



NEPHRA ALLOTMENTS.

OS REF: SD 8964 0259.

BIODIVERSITY NET GAIN REPORT.

Ref No: 240529/Rev 1.

Date: 18th July 2024.

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1. INTRODUCTION.

1.1. An application is being prepared for the siting of a new modular building on a community allotment area in New Moston, Manchester.

1.2. Whitcher Wildlife Ltd has therefore been commissioned to carry out baseline biodiversity assessments of the allotments. An initial baseline survey of the allotments was carried out on 7th June 2024. This report outlines the findings of that survey and makes appropriate recommendations.

2. SURVEY METHODOLOGY.

2.1. This report was prepared in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.2. Prior to visiting the site, the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.3. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the UK Habitat Classification methodology to identify the primary habitat types throughout the survey area. All primary habitats are accompanied by secondary codes which are used to add further specific details where necessary. Each primary habitat and unique set off secondary codes will be shown individually in the appended annotated map.

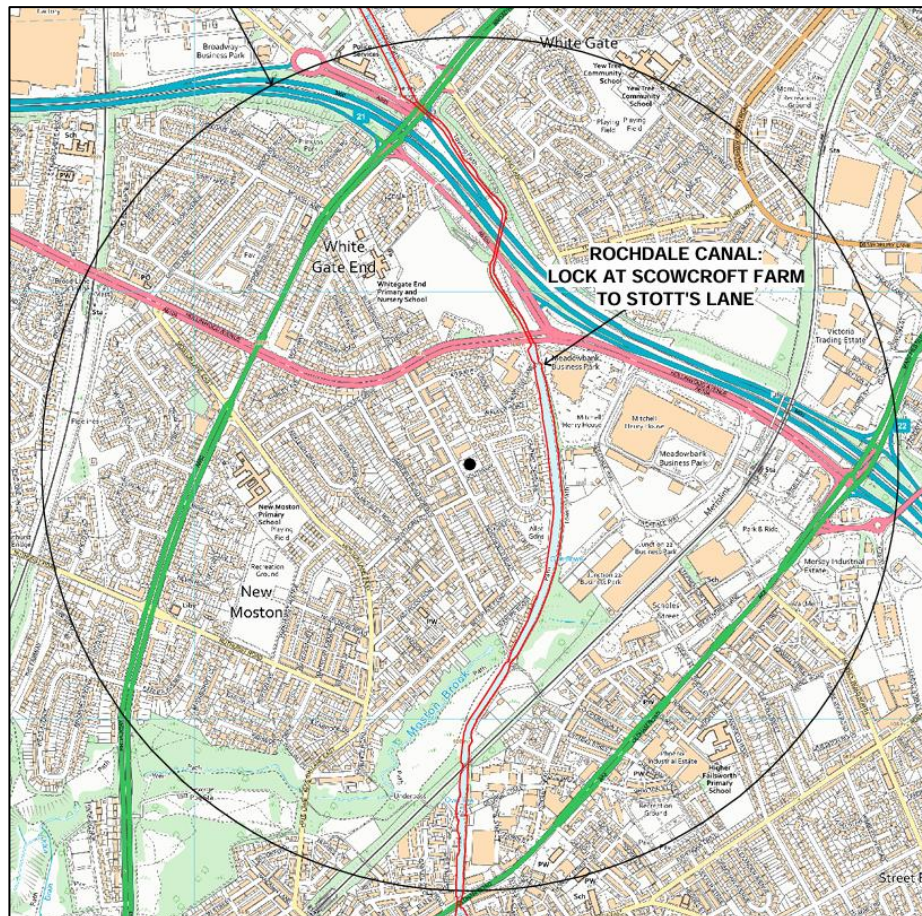
2.4. This report is prepared in line with the Natural Environment and Rural Communities (NERC) Act that came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

