

## APPENDIX B

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### AGEAS BOWL REDEVELOPMENT, EASTLEIGH

### UK HABITAT CLASSIFICATION SURVEY TECHNICAL NOTE

## 1 INTRODUCTION

This Technical Note provides a baseline description of the habitats present within the Ageas Bowl and Boundary Lakes Golf Club (hereafter referred to as the Site, shown as Figure 1), drawing on current and historical field surveys.

The aim of the current survey was to update the historic baseline and re-classify habitats from Phase 1 Habitat Classification types into the UK Habitat Classification system, which is the baseline habitat survey required to calculate Biodiversity Net Gain. The results of the survey will inform an Ecological Impact Assessment (EclA) of redevelopment proposals and any necessary mitigation and/or further enhancement measures that may be required to achieve at least No Net Loss of biodiversity as a result of the redevelopment proposals for the Site.

Figure 1: Site Location



## 2 METHODOLOGY

### 2.1 SITE SURVEY

A habitat survey of the Site was undertaken on the 7<sup>th</sup> & 14<sup>th</sup> May 2020 and updated on the 7<sup>th</sup> September 2021 by experienced ecologist and botanical specialist Katherine Newbert BSc (Hons) MSc from Johns Associates Ltd. The weather was dry and bright with good visibility during all surveys. The habitat survey was completed in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and BS 42020:2013 Biodiversity - Code of practice for planning and development (British Standards Institute, 2013).

### 2.2 UKHAB SURVEY

The on-Site habitats were classified following UK Habitat Classification (UKHab) (2020) guidelines, which provides a more detailed interpretation of baseline habitat survey data than previous habitat classifications systems, such as Phase 1 Habitat assessments.

The professional edition of UKHab "UK Habitat Classification – Professional Edition" (UKHab-P) was used which includes Priority Habitat Types, all Annex 1 Habitats and the habitats listed in EUNIS. The classification of primary habitats is hierarchical with five levels, which include terrestrial/ freshwater/ marine, ecosystem types, broad habitats, priority habitats and Annex 1 habitats.

Habitat types were assigned a primary code to a hierarchical level of at least three, and secondary codes were used to further clarify the habitat and record additional information linked to the primary habitat such as habitat management. The full range of secondary codes following UKHab-P will be used as necessary, which are grouped under the following headings of which the first three listed are considered mandatory sections:

- Habitat Mosaics (10 - 18)
- Habitat Complexes (19 – 32)
- Origin (33 – 49)
- Management (51 – 85)
- Land Use (86 – 116)
- Environmental Qualifier (117 – 138)
- Species Feature (139 – 166)
- Hydrological Regime (167 – 199)
- Green Infrastructure (200 – 1232) - The Green Infrastructure section is numbered from 200 upwards. As this section is hierarchical, the first level of the GI hierarchy goes up in hundreds (200, 300 etc.), the second in tens (210, 220 etc.) and the third in ones (211, 212 etc.).

During the UKHab survey the condition of the habitats found within the site will be individually assessed using the habitat condition assessment criteria defined by DEFRA.

Where appropriate, maps are supplemented with target notes which provide specific information on habitats present that are too limited in extent to map at the scale at which data is presented, or the presence of species and habitats of ecological interest.

An annotated habitat map together with descriptions of the recorded habitat types was produced, which was subsequently digitized using a geographical information system (ArcGIS). The survey also included identification of any non-native invasive plant species. Flora taxonomy follows the nomenclature detailed in New Flora of the British Isles (4th Edition) (Stace C., 2019). Flora, where appropriate, are given a descriptive score of abundance using the DAFOR scale, as follows:

- D – Dominant
- A – Abundant
- F – Frequent
- O – Occasional
- R – Rare
- L – Locally (to be used as a prefix for any of the above)
- V – Very (to be used as a prefix for any of the above)

### 2.2.1 ArcGIS Symbology

At the time of production, a complete symbology for all habitats in the UK Habitat Classification Professional Edition (UKHab-P) was not available. The UK Habitat Classification Basic Edition (UKHab-B) symbology has therefore been used, and where necessary to add in habitats not included in UKHab-B we have designed our own hatching system within the Level 2 colours for those habitats – following the guidance provided in the UK Habitat Classification Basic Edition: Suggested Symbology for Maps document (UKHab, 2020).

