for areas within development plots; and
- 1 year for areas outside of development plots where timescales will be less constrained.

2.2.6 On-site habitat enhancements have been proposed where feasible. Given the proposed phasing of the development it is likely that some of these enhancements will be delivered several years in advance of development works. The number of years in advance has been averaged across the entire site, based on the relative size of each phase of the development. The average number of years in advance for habitat enhancements has been calculated to be 3. This approach was discussed and agreed with Greater Cambridge Shared Planning's Biodiversity Officer, Guy Belcher, at a meeting on 5 February 2025.

2.3 Strategic significance

2.3.1 The Local Nature Recovery Strategy for Cambridgeshire and Peterborough[4] (the LNRS) and Cambridge City Council's Biodiversity Strategy 2022-2030[5] have been reviewed to determine the priority habitat types in Cambridge and therefore inform the assessment of 'strategic significance'. These include the following habitat types of relevance in the context of this assessment:

- Grassland – lowland meadow;
- Woodland – lowland mixed deciduous woodland;
- Hedgerows / scrub – native hedgerows;
- Wetland – reedbed, ponds and rivers.

2.3.2 These habitats have been scored as medium in terms of the strategic significance assessment.

2.3.3 The LNRS also includes action **U2B** – increase the urban tree canopy by planting native and climate resilient trees in streets, parks and other open spaces to provide habitat reduce urban heat island effects, and improve air quality. High strategic significance has therefore been applied to the proposed trees, with the exception of the Forest scale trees and Landmark trees as these will be non-native species.

2.3.4 The LNRS also includes the following:

U1 - enhance greenspaces in urban and rural areas to increase access to nature, foster improved health and wellbeing, and improve the resilience of people and nature to climate change.

U2 - create new natural greenspaces in urban areas to provide environmental benefits such as improved air quality, climate change resilience, and greater health and wellbeing for residents.

[4] Local Nature Recovery Strategy for Cambridgeshire and Peterborough. Statement of Biodiversity Priorities. Part Two: Priorities and Action. https://naturalcambridgeshire.org.uk/wp-content/uploads/2025/12/LNRS-for-CPCA_Part-2_Dec2025_Final.pdf

[5] https://www.cambridge.gov.uk/media/11066/biodiversity-strategy.pdf

U2A - create new natural greenspaces prioritising areas at most risk of health impacts (as identified by the Environmental Justice Index). New natural greenspaces would be of a minimum 0.5 hectares in size, with larger sites preferable, to contribute to natural greenspace accessibility standards.

2.3.5 As a result high strategic significance has been applied to:

- Enhancement of any habitat within Brook Leys
- New woodland planting (other woodland, broadleaved)
- All proposed new habitats within the extensive area of greenspace that will be created to the north of Brook Leys, between the built development and the M11 (Zone 3a and the western edge of Zone 4).

2.3.6 This approach has been agreed with the GCSPS's Ecology Officer.

3. Results of the 2025 Assessment

3.1 Habitats

3.1.1 The majority of habitats present within Zones 2, 4, 5c, 5d and 6c will be lost. There will be some new landscaping alongside built development, but an overall loss in terms of biodiversity units in these zones.

3.1.2 The parts of the Phase 1 development that are included within the red line are largely being retained and/or enhanced (Zones 3b, 3c, 5a, 5b and 5e). Similarly, the habitats within Zones 6a and 6b will be largely retained and/or enhanced. The land within Zone 3a will be re-landscaped to provide more valuable habitats. These areas will deliver an overall gain in terms of biodiversity units. Further details are provided in Appendix 1.

3.1.3 Zones 1 and 7 cover Huntingdon Road and Madingley Road respectively, where there is very little impact on existing habitats and no real opportunities for any gains.

3.1.4 The overall predicted BNG score for habitats is a **gain of 15.72%**.

3.1.5 An earlier version of the assessment (version 1, dated 31 January 2025) was shared and discussed with Guy Belcher (Greater Cambridge Shared Planning's Biodiversity Officer) in February 2025. This version predicted a 12% gain. The improvement in predicted score is due to several factors:

- The overall site area is approximately 18ha smaller in the latest version, as several completed parts of Phase 1 have been removed – as a result, the habitat enhancements and habitat creation make up a larger proportion of the site;
- Further landscape design work has allowed greater certainty over the habitat creation elements – the amount of habitat creation proposed has increased relative to site area;
- A strategic significance multiplier has been applied, as discussed in Section 2.3 – this had not been applied on the previous version.

3.1.6 The earlier version of the assessment (version 1, dated 31 January 2025) also highlighted that insufficient grassland was being created to meet all of the BNG trading rules. This trading rule has been met under the current assessment, most likely due to the reduced site area and therefore reduced amount of grassland habitat included in the baseline.

3.1.7 Version 3 of the assessment, submitted with the planning application, predicted a gain of 18.7%. This has been reduced based on comments received from the GCSPS's Ecology Officer, issued 18 December 2025 and the response to those comments.

3.2 Hedgerows

3.2.1 Five of the hedgerows included on Figure 5 are outside the current red line boundary and have therefore been excluded from the assessment (H13, H14, H15, H16 and H17).

