

BRITISH STANDARD 5837

TREE SURVEYS ARBORICULTURAL IMPLICATION STUDIES

TPO/PLANNING ADVICE/ PROJECT MANAGEMENT

TREE INVENTORIES AND RISK ASSESSMENTS

WOODLAND MANAGEMENT PLANS

TREE PLANTING SCHEMES

TPO RE-SURVEY



Land at Borrowdale Road, Middleton

Ecological Assessment Report

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1 Introduction

1.1 Background

Kingdom Ecology have carried out an Ecological Assessment of approximately 2ha of amenity land/urban park located adjacent to Borrowdale Road, Middleton, Rochdale, M24 5QG (National Grid Reference SD 8608 0680). Survey has been carried out as part of a proposed planning application to redevelop the site to provide new housing and apartments with associated landscaping and access road.

The purpose of the assessment was to identify any potential ecological constraints to the proposed development and to assess other areas of land outside of the immediate development area, with a view to potentially enhancing their biodiversity value.

The areas of land have been surveyed in the past with a survey of the full site completed on the 20th August 2018 and a survey of part of the site completed on the 2nd May 2021.

The latest field survey was undertaken on 17th January 2023. Surveys were carried out by Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking protected species and habitat surveys as a professional ecological consultant with over twenty years' experience.

1.2 Purpose of Report

This report provides the findings of the previous surveys completed at the site along with the latest field survey undertaken in January 2023.

Surveys aimed to identify habitats and species which are either of importance in terms of their conservation value or are afforded statutory legal protection. The presence of such habitats or species would form a material consideration during the planning process and could pose a constraint to the redevelopment of the site.

The field surveys comprised of an ecological walkover survey with a search for habitats that could support any protected species.

Following a description of the survey findings and an evaluation of habitats at the site, the report goes on to make recommendations for further works, mitigation and ecological enhancement measures where relevant.

1.3 Relevant Legislation

1.3.1 Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

1.3.2 Hedgehog

The European Hedgehog is considered to be a species “of principal importance for the purpose of conserving biodiversity” as listed under section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006 and therefore need to be taken into consideration by a public body (such as a local authority) when performing any of its functions with a view to conserving biodiversity.

1.3.3 Non-native plant species

The Wildlife and Countryside Act 1981 provides the primary control on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to ‘plant or otherwise cause to grow in the wild’ any plant listed in Schedule 9, Part II. Schedule 9 of the act includes Japanese Knotweed, Himalayan Balsam, Montbretia, and Giant Hogweed.

2 Field Survey Methods

2.1 Survey Aims and Objectives

The survey aim was to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Field survey comprised of an Extended Phase 1 Habitat Survey, this included an assessment of habitats at the site in terms of their suitability to support any other protected species including bats, badgers and breeding birds.

Species that are considered unlikely to be significantly affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment.

2.2 Extended Phase 1 Habitat Survey

2.2.1 Methods

An Extended Phase 1 Habitat Survey of the study site was undertaken on the 17th January 2023. Survey was carried out following standard methodologies as described in the *'Handbook for Phase 1 Habitat Survey - a technique for environmental audit'* (JNCC, 2004¹).

The aims of the Extended Phase 1 Habitat Survey were to:

- identify and map all areas of semi-natural habitat within the study area;
- provide a botanical description of the semi-natural habitats surveyed;
- identify areas or habitats that are of particular ecological interest for nature conservation and which require more detailed investigation;
- provide additional information regarding incidental observations of protected species and the potential of habitats to support such species.

¹ JNCC (2004) 'Handbook for Phase 1 Habitat Survey - a technique for environmental audit'

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A habitat map was produced and lists of dominant or notable vascular plant species were recorded in each of the major habitat types where relevant. Typical habitats recorded at the site are also shown in photographs in the Appendix.

January is not an ideal time of year to undertake botanical surveys as some plant species may not be evident or may be more difficult to identify. However, the site has previously been fully surveyed by the author on the 20th August 2018 and partly surveyed on the 2nd May 2021. Therefore, the January 2023 survey allowed broad habitats to again be recorded and allowed confirmation as to whether habitats and management of the site had significantly changed since the completion of the previous surveys.