## 3 HABITATS

### 3.1 OVERVIEW

The Ageas bowl site mainly comprises a heavily managed golf course. The main habitats are amenity grassland and semi-improved neutral grassland, the Site has been re-landscaped and the areas of greens and rough have been re-seeded and as such these habitats have a variety of species present due to the wildflower seed mixes used and are not completely natural in occurrence.

### 3.2 GRASSLAND

#### 3.2.1 Modified Grassland – g4 – 11, 66, 75, 117 and 540

The main habitat type within the Site was grassland that had been sown to provide a suitable playing surface and amenity grass areas around the stadium, hotel and car parking. This habitat was classified as modified grassland due to the low species diversity with less than 9 species per square metre and the grassland management, in particular the fairways tees and greens were kept very closely mown (see TN2).

The seed mixtures used in these areas were species poor and dominated by finer leaved grass species such as red fescue *Festuca rubra*, annual meadow grass *Poa annua*, perennial ryegrass *Lolium perenne* and common bent *Agrostis capillaris*. Forb species rarely occurred and were limited to daisy *Bellis perennis*, white clover *Trifolium repens* and common yarrow *Achillea millefolium* (see TN2). These closely mown areas graded out (in the edges and middle of the fairways with various maintained sward heights) into areas of neutral grassland (g3c).

Around TN1 was a large area of modified grassland with many young trees planted across this area still in protective tree guards.

Table 3.1: Modified Grassland – G4

| Common Name         | Scientific Name                 | Abundance (DAFOR) |
|---------------------|---------------------------------|-------------------|
| Annual meadow grass | <i>Poa annua</i>                | A                 |
| Perennial ryegrass  | <i>Lolium perenne</i>           | A                 |
| Tall fescue         | <i>Schedonorus arundinaceus</i> | VLA               |
| Common bent         | <i>Agrostis capillaris</i>      | F                 |
| Daisy               | <i>Bellis perennis</i>          | O                 |
| White clover        | <i>Trifolium repens</i>         | O                 |
| Common yarrow       | <i>Achillea millefolium</i>     | O                 |
| Cat's-ear           | <i>Hypochaeris radicata</i>     | R                 |

### 3.2.2 Other Neutral Grassland g3c – 11, 64, 75, 540

This habitat type was mainly derived from species diverse seed mixes that were used when the land was re-landscaped around the Ageas bowl stadium. Because of this, the species composition is not entirely of natural origin but due to the species diversity in many of these areas the closest UKHab classification habitat type is other neutral grassland. Occasionally there were scattered amenity trees planted within these habitat areas. The grassland was still mown but not managed as frequently as areas of modified grassland which had allowed areas to flower and set seed thereby creating a more diverse sward.

This grassland had a greater mixture of grass species including Yorkshire fog *Holcus lanatus* which was abundant in the sward. Sweet vernal grass *Anthoxanthum odoratum*, red fescue, creeping bent *Agrostis stolonifera*, rough stalked meadow grass *Poa trivialis* and Cock's-foot *Dactylis glomerata* all occurred frequently throughout the sward. Forb species were more diverse than in the nearby areas of modified grassland with species such as lesser stitchwort *Stellaria graminea*, Cut-leaved Crane's-bill *Geranium dissectum*, grass vetchling *Lathyrus nissolia*, Oxeye daisy *Leucanthemum vulgare*, common vetch *Vicia sativa* and ribwort plantain *Plantago lanceolata* all occurring within the sward. In some areas creeping thistle *Cirsium arvense* was becoming locally abundant.

