



Manchester University NHS Foundation Trust

Withington Community Hospital

Biodiversity Baseline Assessment

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RSK GENERAL NOTES

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EXECUTIVE SUMMARY

This assessment is a desk-based exercise using the results of surveys carried out by RSK Biocensus on 6 March 2023 for the site at Withington Community Hospital, Withington, Didsbury in Greater Manchester (OS Grid Reference: SJ 83736 92016). The assessment aims to establish the baseline (pre-construction) ecology of the site and assuming post-construction habitats taken from a proposed site landscaping plan provided by the client (Withington Landscape Sketch produced by Square Yard (reference 2301-SQU-XX-00-DR-L-001).

This report calculates 'biodiversity units' using the Defra Biodiversity Metric 4.0, following the methods set out in Defra's Biodiversity Metric 4.0 User Guidance. The calculations are based on the area (or length), distinctiveness, condition and strategic significance of habitats found on the site. The biodiversity assessment calculation can be found in the accompanying excel document 2485005 - Withington Community Hospital 4.0 (Rev01).

The site comprises four habitat types with a total baseline of 2.38 biodiversity area units and 1.47 terrestrial habitat linear units across the 0.65 ha. There is no aquatic linear habitat present on the site. The baseline condition assessments are listed in *Appendix A*.

Post-development plans indicate that five habitats will be created, and one habitat will be partially enhanced, but an area of scrub will still be lost as a result of the development. However, the development currently results in a gain of 0.38 biodiversity area units, which is a total net gain of 15.87% biodiversity area units.

However, the development retains all 1.47 terrestrial habitat linear units and creates an additional 0.14 terrestrial habitat linear units, which is a total net gain 9.70% of terrestrial habitat linear units.

This assessment assumes that the line of trees (0.16km) is retained, 0.14km of hedgerow is created, 4 trees (3 medium and 1 small sized) are planted, 0.06ha of introduced shrub and 0.01ha of native mixed scrub is planted and 0.307ha of scrub will be enhanced. However, it should be noted that the trading rules are not met as the proposed development replaces an area of scrub with developed land; sealed surface and therefore the above assessment should be agreed with the local planning authority.

This is a significant improvement on the initial proposed design which resulted in a loss of 1.1 biodiversity area units, which was a total net loss of 48.79% biodiversity area units. Therefore, the significant improvement to the net gain assessment demonstrates that the development has made a considerable effort to minimise the biodiversity net loss on site.

Furthermore, the net gain calculation does not consider the additional measures which can be included within the proposed design to improve the site for biodiversity, such as the inclusion of integrated bat and bird boxes, insect hotels, creation of log piles, hedgehog houses. Finally, the proposed species within the landscape design will be native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).

A landscape and ecological management plan (LEMP) should be produced to ensure that the habitats are retained and enhanced as outlined within the BNG assessment, as well as how these habitats should be managed going forward, by providing a 25year management plan. This can be secured with a suitably worded planning condition.

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1.0 INTRODUCTION

1.1 Purpose of this report

- 1.1.1 This report presents a study of the effects on biodiversity in connection with the removal, creation and enhancement of habitats for a proposed construction of a new endoscopy and cardiorespiratory facility at the Withington Community Hospital, Withington, Didsbury in Greater Manchester (OS Grid Reference: SJ 83736 92016; Figure 1).
- 1.1.2 The proposed development includes the construction of one new building, associated carparking and landscaping.
- 1.1.3 It is understood that Manchester University NHS Foundation Trust want to achieve maximum possible biodiversity net gain within the site, in line with national and local policy, while also achieving the aims of the proposed development. This report will form the basis of collaboration with design contractors to ensure the proposals contain sufficient ecological mitigation and landscaping to meet this target. Where achieving the target within the site boundary may not be possible, further discussions of off-site enhancements or monetary contributions may be required.

1.2 Landscape context

- 1.2.1 The proposed site boundary is c.0.65 ha, and includes sections of mixed scrub, scattered trees, introduced shrubs and sealed surfaces (hardstanding).
- 1.2.2 The site is bordered to the north by the current hospital building and car park, to which the proposed new building will connect. The site it is bordered by major roads and residential dwellings to the east and the south. Buccleuch Lodge, an intermediate care home surrounded by amenity grassland is located to the west of the site. The wider landscape is urban with the residential of areas Withington, West Didsbury, East Didsbury and Wythenshawe. There are pockets of greenspace present, including parks, playing fields and vegetated railway corridors.