3 Survey Results

3.1 Site Description

The study area comprises of an approximately 2ha area of amenity parkland and woodland plantation located between Borrowdale Road and Haweswater Drive, Middleton.

The site is located within the town of Middleton. Immediate surrounding habitats are urbanised and comprise principally of residential housing and a school. However, there are other areas of amenity grassland and amenity woodland within relative proximity to the site.

The site comprises of a roughly T-shaped area of mown, amenity grassland with fringes of young plantation woodland, ornamental shrubbery and hedgerow. The site is located in a shallow depression with the surrounding housing and school located at a slightly raised elevation. The site slopes gently down from its northern boundary on Borrowdale Road towards the southern end of the site on Grisedale Drive.

There are some areas of slightly wetter ground at the site which include plant species indicative of marshy grassland habitats. These areas are broadly located near the centre of the site and towards the southern end of the site.

There are a series of hardstanding paths which criss-cross through the site. The site is used regularly by dog walkers and for other recreational activities.

There are patches of Montbretia located in a patch of bramble on the northern boundary of the site (Target Note 8 on Figure 1).

Although a common garden plant, Montbretia (*Crocasmia x crocosmiiflora*) is an invasive non-native species and is listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales therefore, it is an offence to plant or otherwise cause to grow this species in the wild.

Habitats identified at the site are described below.

3.2 Habitats and Protected Species

3.2.1 Habitats

Habitats recorded at the study site are shown on Photographs and target noted on Figure 1 in the Appendix. Target Note descriptions are provided below.

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The habitat descriptions are based upon the combined findings of the 2018, 2021 and 2023 surveys.

Table 1- Habitat Descriptions

Target Note	Habitat	Description
1	Ornamental Shrubbery	There is a band of scrubby, unmanaged, ornamental shrubbery located along the site's northern boundary on Borrowdale Road. The shrubbery comprises of a mix of native and non-native species and includes stands of holly, willow, <i>Viburnum</i> , tree cotoneaster, <i>Pyracantha</i> , <i>Oleaster</i> , hawthorn, box honeysuckle, laurel, privet and bramble. The understorey comprises of bramble and ruderal herbs with nettle, cow parsley, dandelion, common ragwort, spear thistle, silverweed, ribwort plantain and patches of bare ground.
2	Species-poor hedgerow	There is a species-poor hedgerow running along the site's eastern boundary with an adjacent residential complex. The hedgerow comprises of holly, hawthorn, elder and field maple with an understorey of nettle, cleavers and bramble. The hedgerow appears infrequently managed and has grown to approximately 5m in height.
3	Amenity grassland	The grassland at the site is regularly mown and managed to provide amenity habitat. The grassland comprises of abundant Yorkshire fog, with frequent sweet vernal grass, perennial rye-grass and occasional red fescue, meadow foxtail, crested dog's-tail, cock's foot, timothy and soft rush. Herbs present comprise of frequent creeping buttercup and dandelion with occasional broadleaved dock, common ragwort, meadow buttercup and bird's foot-trefoil, with rare silverweed, ribwort plantain, common sorrel and common mouse ear. The grassland is not considered to be of any significant botanical value and supports plant species typical of similar managed urban grassland habitats.
4	Plantation woodland	There is an 8-10m wide band of plantation woodland running along the site's western boundary with the adjacent school. The woodland comprises of mainly young and semi-mature silver birch, with young rowan, hawthorn, beech, alder, cherry and holly. The northern end of the plantation is relatively open and comprises mostly of silver birch. The understorey comprises of patches of rosebay willowherb and bramble with grassy areas in between comprising of abundant Yorkshire fog with occasional meadow foxtail, cock's foot and soft rush.