3.2.2 Five hedgerows/lines of trees will be lost as a result of the proposed development: H3, H4, H8, H25 and H31. Hedgerow H6 will be retained although a 10m gap is assumed to allow construction of pedestrian/cycle access through it. The line of trees on the west side of Horse Chestnut Avenue (H27) will be retained although the existing gap on the ridgeway will be widened by 10m to allow construction of vehicular access. All other hedgerows and lines of trees will be retained.

3.2.3 Enhancement is proposed of one feature: H5, an ecologically valuable line of trees alongside the Washpit Brook in the northern part of the site. This will be achieved by removing farming from the adjacent field and protecting a 6m strip alongside the trees; a 10m strip alongside the watercourse has been protected as part of the masterplan, which will therefore also protect the trees and deliver the enhancement required.

3.2.4 The calculation of on-site hedge creation has been based on Grant Associates' BNG Strategy Landscape Proposals Plan NEP718-GRA-SK-052, rev 08. Only hedgerows identified as 'Hedgerow 1' on the plan have been included, as these are proposed for native species-rich hedgerows. Those identified as 'Hedgerow 2' have not been included as on-site hedgerow creation in the BNG calculation, as they are generally more fragmented and located within urban locations, and therefore less likely to function as a linear hedgerow.

3.2.5 The overall predicted BNG score for hedgerows is a **gain of 50.39%.**

3.2.6 The earlier version of the assessment (version 1, dated 31 January 2025) predicted a 22% gain. The improvement in predicted score is due to the same factors as discussed for habitats. More hedgerow planting is proposed than was included in version 1, and the strategic significance multiplier will also have benefitted the hedgerow score in particular.

3.3 Watercourses

3.3.1 The proposed development has been designed to protect the Washpit Brook, including the 10m riparian zone. No new culverts or bridges are required.

3.3.2 The proposed development will deliver a benefit in terms of encroachment to the northernmost section of the Washpit Brook, as there is currently livestock grazing in the riparian zone, which will be removed from the eastern side of the brook.

3.3.3 The calculation of the post-development situation has also assumed that:

- Two culverts will be removed – one below an old farm track at the north-west corner of the Park and Ride, and one below the temporary haul road; and
- The enhancements will be delivered in terms of watercourse condition to sub-reaches 8, 9 and 12, with the condition score improved from fairly poor to moderate.

3.3.4 For sub-reach 8 this would be achieved by improving:

- Bank top vegetation structure (B1)
- Bank face riparian vegetation structure (C1)
- Bank top managed ground cover (B5)

3.3.5 For sub-reach 9 this would be achieved by improving:

- Bank top vegetation structure (B1)
- Bank top tree feature richness (B2)

3.3.6 For sub-reach 12 this would be achieved by improving:

- Bank top vegetation structure (B1)
- Bank top managed ground cover (B5)
- Bank top tree feature richness (B2)

3.3.7 The overall predicted BNG score for watercourses is a **gain of 21.28%.**

3.3.8 The earlier version of the assessment (version 1, dated 31 January 2025) predicted a 14% gain. The watercourse score has not been affected by the change in site area, and no new watercourse habitat is proposed. The improvement in predicted score is therefore due to the application of the strategic significance multiplier and that the habitat would be enhanced in advance by 3 years on average.

3.4 Overall summary and conclusion

3.4.1 An overall summary of the current predicted outcomes of the BNG assessment (based on version 2 of the statutory biodiversity metric calculation tool, dated 23 May 2025) is set out in Table 1 below.

3.4.2 This is based on the detailed design of development plots and landscaping following the latest landscape design (Grant Associates' BNG Strategy Landscape Proposals Plan NEP718-GRA-SK-052, rev 08). It also requires the delivery of the enhancement measures for habitats (Appendix 1) and watercourses (Section 3.3) being delivered at the start of the proposed development.

3.4.3 A BNG of more than 10% is achievable for habitat, hedgerow and watercourse units.

Table 1: Summary of the outcomes of the 2025 BNG assessment (amended March 2026)

Unit type	Number of units			On-site percentage net change
	On-site baseline	On-site post-intervention	On-site net change	
Habitats	403.99	467.48	63.49	**15.72%**
Hedgerows	37.4	56.24	18.84	**50.39%**
Watercourses	17.83	21.63	3.79	**21.28%**