2.5. This survey was carried out by Jess Mason MSc ACIEEM FRGS. Since 2018 Jess has had experience in a professional capacity as an Ecologist carrying out protected species and habitat surveys. Jess holds a Natural England survey licences in respect of bats, great crested newts, and barn owls, and a Scottish Natural Heritage survey licence in respect of barn owls. She has also successfully completed a number of courses run by FSC and CIEEM in the relative protected species and carrying out site assessments using vegetation and has completed a MSc in Biological Recording. Jess is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

3. ECOLOGICAL BASELINE.

3.1. Data Search Results.

The Greater Manchester Ecology Unit holds one record of Local Wildlife Sites within 1km of the survey area. The survey area approximately 180m to the west of the “Rochdale Canal: Lock At Scowcroft Farm to Stott’s Lane” Local Wildlife Site, shown on the map below.



3.2. The Surveyed Area

3.2.1. The survey area is located in an urban location, immediately surrounded by dense residential estates. The wider surrounding area comprises a similar urban landscape with Rochdale Canal to the east, and urban greenspaces and tree lines further afield.

3.2.2. The aerial map below shows the location of the survey area, shown in red, and the surrounding area.



3.2.3. The survey area comprises a community allotment with raised beds, temporary greenhouse structures, and scattered fruit trees, as well as an entrance road and two portable cabins.

3.3. Habitat descriptions

3.3.1. Appendix I of this report contains annotated maps marked up with the varying habitats. The primary habitats on and adjacent to the site are listed below, followed by descriptions of each habitat and a baseline condition assessment of the habitat for the purpose of the Biodiversity Net Gain baseline assessment of the site: -

- g4 modified grassland
- w1g other woodland - broadleaved
- g3c other neutral grassland
- u1 built-up areas and gardens (allotments)
- u1b developed land; sealed surface
- u1b5 buildings
- u1e built linear features

3.3.2. g4 modified grassland.

Secondary codes: 32 scattered trees, 830 community garden

3.3.2.1. The majority of the survey area comprised short-mown lawns dominated by perennial ryegrass (*Lolium perenne*), annual meadow-grass (*Poa annua*), Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*), and dandelion (*Taraxacum officinale* agg.).



3.3.2.2. The table below shows the results of the “grassland – low distinctiveness” condition assessment. This habitat passes five of the criteria, but fails essential criterion A, leading to a “poor” result.

Condition Assessment Criteria		Criterion passed (Yes or No)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Yes
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Yes
Essential criterion achieved (Yes or No)		No
Number of criteria passed		5
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/✓

Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓

3.3.2.3. There are scattered small fruit trees throughout the grassland comprising plum (*Prunus domestica*), apple (*Malus domestica*), pear (*Pyrus communis*), and also scattered young goat willow (*Salix caprea*) trees.

3.3.2.4. The table below shows the results of the “urban trees” condition assessment. The habitat passes two of the five criteria, leading to a “poor” result.

Condition Assessment Criteria		Criterion passed (Yes or No) - Tree no.						
		1	2	3	4	5	6	7
A	The tree is a native species (or at least 70% within the block are native species).	No	No	No	No	No	No	No
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C	The tree is mature (or more than 50% within the block are mature).	No	No	No	No	No	No	No
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	No	No	No	No	No	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No	No	No	No	No	No	No
Number of criteria passed		2	2	2	2	2	2	2
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓						
Passes 5 or 6 criteria	Good (3)							
Passes 3 or 4 criteria	Moderate (2)							
Passes 2 or fewer criteria	Poor (1)	✓	✓	✓	✓	✓	✓	✓

3.3.3. w1g other woodland – broadleaved

Secondary codes: 33 line of trees

3.3.3.1. Along the southern edge of the site was a row of bird cherry (*Prunus padus*). Areas beneath the tree canopies were dominated by the same modified grassland as described in 3.3.2, but appeared to be less frequently mown, and also included meadow foxtail (*Alopecurus pratensis*), sweet vernal-grass (*Anthoxanthum odoratum*), common sorrel (*Rumex acetosa*), and cuckooflower (*Cardamine pratensis*).



3.3.3.2. The table below shows the results of the “line of trees” condition assessment. This habitat passes three of the five criteria, leading to a “moderate” result.