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<i>Target Note</i>	<i>Habitat</i>	<i>Description</i>
5	Plantation woodland/scrub	There is a patch of dense hawthorn scrub located within this part of the woodland plantation.
6	Plantation woodland	There is a stand of young ash trees with some self-seeded ash saplings located here. There is an understorey of rank grasses around the trees comprising of patches of reed canary-grass with tufted hair-grass, rough meadow-grass, common couch, false oat-grass and cock's foot.
7	Species-poor hedgerow	A further species-poor hedgerow runs along northern boundary of site comprising of field maple with occasional hawthorn, holly, elder, sycamore and privet. There are patches of bramble running along the hedge. The hedgerow forms a boundary between the site and the adjacent gardens of the adjoining apartments.
8	Bramble scrub	At the eastern end of the hedge, there is a patch of dense bramble scrub with nettle and coarse grasses including false oat-grass, cocks foot and reed canary grass. There are patches of woody scrub comprising of young oak, cherry, willow and hawthorn. Amongst the bramble is a small patch of Montbretia. Montbretia is listed under Schedule 9 to the Wildlife and Countryside Act 1981. As such, it is an offence to plant or otherwise allow this species to grow in the wild.
9	Marshy grassland	There is a small area of marshy grassland near the centre of the site with patches of scattered scrub. Scrub comprises of willow and crab apple with bramble. The marshy grassland habitats support similar grassland species as recorded at Target Note 3 with further plant species indicative of wetter habitats including frequent soft rush, articulated rush, creeping buttercup and silverweed with occasional greater bird's-foot trefoil.
10	Plantation woodland	The band of plantation woodland continues along the south-western boundary of site. Trees include semi-mature oak, sycamore, cherry, alder and field maple. The plantation is located on an area of embankment with patches of bramble scrub and holly.
11	Marshy grassland	There is a further area of marshy grassland habitat at the southern end of the site. In 2018, this marsh habitat was unmanaged and so had developed a tall sward of wetland grasses, rushes and herbs. The 2023 survey revealed that the area had been cut back and so its likely that it is at least infrequently managed.

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<i>Target Note</i>	<i>Habitat</i>	<i>Description</i>
12	Plantation woodland	Grasses and rushes present include reed canary-grass, tufted hair-grass, creeping bent, Yorkshire fog, timothy, soft rush, hard rush and compact rush with herbs including creeping buttercup, silverweed, yellow flag-iris and great willowherb. There is a further band of plantation woodland running along the eastern boundary of site. The woodland extends from an adjacent embankment down towards the area of marshy grassland habitat at Target Note 11. The drier woodland at the top of the embankment includes 5 x mature plane trees plus sycamore, cherry, oak and birch. There are self-seeded alder and willow trees within the wetter habitats near the bottom of the embankment. Close to the marsh habitats, the woodland has an understorey of reed canary-grass, tufted hair-grass, great willowherb, yellow flag-iris and hard rush whilst on the embankment the woodland has patches of dense bramble, rosebay willowherb and bare ground.
13	Amenity grassland	Further area of dry, amenity grassland on an area of sloping ground. Plant species comprise principally of perennial rye-grass with Yorkshire fog and red fescue. Herbs include creeping buttercup, common sorrel, daisy and common mouse ear. Two patches of scattered scrub including crab apple.

3.2.2 Protected Species

Trees, hedgerow and shrubbery at the site could be used by nesting birds during the breeding season. Given the habitats present and the site's urban location, it is likely that the site would support only common garden and woodland bird species.

The trees present at the site are all relatively young and have not developed any obvious suitable features for roosting bats (e.g. splits, woodpecker holes, cavities or cervices). It is therefore considered to be unlikely that any bat roosts are present at the site.

Woodland edge habitats are likely to be used by small numbers of pipistrelle bat species as a foraging resource. Given the site's urban location it is unlikely that the site is used by large numbers of bats or by any rarer bat species.

Habitats at the site may be used as a foraging and refuge habitat by hedgehog.

No other protected or notable species are considered likely to be present at the study site.

4 Evaluation and Recommendations

4.1 Summary

The site comprises of an area of regularly mown, urban park which comprises principally of amenity grassland habitat with some areas of marshy grassland within wetter parts of the site.

The site has bands of young plantation woodland, scrub and hedgerow around the site boundaries. The habitats present are mostly artificial in origin, but some small areas of semi-natural habitat have developed at the site. These include the areas of marshy grassland and the rank grasses/tall herb field layers around the blocks of plantation woodland.

The site principally comprises of areas of relatively species-poor, modified grassland habitats. The grassland is largely grass dominated with frequent dandelion and creeping buttercup plus other common herbs.