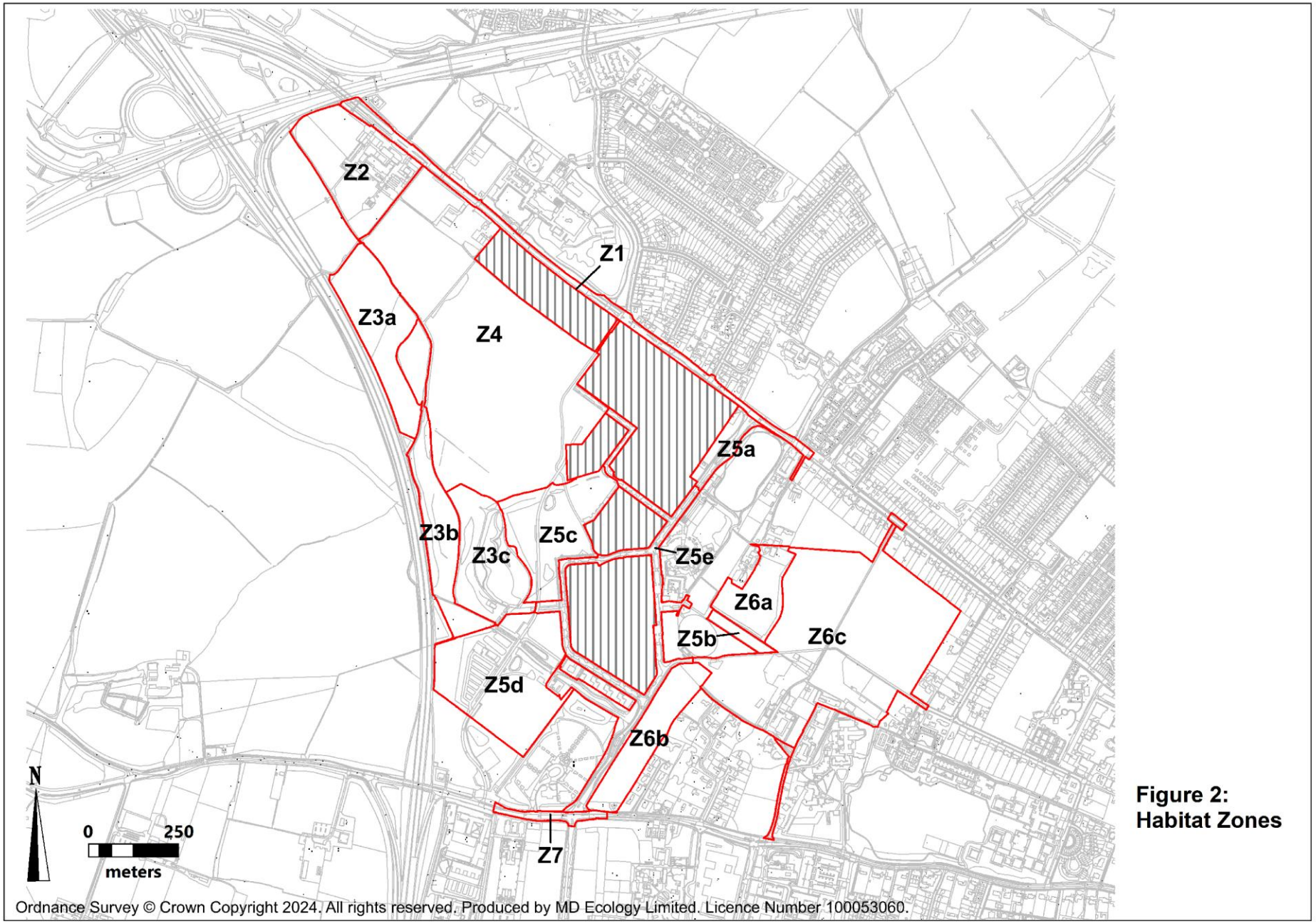
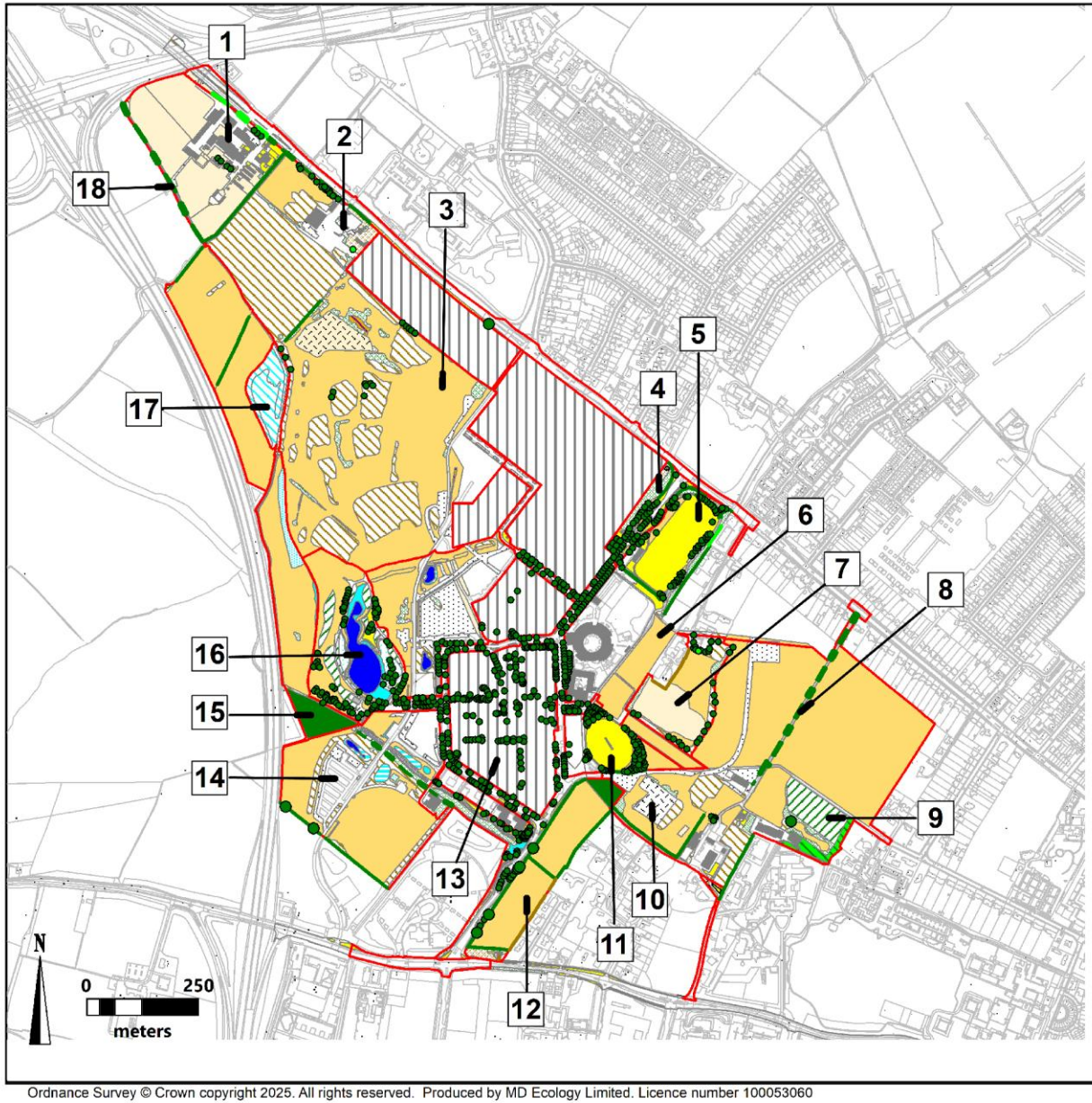