Condition Assessment Criteria		Criterion passed (Yes or No)
A	At least 70% of trees are native species.	Yes
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Yes
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	No
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .	No
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Yes
Number of criteria passed		
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved x/✓
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	✓
Passes 2 or fewer criteria	Poor (1)	

3.3.4. g3c other neutral grassland

Secondary codes: 81 ruderal or ephemeral

3.3.4.1. On the northern edge of the site, a strip of grassland has been allowed to develop naturally and has succeeded into ruderal vegetation with the addition of a few garden escapes. At the time of the survey, it appeared that the area had recently been cut back. The habitat comprised perennial ryegrass (*Lolium perenne*), annual meadowgrass (*Poa*

annua), Yorkshire fog (*Holcus lanatus*), hard rush (*Juncus inflexus*), field horsetail (*Equisetum arvense*), pendulous sedge (*Carex pendula*), creeping thistle (*Cirsium arvense*), creeping buttercup (*Ranunculus repens*), nettle (*Urtica dioica*), bramble (*Rubus fruticosus*), broadleaved dock (*Rumex obtusifolius*), rosebay willowherb (*Chamerion angustifolium*), yellow iris (*Iris pseudacorus*), ribwort plantain (*Plantago lanceolata*), goat willow saplings (*Salix caprea*), dandelion (*Taraxacum officinale* agg.), sycamore saplings (*Acer pseudoplatanus*), and French crane's-bill (*Geranium endressii*).



3.3.4.2. The table below shows the results of the “grassland – medium, high and very high distinctiveness” condition assessment. This habitat passes five of the criteria, but fails essential criterion A, leading to a “poor” result.

Condition Assessment Criteria		Criterion passed (Yes or No)
A	<p>The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.</p> <p>Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.</p>	No
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ¹ .	No

D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Yes
E	Combined cover of species indicative of sub-optimal condition ² and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴) are present, this criterion is automatically failed.	Yes
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Yes
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Yes
Number of criteria passed		4
Condition Assessment Result		Condition Assessment Score
Non-acid grassland Types (Result out of 6 criteria)		Score Achieved ×/✓
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good (3)
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor (1) ✓

3.3.5. u1 built-up areas and gardens

Secondary codes: 616 allotments, 846 flower beds

3.3.5.1. Community allotments in the centre of the site comprised raised beds planted with vegetables and other cultivated plants, greenhouses, and tarmacked paths connecting the different areas. Concrete paving and plastic boardwalks are also present in some areas of the allotment.



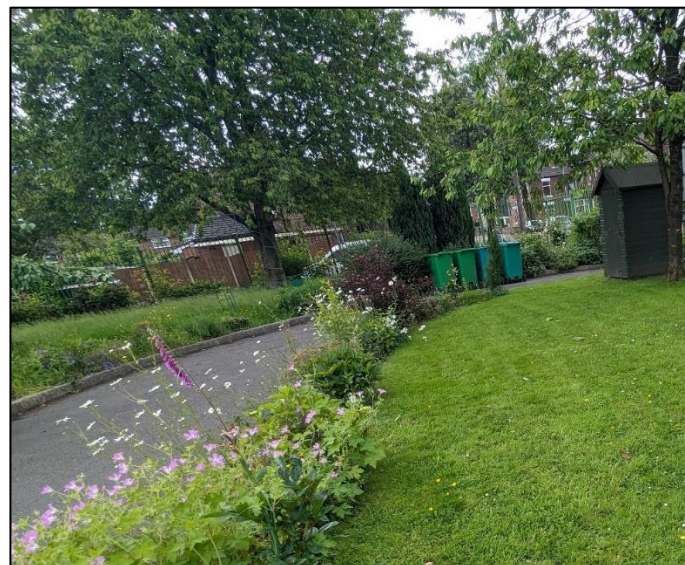
3.3.5.2. On the eastern edge of the site, and adjacent to the road in the west of the site, flower beds have been planted with mostly non-native species and typical garden species. The flower beds are well maintained, and no semi-natural vegetation has been allowed to establish. However, some native species are present including ox-eye daisy (*Leucanthemum vulgare*) and foxglove (*Digitalis purpurea*).