2.0 METHODS

2.1 Introduction

- 2.1.1 The Biodiversity Metric 4.0 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Defra, 2023).
- 2.1.2 This study has been carried out as a desk-based exercise, comparing the results of field surveys carried out at the site by RSK Biocensus (RSK Biocensus, 2023) with a proposed site landscaping plan and planting plan provided by the client (April 2023 2023). The primary documents consulted as part of this study include:
- 2485005 - Withington Community Hospital - Preliminary Ecological Appraisal Report Rev00 (RSK Biocensus, 2023)
 - Withington Site Wide General Arrangements (2301-SQU-XX-00-DR-L-001-EXTERNAL WORKS GA (002)), see *Appendix C*.
- 2.1.3 A map of the pre-construction habitats from the ecological appraisal is presented in *Figure 2*. The visit was undertaken by 11 January 2023.

2.2 Biodiversity assessment methods

- 2.2.1 To calculate biodiversity units for the site and assess any changes arising from the proposed development, this study uses methods set out by Defra in their latest Biodiversity Metric 4.0 user guide (Defra, 2023).
- 2.2.2 The Biodiversity Metric uses habitat area as its core measurement, except for linear features where it uses habitat length. Habitat area is multiplied by several factors (distinctiveness, condition, and strategic location) that indicate its quality, and this gives its biodiversity unit value. This can be used for existing and future habitats.
- 2.2.3 Where future habitats are to be enhanced or newly created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).
- 2.2.4 The biodiversity value is assessed separately for linear habitats because describing them only by area would result in an underestimate and would therefore fail to ensure adequate compensation for losses. Linear habitats are split into two types: terrestrial, mainly hedgerows and lines of trees; and aquatic, mainly rivers and streams. They are assessed using the same metric, but they cannot be summed together. Therefore, a site can have three biodiversity unit values: one for habitat areas; one for terrestrial linear features; and one for aquatic linear features.

Habitat distinctiveness

- 2.2.5 Habitats are classified using the UK habitat classification system (UKHAB, 2018). The Biodiversity Metric 4.0 pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e., species richness, rarity (at local, regional,

national, and international scales), and the degree to which it supports species rarely found in other habitats.

- 2.2.6 On rare occasions, the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any alterations must then be fully explained in the condition assessment (*Appendix A*) using evidence relevant to the site, e.g., an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

Habitat condition

- 2.2.7 Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The Biodiversity Metric 4.0 Technical Annex 1 Condition Assessment Sheets and Methodology (Defra, 2023a) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate, or poor condition.

Strategic location

- 2.2.8 Strategic location - sometimes called 'strategic significance' - works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential), and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

Difficulty of creation and restoration

- 2.2.9 The risks associated with creating or enhancing habitats, e.g. owing to management, are known as difficulty factors. The Biodiversity Metric 3.1 contains default values for each habitat based on the average difficulty of creating or enhancing it. Occasionally under exceptional circumstances these can be modified, any deviation from the default value must be fully justified in the condition assessment.

Time to target condition

- 2.2.10 There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity for a time. The Biodiversity Metric 4.0 preassigns the time to target condition based on good practice and typical conditions, and it assigns a multiplier based on the number of years required to achieve it. Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must be fully justified in the condition assessment.

Off-site risk

- 2.2.11 Sometimes it is not possible to adequately compensate for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is

a significant disturbance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

3.0 BIODIVERSITY ASSESSMENT

- 3.1.1 For the biodiversity assessment refer to the accompanying excel document.
2485005 - Withington Community Hospital - Biodiversity Baseline Assessment 4.0
(Rev03).xlsm

4.0 BIODIVERSITY ASSESSMENT SUMMARY

4.1 Biodiversity baseline

- 4.1.1 The UKHab map (*Figure 2*) has been used to identify three habitat areas, one terrestrial linear habitat and zero aquatic linear habitat within the c.0.65 ha red line boundary with a total of 2.38 area units, 1.47 terrestrial linear units and 0 aquatic linear units.
- 4.1.2 The condition assessments are provided in *Appendix A*. There were no deviations from the default methods for baseline habitats.

4.2 Post-development habitat creation

- 4.2.1 The proposed development (April 2023) was used to determine the areas of habitats retained, created and enhanced. This assessment assumes the following
- 0.307ha of mixed scrub will be enhanced,
 - 0.28ha of developed land; sealed surface will be created,
 - 0.06ha of introduced shrub will be created,
 - 0.01 of native, mixed scrub will be created,
 - 3 medium trees will be planted,
 - 1 small tree will be planted
 - 0.14km of non-native and ornamental hedgerow will be created,
 - All existing trees will be retained as part of the proposals.
- 4.2.2 The 0.307ha of retained scrub will be enhanced via the removal of invasive non-native species, this will increase the condition assessment from poor to moderate.