Figure 2:
Habitat Zones



Key

- Ornamental lake / pond (362)
- Margins of lake / pond (f2d / f2f)
- Reedbed (f2e)
- Bioswale (f2f 849)
- Floodplain wetland mosaic (f2f 55)
- Modified grassland (g4)
- Modified grassland - amenity (g4)
- Other neutral grassland (ONG) (g3c)
- ONG - Holcus-Juncus grassland (g3c8)
- Tall forbs (g3c 16)
- Ruderal / ephemeral - ruderal (g3c 81)
- Ruderal / ephemeral - ephemeral (u1f 81)
- Scrub (h3a, d, h, j)
- Developed land; sealed surface - Buildings (u1b5)
- Developed land; sealed surface - Hardstanding (u1b6)
- Artificial; unsealed surface (u1c)
- Urban; vegetated garden / introduced shrubs (u1b6 828 / 845)
- Lowland mixed deciduous woodland (w1f7)
- Other woodland; broadleaved (w1g)
- Other woodland; mixed (w1h/6)
- Watercourse footprint
- Study area
- Not surveyed
- Treeline - broadleaf
- Treeline - conifer
- Native hedgerow
- Species-rich hedge
- Non-native hedge
- Trees - Broadleaf / Conifer

Project

Eddington

Title

Habitat map

Figure

Figure 3

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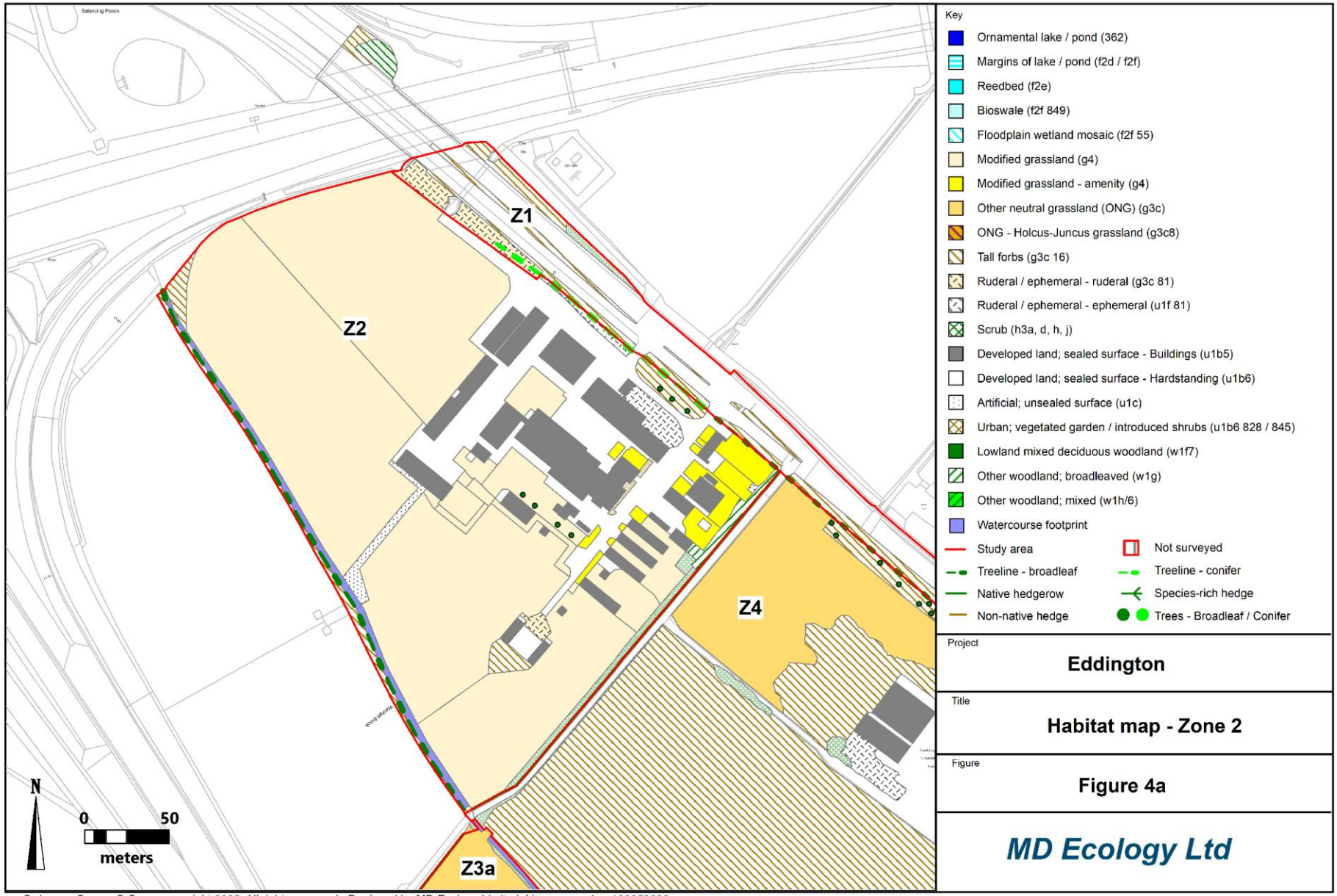