None of the habitats present are considered to be of any significant biodiversity value as they comprise of habitats and plant species that are of relatively low botanical interest and are commonly occurring throughout the UK.

Whilst the site comprises of habitats of limited botanical interest, the areas of young woodland, hedgerow and scrub are considered to be of minor biodiversity value. These habitats are likely to offer foraging and refuge habitat to common invertebrates, birds, mammals and other associated local wildlife.

The proposed development would be located at the northern end of the site. Development proposals will potentially result in the loss of plantation woodland, scrub, hedgerow and grassland habitats located at Target Notes 1, 2, 3, 6, 7 and 8.

Recommendations for habitat mitigation are provided in Section 4.2.

4.1.1 Non-native Invasive Species

There is a small stand of Montbretia at the site (Target Note 8 on Figure 1). This plant can completely dominate habitat where it grows, sometimes excluding native plant species.

Montbretia is listed under Schedule 9 of the Wildlife and Countryside Act 1981 with respect to England and Wales. As such, it is an offence to plant or otherwise allow this species to grow in the wild.

In order to prevent Montbretia spreading into any new habitats at the site, it is recommended that any stands of the plant are identified during pre-construction surveys and individual clumps are dug up and removed from site to licensed landfill as controlled waste, or dealt with on-site in appropriate waste management areas.

It is recommended that a method statement for the removal and control of montbretia is produced by an appropriately qualified ecologist or invasive species specialist.

4.2 Protected Species Recommendations

4.2.1 Site Clearance

Where proposals would require the removal of trees at the site, this should avoid taking place during the breeding bird season (March-September inclusive).

Where this is not possible, a check for breeding birds should be carried out immediately prior to the start of works by an appropriately qualified ecologist.

If during works any nesting birds are found, works should immediately stop and further advice should be sought from an appropriately qualified ecologist.

Where works would require the clearance of any scrub, hedgerow or woodland, this should be checked first by for the presence of hedgehogs. Any encountered hedgehogs should be moved across to a suitable area of habitat.

It is recommended that any garden fencing at the site is 'hedgehog friendly' with suitable access holes (approximately 15cm x 15cm) retained through the fencing.

Other than breeding birds and hedgehogs, it considered very unlikely that any other protected or notable species would be present at the proposed development site.

4.2.2 Bat and Bird Box Plan

It is recommended that the overall site be enhanced for bats and breeding birds. This can be achieved through the installation of bat boxes (recommended model Habibat 003 or similar) and sparrow nest boxes (model Schwegler 1SP or similar) into proposed buildings at the development site.

The bat and bird boxes can be built into the brick walls of the proposed buildings so as to remain visually unobtrusive.

The precise location, model and number of bat and bird boxes should be determined by an appropriately qualified ecologist.

4.3 Habitat Recommendations

It is recommended that opportunities to enhance the ecological value of the development area are taken with a view to achieve an overall 'biodiversity net gain'.

4.3.1 Biodiversity Net Gain

Biodiversity Net Gain is an approach to development with an objective to leave biodiversity in a better state than before. Net gain policies require that where a development has an impact on biodiversity, developers must provide an increase in appropriate natural habitat and ecological features over and above that being lost.

The Environment Bill, which is currently making its way through Parliament, will make it mandatory that a development must provide a biodiversity net gain.

In order to accurately demonstrate biodiversity net gain and to calculate the extent of mitigation habitat required, it would be necessary to use a Biodiversity Metric Calculator which would examine the impact of the development proposals and any follow-on mitigation measures (whether on-site or off-site). The final development would need to outweigh the existing site in terms of valuable habitats provided in order to achieve a biodiversity net gain.

Metrics use combinations of measurements to provide an assessment of the biodiversity value of a particular site. The metric allows the biodiversity impact of a development to be quantified so that the offset requirement, and the value of the compensatory action, can be clearly defined. Metrics are transferable between sites and habitats, allowing an impact on one habitat type to be offset with conservation action elsewhere, or involving a different habitat type and/or quality of habitat.