4.3 Change in biodiversity value

- 4.3.1 Under the current proposals set out in the proposed landscaping plan (June 2023), there will be a net gain of + 0.38 (+ 15.87%) biodiversity area units and there will be a net gain of + 0.14 (+ 9.70%) terrestrial habitat linear units. This is shown in **Table 1** below.

4.3.2 **Table 1: Change in biodiversity units calculation.**

Post-development Biodiversity Area Units		Baseline Biodiversity Area Units		Change in Biodiversity Area Units
2.76	-	2.38	=	+ 0.38 (+ 15.87%)
Post-development Biodiversity Terrestrial Linear Units		Baseline Biodiversity Terrestrial Linear Units		Change in Biodiversity Terrestrial Linear Units
1.61	-	1.47	=	0.14 (+ 9.70%)

Post-development Biodiversity Area Units		Baseline Biodiversity Area Units		Change in Biodiversity Area Units
Post-development Biodiversity Aquatic Linear Units		Baseline Biodiversity Aquatic Linear Units		Change in Biodiversity Aquatic Linear Units
0.00	-	0.00	=	0.00 (+/- 0%)

5.0 EVALUATION

- 5.1.1 Post-development plans indicate that three habitats will be created, and one habitat will be partially enhanced. However, an area of scrub will be lost and replaced with a building, areas of hardstanding and introduced shrub. As such, the development currently results in a gain of 0.38 biodiversity area units, which is a total net gain of 15.87% biodiversity area units.
- 5.1.2 The development retains all 1.47 terrestrial habitat linear units and creates an additional 0.14 terrestrial habitat linear units, which is a total net gain 9.70% of terrestrial habitat linear units. This assessment assumes that the line of trees (0.16km) is retained, 0.14km of hedgerow is created, 4 trees are planted and 0.307ha of scrub will be enhanced.
- 5.1.3 It should be noted that the current proposed development does not meet BNG habitat trading rules as the BNG assessment requires that the 0.34ha of mixed scrub should be replaced with the same broad habitat type or high distinctiveness habitat required.
- 5.1.4 However, it should be noted that the current proposed development is a significant improvement on the initial proposed design which resulted in a loss of 1.17 biodiversity area units, which was a total net loss of 48.79% biodiversity area units, see Square Yard (2023) Withington Landscape Sketch (reference 2301-SQU-XX-00-DR-L-001). The initial proposed design did achieve a 10.81% net gain in terrestrial linear units, but the significant net loss of biodiversity area units is considerably worse for biodiversity.
- 5.1.5 Furthermore, the proposed landscape design is considered appropriate to the size and scale of the development and the enhancement of the retained scrub provides the smallest net loss to the site, without significantly impacting the design and purpose of the proposed development.
- 5.1.6 Additionally, the net gain calculation does not consider additional measures which could be included within the proposed design to improve the site for biodiversity, such as the inclusion of integrated bat and bird boxes, insect hotels, creation of log piles, hedgehog houses. Finally, the proposed species within the landscape design are anticipated to be native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).
- 5.1.7 Therefore, the significant improvement to the net gain assessment demonstrates that the development has made a considerable effort to minimise the biodiversity net loss on site.

6.0 RECOMMENDATIONS

- 6.1.1 It is recommended that the proposed development includes integrated bat and bird boxes, insect hotels, log piles, hedgehog houses to further improve biodiversity within the proposed development. Furthermore, it is recommended that the proposed species within the landscape design are native and of local provenance, or to have a proven benefit to biodiversity (e.g., are berry / nut bearing species to promote birds / nectar rich species to encourage invertebrates).
- 6.1.2 Due the type of habitats on the site and proposed size of the development, it is considered that the proposed landscape design is appropriate to the size and scale of the development. However, it should be noted that although the current proposals achieve a net gain, the current assessment does not meet BNG habitat trading rules. Therefore, this assessment should be discussed and agreed with the local planning authority.
- 6.1.3 A landscape and ecological management plan should be produced which details how habitats will be created, enhanced and maintained and monitored following completion of the development. It should cover up to 25 years post development.