3.3.6. u1b developed land; sealed surface

Secondary codes: 800 road

3.3.6.1. A tarmacked entrance road is present, connecting the road to the west of the survey area into the site. The road is bordered by a maintained flower bed, as described in 3.3.5.



3.3.7. u1b5 buildings

Two small portable cabins were present in the northwest of the site. The larger cabin was placed on a tarmac surface which extends from the road, and the smaller cabin was placed on a concrete surface which extends out from the allotments.



3.3.8. u1e built linear features

The entire site boundary is demarcated by fencing. Along the northern, western and southern boundaries, the fence is constructed from metal railings. The boundaries with the residential properties to the east are demarcated by various timber fences which appear to be owned by the residential properties. The fences on the southern and western boundaries are planted with various garden species, including wall cotoneaster (*Cotoneaster horizontalis*).



4. BIODIVERSITY NET GAIN ASSESSMENT.

4.1. Baseline Biodiversity Value.

The below table shows the baseline biodiversity value for the site from the Statutory Biodiversity Metric. This is designed to give an indication of the biodiversity value of the site prior to any development. The baseline on the site was calculated at 0.7 Biodiversity Units (BU) as demonstrated in the table below.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units (BU)
Other neutral grassland	0.0176	Medium	Poor	0.07
Modified grassland	0.0661	Low	Poor	0.13
Other woodland; broadleaved	0.0364	Medium	Moderate	0.29
Allotments	0.0392	Low	Poor	0.08
Developed land; sealed surface	0.0172	V.Low	N/A - Other	0.00
Vegetated garden	0.0065	Low	Condition Assessment N/A	0.01
Individual trees	0.0285	Medium	Poor	0.11
Total	0.18			0.7

4.2. Post Development Intervention and Habitat Creation.

The below shows the biodiversity units that will be delivered on site post development. This was calculated using a proposed site layout and planting plan prepared by ELG Planning.

Habitat Type	Extent (ha)	Distinctiveness	Condition Assessment	Biodiversity units
Retained:				
Other neutral grassland	0.0176	Medium	Poor	0.07
Modified grassland	0.0344	Low	Poor	0.07
Other woodland; broadleaved	0.0364	Medium	Moderate	0.29
Allotments	0.0392	Low	Poor	0.08

Vegetated gardens	0.0047	Low	Condition Assessment N/A	0.01
Individual trees	0.0285	Medium	Poor	0.11
Created:				
Developed land; sealed surface	0.0375	V.Low	N/A - Other	0.00
Mixed scrub	0.0111	Medium	Moderate	0.07
Urban tree	0.0244	Medium	Poor	0.07
Total				0.77

4.3. Biodiversity Net Gain Calculations.

Based on the figures above, there will be a gain of 0.08 habitat Bu (+10.82%). The trading rules have also been satisfied due to the creation of higher distinctiveness habitats.

5. EVALUATION AND RECOMMENDATIONS.

5.1. Overall, there will be a net gain of 0.08 habitat Bu (+10.82%) and all trading rules have been satisfied, and therefore the statutory requirements for biodiversity net gain have been met.

5.2. In order to achieve the habitat condition set out in the biodiversity calculations, it is recommended that the scrub habitat created on site is planted with at least three native woody species, and a mixture of mature shrubs, young shrubs and saplings are planted. The scrub would also need to be maintained to ensure an absence of non-native or sub-optimal species.

Prepared by:	
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Checked by:	
Ruth Georgiou. BSc, MCIEEM.	Date: 20 th July 2024

6. REFERENCES.

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Appendix I. HABITAT MAP



Site: Nephra Allotments

Date: 18.06.2024

Reference: 240529

Produced by: Jess Mason



APPENDIX II. PROPOSED SITE LAYOUT AND PLANTING PLAN



