

Technical Advice Note

Job Number	RWE0308
Project	Land off Graphite Way, Hadfield
To	Richard Jagger (RJ Architectural Design Ltd)
Date	3 rd May 2024
Subject	Site walkover to determine if further invertebrate survey is required.
Reference	RW-RJ-002-RWE0308-TAN/Inverts

Introduction

The following technical advice note (TAN) is provided for RJ Architectural Design Limited's needs to inform whether further terrestrial invertebrate survey work is required within the land parcel off Graphite Way which is located within the existing Rossington Park Industrial Estate, Hadfield, in Derbyshire ('the Study Site').

Brief

Richard Wilson Ecology Limited was commissioned in mid-April 2024 to complete a scoping visit within the Study Site for the purposes of determining if further invertebrate survey work is required.

Background

The Study Site comprises a small land parcel situated at the apex of Woolley Bridge Road and the entrance to Rossington Park Industrial Estate on Graphite Way in Hadfield, a small town immediately north of Glossop, on the south side of the River Etherow within the Longdendale Valley, Derbyshire (centred on National Grid Reference: SK 0141 9630). It occupies approximately 4,440 m² (0.44 hectares) with dimensions of c. 85 metres on its north-south axis and c. 65 m on its east-west axis.

Ecological Desk Study

A botanical survey was completed on the 22nd June 2023 by ¹Arbtech Consulting Limited which provides a detailed description of the 58 species of plants and bryophytes (mosses) recorded by their surveyor; who categorised the grassland as g3c neutral grassland based on the UK Hab classification. The habitat map presented in their report differs somewhat from the narrative in that it maps the central core of the site as mid-successional grassland (a generic description) which is surrounded by a habitat that is described as riparian and transitional (but doesn't explain what this means), and bramble scrub (self-evident).

Arbtech Consulting (2023) state in their Impacts and Recommendations section that the development would lead to a loss of species-rich grassland that is a component element of a wider resource that is described as being Open Mosaic Habitat on Previously Developed Land (OMH), a Habitat of Principal Importance as defined by the Natural Environment and Rural Communities Act 2006 (as amended by the Environment Act 2021).

It is assumed that the reference to OMH has flagged the requirement for at least a terrestrial invertebrate scoping survey.

Site Walkover (May 2024)

A site walkover was completed on the 2nd May 2024 by an experienced applied entomologist (Richard Wilson CEnv MCIEEM Mem.RES). The purpose of the walkover was to consider the habitats described in Arbtech Consulting's botanical report and in combination with the observations made by the invertebrate ecologist,

¹ Arbtech Consulting. (2023) *Botanical Walkover Survey. Graphite Way, Hadfield, Glossop*. Issue Version 2, dated 25th July 2023.