The proposed development area offers limited opportunities to provide any significant compensation habitat owing to the small size of the site. However, there may be other opportunities available to provide some enhancement of the retained areas of amenity parkland located immediately to the south of the site (see Section 4.3.4).

Nevertheless, some on-site biodiversity enhancements could be included to improve the overall ecological value of the proposed development. Suitable small-scale biodiversity enhancements are outlined below.

4.3.2 New Hedgerows

It is recommended, that new lengths of species-rich hedgerow are planted around the proposed development area to help offset the loss of any scrub habitat and to enhance the ecological value of the development proposal. New native tree planting should also aim to partially offset for the loss of woodland habitats. New hedgerows and trees could be planted along the new site boundaries.

New hedgerows should comprise principally of hawthorn with blackthorn, hazel, holly, elder, oak and dog rose included in the species mix. It is also recommended that larger standard trees are planted along the hedge lines where possible.

4.3.3 Plants for Pollinators and Birds

The development proposals should also aim to maximise the biodiversity of any landscaping proposals at the site.

The development will largely comprise of new housing with associated gardens, roads and hardstanding. However, the landscaping design for the development will likely include new trees and planting. It is recommended that new planting includes species which can provide nectar sources for insects and berries/fruits for invertebrates and birds.

The following small/medium sized tree species are recommended as they offer suitable foraging opportunities to various native wildlife (including birds and invertebrates): rowan, wild cherry, crab apple, silver birch, holly, and willow.

Areas of new shrubbery should include suitable nectar sources for insects. The Royal Horticultural Society provides a list of suitable plants for invertebrates (see rhs.org.uk/plantsforpollinators). It is recommended that this list is consulted when producing detailed landscaping designs for the site.

4.3.4 Enhancement of Amenity Land to the south of the Development

Other opportunities to enhance the biodiversity of the site could be taken through habitat creation within the retained area of parkland to the south of the proposed development area. This could include the creation of wildlife ponds within the areas of marshy ground located around Target Notes 9 and 11.

Habitats around any ponds could be allowed to develop into taller marsh habitats as opposed to being regularly cut short (current management practice at the site). Species diversity in these marsh areas could be enhanced with additional sowing of wetland wildflower seed (e.g. Emorsgate EM8- Meadow Mixture for Wetlands) around the fringes of newly created wetland features.

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Further areas of wildflower grassland can be created on dry areas of grassland habitat at the site including the existing area of species-poor amenity grassland at Target Note 13.

Any proposed wildflower meadow area should be appropriately prepared and should be sown with a suitable wildflower seed mix (e.g. Emorsgate EM1).

The meadow area should be cut in late summer and all clippings should be removed to avoid putting nutrients back in to the soil. A further cut can be taken again in late Autumn/Winter.

Areas required as short sward amenity grassland around footpaths etc can be enhanced by over-sowing with flower species which are tolerant of frequent mowing and trampling, thereby providing cover and nectar sources for insects. Suitable species include bird's-foot trefoil, common cat's-ear, yarrow, creeping cinquefoil, lady's bedstraw and black medick.

Spring flowering bulbs of nectar-rich flowering plants can also be embedded into amenity grassland and woodland edge habitats to increase the biodiversity and amenity value of the grassland and to provide early sources of nectar for insects. Suitable species include ramsons, snowdrop, primrose, bluebell, wild daffodil and lesser celandine.

It is recommended that an appropriately qualified ecologist is consulted when producing the landscaping proposals for the site.

5 Appendix

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PHOTOGRAPHS

Photograph 1 - Habitats at Target Notes 2, 3 and 4 (January 2023)



Photograph 2 - Habitats at Target Notes 9 and 13 (January 2023)



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Photograph 3 - Habitats at Target Notes 6, 7 and 9 (January 2023)



Photograph 4 - Habitats at Target Notes 11 and 12 (January 2023)



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Photograph 5 - Habitats at Target Note 3 (January 2023)



Photograph 6 - Habitats at Target Note 9 (January 2023)