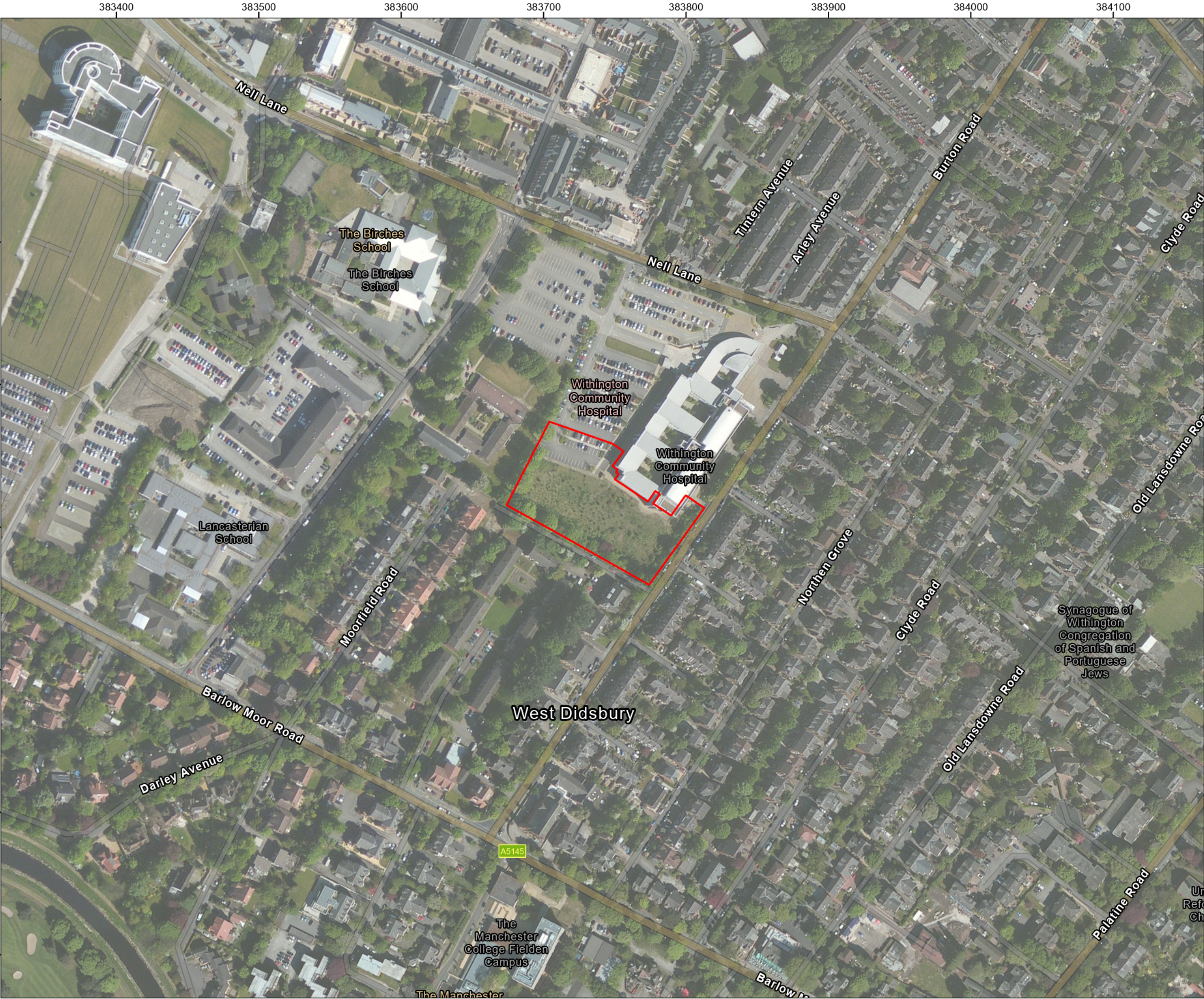
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- Defra (2023a), *The Biodiversity Metric 4.0: Technical Annex 1 - Condition Assessment Sheets and Methodology* (March 2023). Natural England
- RSK Biocensus (2023), 2485005 - *Withington Community Hospital Preliminary Ecological Appraisal Report Rev00*
- Square Yard (2023) Withington Landscape Sketch produced by Square Yard 004
- Square Yard (2023) Withington External Works - Site Wide General Arrangements (reference 2301-SQU-XX-00-DR-L-001)
- UKHAB (2018), *UK Habitat Classification Documents*.
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FIGURES

Figure 1 - Site Location Plan

Figure 2 - Existing Habitats



Legend:

Site Boundary

00	17/01/2023	2485005	RG	SP	TW
Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 1:

Site Location Plan

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Metres

SCALE: 1:2,500 @ A3

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