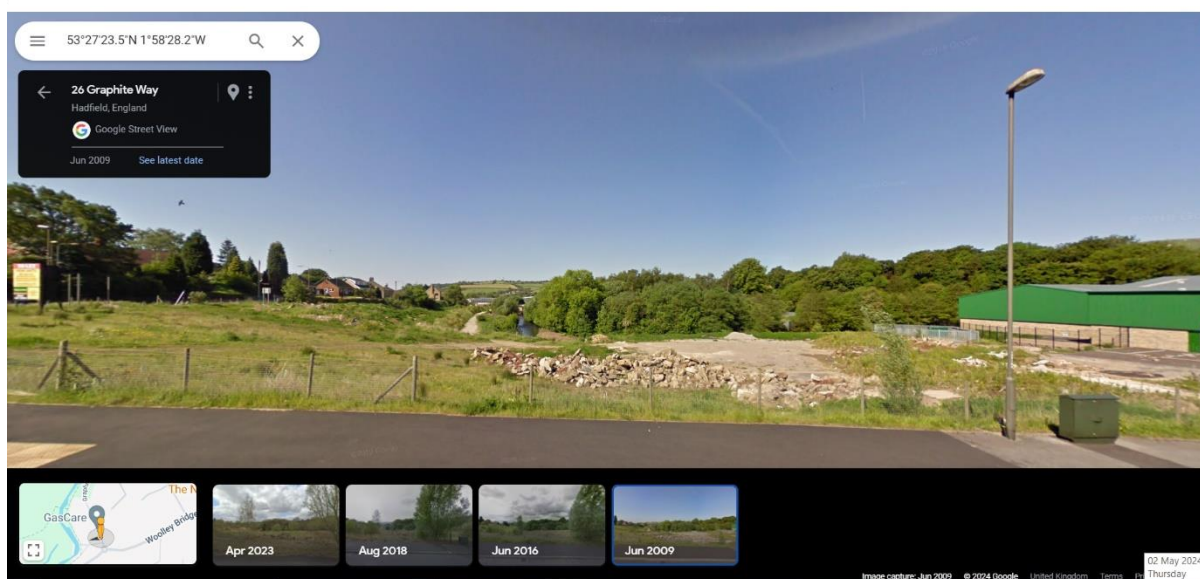
evaluate whether more detailed terrestrial invertebrate survey would be proportionate (incidentally, a recommendation not made by Arbtech Consulting themselves).

The site visit was completed on the 2nd May 2024 in dry conditions with temperatures around 20°C. The Study Site amounts to a small corner plot on the edge of an industrial estate. The vegetation communities represented consist of a strip of bramble scrub that has developed on the Study Site's eastern and northern boundaries and which continues to invade the diminishing grasslands. The central area of the site is represented by an unremarkable grassland (see Figure 1) that has recently developed on what was previously hardstanding or made ground, as evidenced by the screen-grab from Google Maps' Streetview function in Figure 2, occupies the central portion of the Study Site .

Figure 2: Central grassland area (looking north) and example of the sward (May 2024). Lorry is parked up on Graphite Way.



Figure 1: Screen-grab from Google Maps (Streetview) of the Study Site (image dating to June 2009) illustrating the central area and waste rubble left in situ. © Google.



The photographs in Figure 1 illustrate the characteristics of the site in May 2024. There has been recent clearance of some mature woody vegetation as evidenced by the brush pile in the left photo; and recent re-growth of willows that follow the site's boundary on Graphite Way.

The western edge of the site descends towards the River Etherow with scattered Hawthorn (*Crataegus monogyna*) shrubs, Silver Birch (*Betula pendula*) and willows (*Salix* sp.), and a similar mosaic of self-grown/

planted trees occurs to the south. A permissive footpath leads off Graphite Way and continues westwards following the river corridor.

Arbtech Consulting’s botanical report describes the habitats within the Study Site as forming a component element of a wider OMH community as mapped on the Multi-Agency Geographic Information for the Countryside website. The metadata behind this mapping states that the source data is aerial mapping and based on the fact this is a historic landfill site from data provided by the Environment Agency in June 2011. The reliability of this data is defined as low.

Defining OMH is a complex consideration of various factors, one of which is area. Any land parcel that is less than 0.25 ha (2,500 m²) is probably not OMH (²Lush, Kirby and Shepherd, 2013) on the basis that it represents too small a habitat patch; and external influences may well prevail over any sustainable within-site habitat. The current Study Site exceeds the 0.25 ha, but at 0.44 ha, there remains a limited opportunity for habitat variation.

Figure 3: Extract from the OMH Handbook providing criteria for determining OMH.