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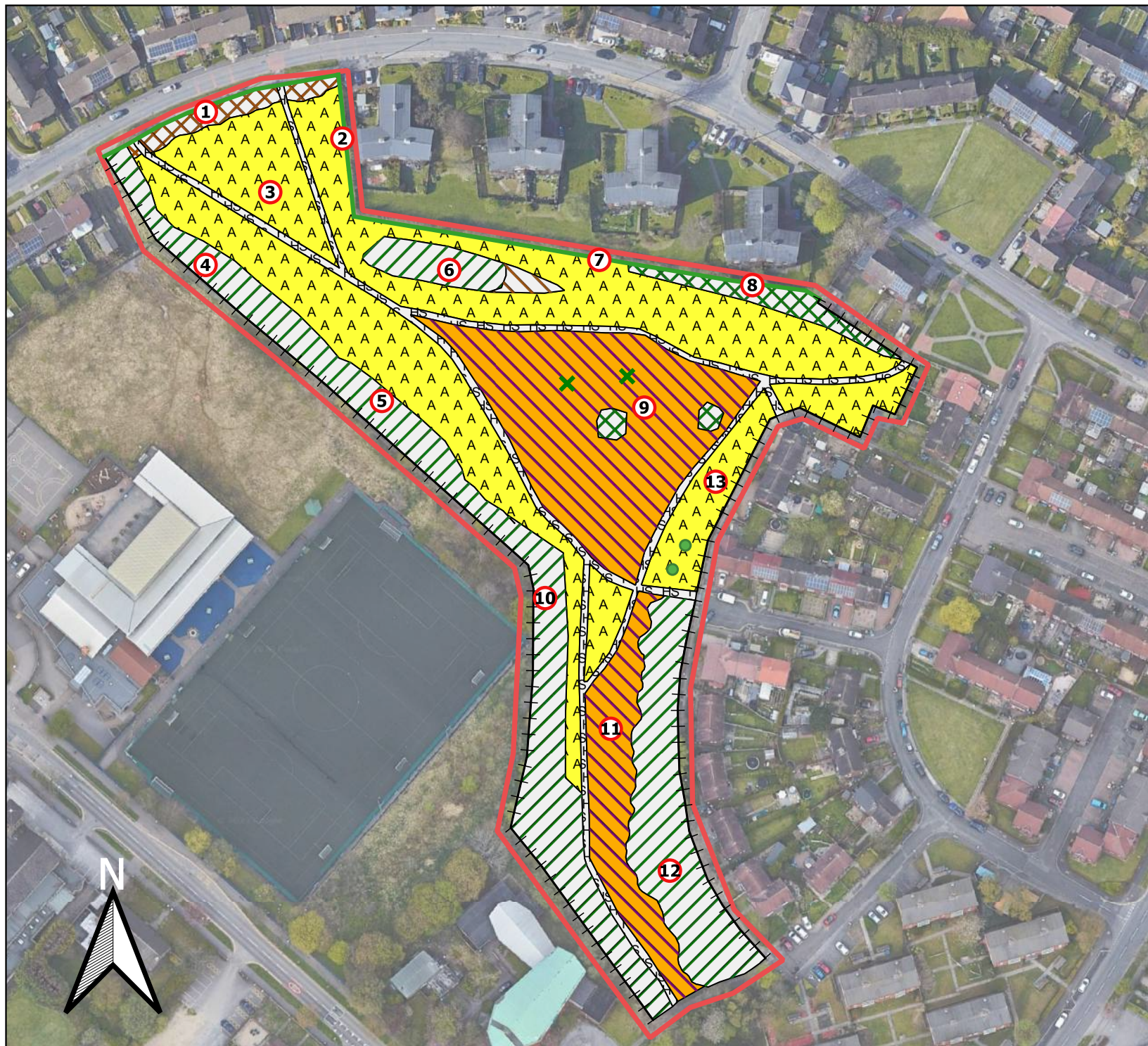
Photograph 7 - Habitats at Target Note 3 (August 2018)



Photograph 8 - Habitats at Target Note 11 (August 2018)



Figure 1- Habitat Survey Plan



- Study site
- Target Note
- Hedge - species-poor
- Fence
- Scattered trees
- ✕ Scattered scrub
- Plantation woodland
- Continuous scrub
- Marshy grassland
- Ruderal/ tall herb
- Amenity grassland
- Introduced shrub
- HS
HS
HS
HS Hardstanding

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