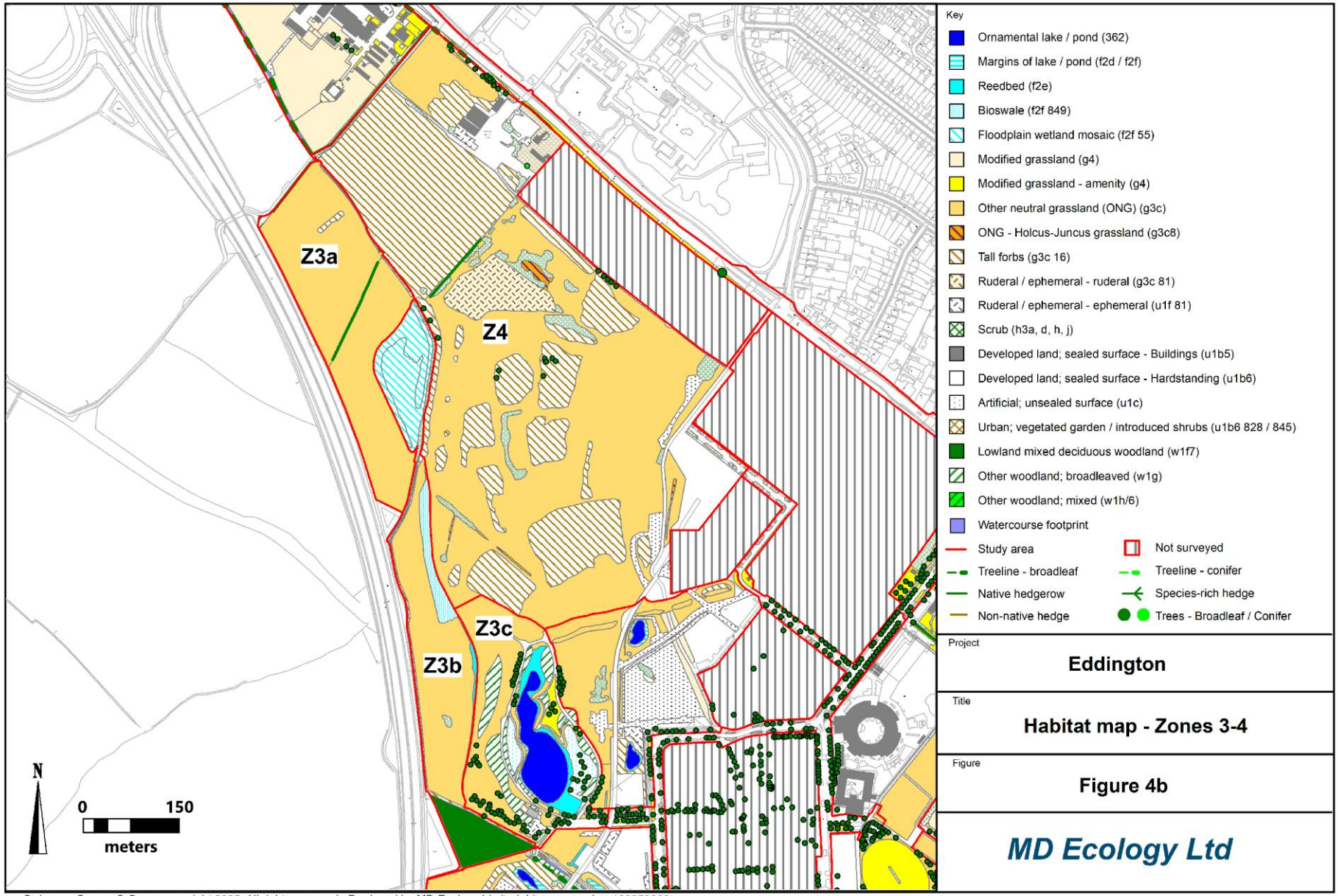

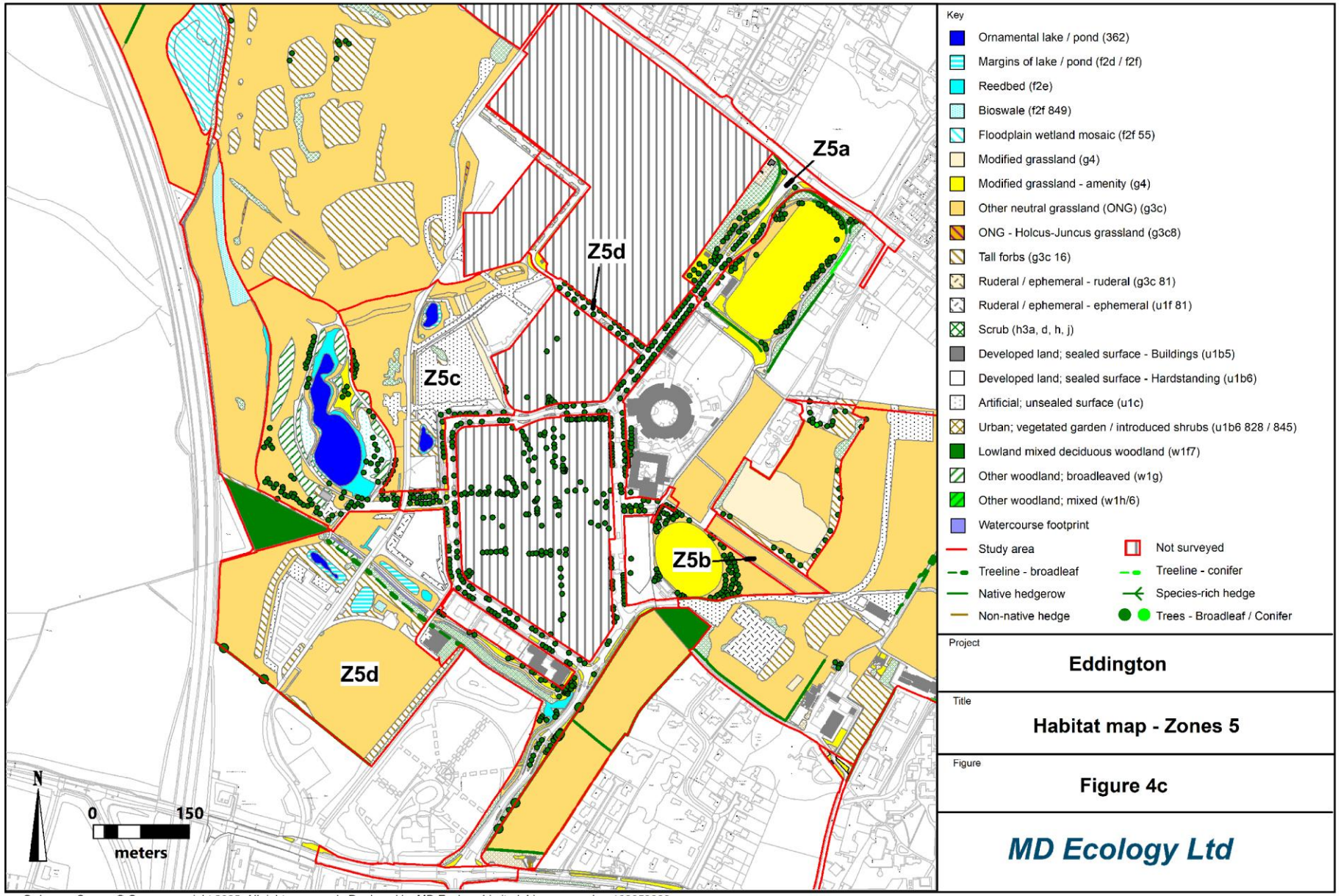