BAP criterion		Determining using survey data
1	The area of open mosaic habitat is at least 0.25 ha in size.	All potential OMH sites in the inventory or on the website should be at least 0.25 ha. The area of other sites surveyed will need to be determined.
2	Known history of disturbance at the site or evidence that soil has been removed or severely modified by previous use(s) of the site. Extraneous materials/substrates such as industrial spoil may have been added.	One or more of the following have been recorded for question 10 on the survey form: • 'Known history of disturbance' • 'Severely modified by previous use' • 'Extraneous material or substrates added'
3	The site contains some vegetation. This will comprise early successional communities consisting mainly of stress-tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of (a) annuals, or (b) mosses/liverworts, or (c) lichens, or (d) ruderals, or (e) inundation species, or (f) open grassland, or (g) flower-rich grassland, or (h) heathland.	One or more vegetation types from the following groups have been recorded for question 18 on the survey form: • 'Early successional vegetation', with the exception of 'Bare ground' • 'Grassland' • 'Herb dominated' • 'Heathland' • 'Inundation vegetation or seasonally wet areas'
4	The site contains unvegetated, loose bare substrate and pools may be present.	'Bare ground' or 'Sparse vegetation' have been recorded for question 18 on the survey form.
5	The site shows spatial variation, forming a mosaic of one or more of the early successional communities (a)-(h) above (criterion 3) plus bare substrate, within 0.25 ha.	See 4 and 5 above.

Lush, Kirby and Shepherd (2013) provide five criteria (Figure 3) which are all required to be passed for OMH (in the sense of the Habitat of Principal Importance) to be considered.

The habitats as described by Arbtech Consulting from their detailed survey in June 2023, and based on the current walkover survey in May 2024 fails on Criterion 3 (no meaningful early successional vegetation), Criterion 4 (entirely) and Criterion 5 (very limited spatial variation owing to size to be of any significance). On this measure, the habitats within the Study Site are not OMH within the meaning of the Priority Habitat.

In and of itself, this is not a reason to exclude the requirement for invertebrate survey, but it undermines the argument for it.

In considering whether further invertebrate survey is required, the size of a site in combination with its context within the immediate ecological landscape is relevant. Taking the Study Site as it stands, it is small, amounting to a remnant plot of what was once a much larger expanse of riparian habitat that has now been subsumed by the Industrial Park, leaving this small area. Its ecological role is probably best considered in the context of its proximity to the riparian corridor afforded by the River Etherow, which Arbtech Consulting states is undesignated for nature conservation at this locality. The proposed development’s footprint is restricted to the ‘platform’ above the riparian corridor and would therefore result in the loss of bramble scrub, rubble pile and unremarkable grassland. This largely open habitat biotope is replicated elsewhere within the Rossington Industrial Estate as part of the verge system and other undeveloped plots; and within the riparian corridor up and downstream. The Study Site’s small size restricts the resources and features available. None of the observable resources such as flower (pollination sequence and availability) are restricted to this small plot, they are evident elsewhere, including roadside verges and throughout the riparian corridor. In this context, invertebrate assemblages/ species present within the Study Site will be using this as a patch, within a wider resource that is available within the ecological landscape defined by the River Etherow corridor. It is therefore improbable that there are species present within the Study Site that are dependent on it and further survey is not likely to improve on a more generic overview, or recommendations based on avoiding unnecessary vegetation clearance. It is expected that

² Lush, M.J., Kirby, P. and Shepherd, P. (2013) *Open Mosaic Habitat Survey Handbook*. exegesis, Powys. Available online: <https://cdn.buglife.org.uk/2019/07/Open-Mosaic-Habitat-Survey-Handbook.pdf>

standard conditions would be imposed on any planning permission in terms of avoiding vegetation clearance, damage or disturbance within a reasonable buffer of the River Etherow, and that soft landscaping to screen any development, particularly on the boundary facing the River would be imposed. On this basis, it is suggested that native trees, particularly using species such as Cherry Plum (*Prunus cerasifera*), Willows (already on site), Common Gorse (*Ulex europaeus*), Field Maple (*Acer campestre*) and Crab Apple (*Malus sylvestris*) would enhance this blossoming sequence and concurrently provide an aesthetic. Inspiration can be read here: <https://farmwildlife.info/2021/06/04/managing-hedges-for-pollinators>.

Conclusions and Recommendations

On the basis of the site visit completed in May 2024, no further invertebrate survey is required.