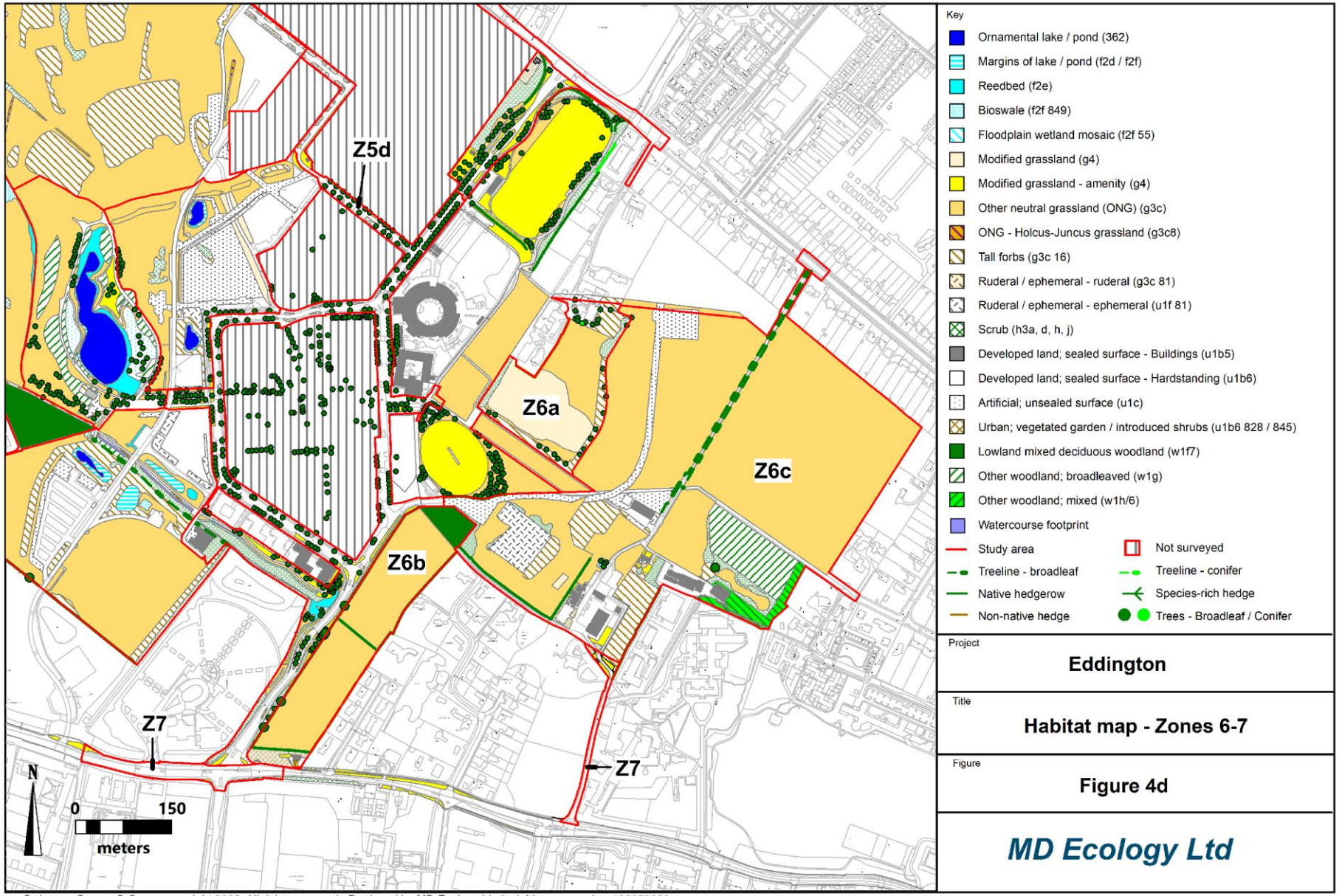

Project

Eddington

Title

Habitat map - Zones 6-7

Figure

Figure 4d

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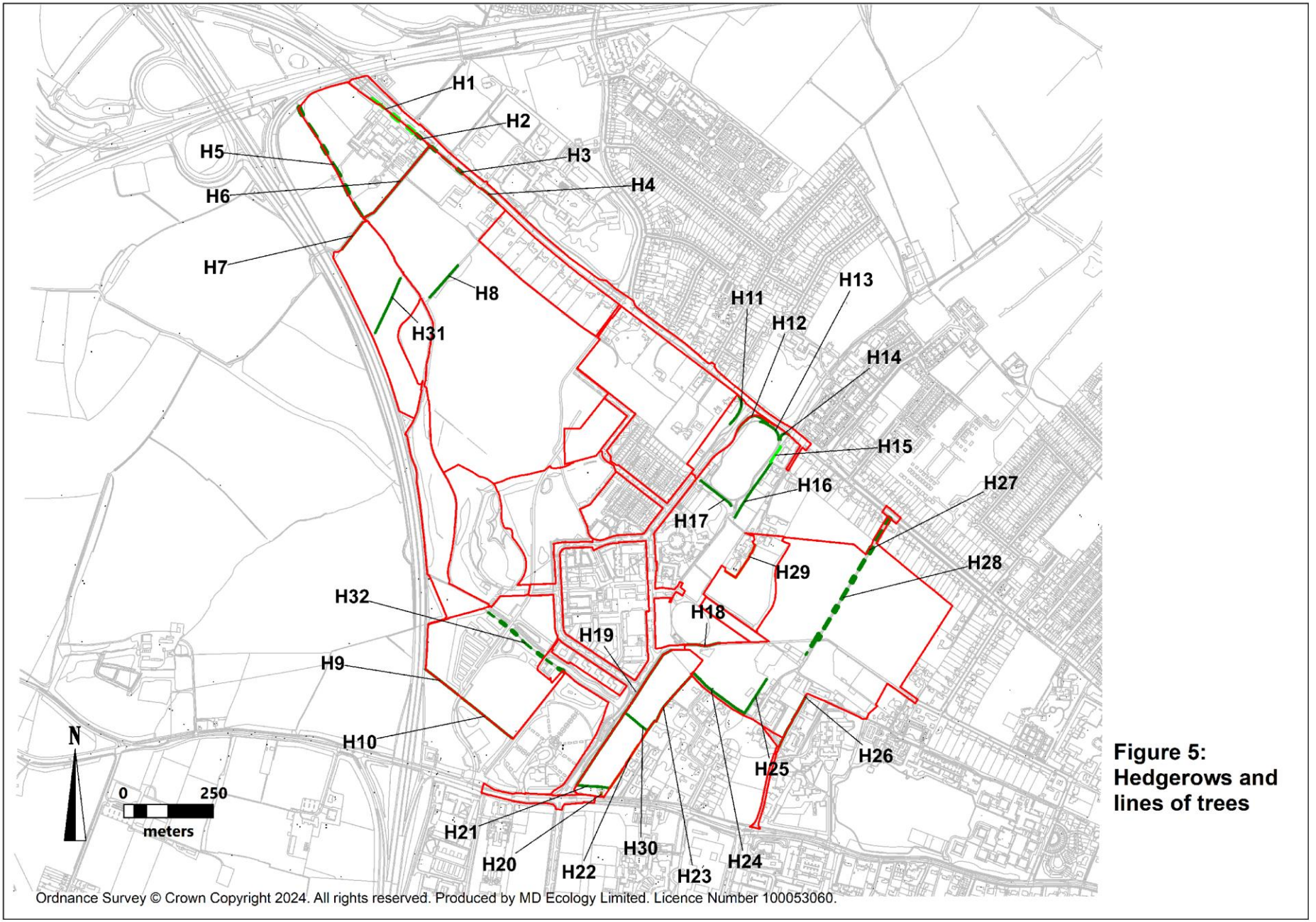

Figure 5: Hedgerows and lines of trees

Appendix 1: Proposed habitat enhancement measures

Ref.	Location	Habitat type	Condition		Measures required
			Current	Proposed	
25	Zone 3b, two stage channel	Floodplain wetland mosaic	Moderate	Good	Reduce shading by coppicing willow trees along ditch - every 5 years. This will encourage development of emergent vegetation and reduce amount of duckweed
27	Zone 3b, grassland between low flow channel and Washpit Brook/M11	Other neutral grassland	Poor	Good	Overseed to increase species diversity to at least 10 vascular plant species/m2 and with a mix characteristic of wet meadow grassland. Remove thistle and nettle to ensure they comprise less than 5% total area. Mow annually in late summer, mow grass path along full length monthly
30	Zone 3b, northern edge of Pheasant Plantation	Tall forbs, to be converted to Other neutral grassland	Poor	Good	Sow as wet meadow grassland - same mix as for Ref 27. Remove thistle and nettle to ensure they comprise less than 5% total area. Mow annually in late summer.
32	Zone 3c, Brook Leys	Modified grassland	Moderate	Good	Manage cutting regime to create variation in sward height (at least 20% lower than 7cm and at least 20% higher than 7cm)
34	Zone 3c, Brook Leys	Ornamental lake or pond	Moderate	Fairly good	Improve water clarity by encouraging development of reedbeds, planting appropriate plant species within the lagoon, removing fish. Remove any non-natives through regular maintenance programmes.
35	Zone 3c, Brook Leys	Other neutral grassland	Poor	Good	Overseed to increase species diversity to at least 10 vascular plant species/m2 and with a mix characteristic of meadow grassland. Mow annually in late summer, mow patches monthly to create diverse structure.
37	Zone 3c, Brook Leys	Reedbeds	Moderate	Good	Remove 20% of reeds from reedbeds to encourage areas of open water within reedbed - apply to northern and southern reedbeds. Every 5 years.
83	Zone 5d, narrow strip of woodland adjacent to Pheasant Plantation	Other woodland; broadleaved	Poor	Moderate	Seed a recognisable NVC woodland ground flora plant community.

Ref.	Location	Habitat type	Condition		Measures required
			Current	Proposed	
87	Zone 5e, Phase 1 verges	Modified grassland	Moderate	Good	Manage cutting regime to create variation in sward height (at least 20% lower than 7cm and at least 20% higher than 7cm).
90	Zone 5e, Phase 1 ponds adjacent to Eddington Avenue/P&R	Reedbeds	Moderate	Good	Remove 20% of reeds from reedbeds to encourage areas of open water within reedbed - apply to both ponds. Every 5 years.
91	Zone 5e, Phase 1 verges	Other neutral grassland	Poor	Good	Overseed to increase species diversity to at least 10 vascular plant species/m2 and with a mix characteristic of meadow grassland. Mow annually in late summer, but mow edges monthly.
92	Zone 5e, Phase 1 adjacent to Lot S3	Bioswale	Moderate	Good	Mow swale banks annually in late summer; mow central channel of swale, or cut emergent vegetation in central channel monthly.
97	Zone 6a, Traveller's Rest Pit SSSI	Tall forbs	Poor	Good	Cut patches in the ruderal vegetation on the banks to create structural variation. Introduce additional species by overseeding with wildflower mix.
98	Zone 6a, Traveller's Rest Pit SSSI	Modified grassland	Poor	Good	Manage cutting regime to create variation in sward height (at least 20% lower than 7cm and at least 20% higher than 7cm). Overseed to increase species diversity to 6-8 vascular plant species/m2 including at least 2 forbs. Reduce % bare ground by allowing recovery of vegetation.
99	Zone 6a, Traveller's Rest Pit SSSI	Other neutral grassland	Poor	Good	Overseed to increase species diversity to at least 10 vascular plant species/m2 and with a mix characteristic of meadow grassland. Mow annually in late summer, mow grass path around edges monthly.
105	Zone 6b, Ridge and Furrow Fields	Other neutral grassland	Poor	Good	Overseed to increase species diversity to at least 10 vascular plant species/m2 and with a mix characteristic of meadow grassland. Remove thistle and nettle to ensure they comprise less than 5% total area. Mow annually in late summer, mow grass path around edges monthly.

Ref.	Location	Habitat type	Condition		Measures required
			Current	Proposed	
117	Zone 6c Storey's Way Wood	Other woodland; broadleaved	Moderate	Good	Remove invasive species. Additional planting (native species) to reduce areas of open space. Improve woodland structure - 3 storeys across all plots.
120	Zone 6c, adjacent to Storey's Way Wood	Other woodland; mixed	Moderate	Good	Remove invasive species. Additional planting (native species) to reduce areas of open space and increase % natives. Increase amount of standing and fallen deadwood. Reduce % tree mortality.