Table 3.2: Neutral Grassland g3c

| Common Name                | Scientific Name                           | Abundance (DAFOR) |
|----------------------------|-------------------------------------------|-------------------|
| Yorkshire fog              | <i>Holcus lanatus</i>                     | A                 |
| Red fescue                 | <i>Festuca rubra</i>                      | A                 |
| Tall fescue                | <i>Schedonorus arundinaceus</i>           | VLA               |
| Creeping thistle           | <i>Cirsium arvense</i>                    | LA                |
| Rough stalked meadow grass | <i>Poa trivialis</i>                      | F                 |
| Creeping bent              | <i>Agrostis stolonifera</i>               | F                 |
| White clover               | <i>Trifolium repens</i>                   | F                 |
| Dandelion                  | <i>Taraxacum officinalis</i> agg.         | F                 |
| Cut leaved cranes bill     | <i>Geranium dissectum</i>                 | F                 |
| Daisy                      | <i>Bellis perennis</i>                    | F                 |
| Common mouse ear           | <i>Cerastium fontanum</i>                 | F                 |
| Red clover                 | <i>Trifolium pratense</i>                 | F                 |
| Creeping buttercup         | <i>Ranunculus repens</i>                  | F                 |
| Common vetch               | <i>Vicia sativa</i>                       | F                 |
| Wild carrot                | <i>Daucus carota</i> subsp. <i>carota</i> | F                 |
| Ox-eye daisy               | <i>Leucanthemum vulgare</i>               | F                 |
| Black medick               | <i>Medicago lupulina</i>                  | F                 |
| Cat's-ear                  | <i>Hypochaeris radicata</i>               | F                 |
| Sweet vernal grass         | <i>Anthoxanthum odoratum</i>              | F                 |
| Ribwort plantain           | <i>Plantago lanceolata</i>                | F                 |
| Germander speedwell        | <i>Veronica chamaedrys</i>                | F                 |
| Sainfoin                   | <i>Onobrychis viciifolia</i>              | LO                |
| Grass vetchling            | <i>Lathyrus nissolia</i>                  | LO                |
| Hairy bittercress          | <i>Cardamine hirsuta</i>                  | O                 |
| Common birds foot trefoil  | <i>Lotus corniculatus</i>                 | O                 |
| Broad leaved dock          | <i>Rumex obtusifolius</i>                 | O                 |
| Common sorrel              | <i>Rumex acetosa</i>                      | O                 |
| Thyme leaved speedwell     | <i>Veronica serpyllifolia</i>             | O                 |
| Lesser trefoil             | <i>Trifolium dubium</i>                   | O                 |
| Bristly oxtongue           | <i>Helminthotheca echinoides</i>          | O                 |
| Spotted medick             | <i>Medicago arabica</i>                   | O                 |
| Hairy tare                 | <i>Vicia hirsuta</i>                      | O                 |
| Spear thistle              | <i>Cirsium vulgare</i>                    | O                 |
| Common knapweed            | <i>Centaurea nigra</i>                    | O                 |
| Wall speedwell             | <i>Veronica arvensis</i>                  | O                 |
| Lesser stitchwort          | <i>Stellaria graminea</i>                 | R                 |
| Hard rush                  | <i>Juncus inflexus</i>                    | R                 |
| Changing forget-me-not     | <i>Myosotis discolor</i>                  | R                 |

### TN1 – g3c - 10, 16, 56, 76, 161

There were various areas of tall ruderal vegetation around the site where vegetation was left unmanaged. The largest area of tall ruderal vegetation was to the north-west of the site near TN1. The banks sloping down to the tree line appeared to have been left unmanaged for a couple of years. Species abundance across this area included spear thistle *Cirsium vulgare*, bristly oxtongue *Helminthotheca echioides*, green alkanet *Pentaglottis sempervirens*, tall fescue *Schedonorus arundinaceus* and broad-leaved dock *Rumex obtusifolius*. In some areas gorse *Ulex europaeus* and common broom *Cytisus scoparius* were starting to establish. It appeared that the banks had been previously seeded with wildflower seed mixes as species such as kidney vetch *Anthyllis vulneraria* and sainfoin *Onobrychis viciifolia* occurred infrequently where the tall ruderal vegetation wasn't as dense and the ground slightly more open in patches.

Table 3.3: Neutral grassland – g3c – 10, 16, 56, 76, 161

| Common Name       | Scientific Name                           | Abundance (DAFOR) |
|-------------------|-------------------------------------------|-------------------|
| Broad leaved dock | <i>Rumex obtusifolius</i>                 | A                 |
| Tall fescue       | <i>Schedonorus arundinaceus</i>           | A                 |
| Bristly oxtongue  | <i>Helminthotheca echioides</i>           | A                 |
| False oat-grass   | <i>Arrhenatherum elatius</i>              | A                 |
| Common nettle     | <i>Urtica dioica</i>                      | F                 |
| Green alkanet     | <i>Pentaglottis sempervirens</i>          | F                 |
| Wild carrot       | <i>Daucus carota</i> subsp. <i>carota</i> | O                 |
| Ribwort plantain  | <i>Plantago lanceolata</i>                | O                 |
| European gorse    | <i>Ulex europaeus</i>                     | O                 |
| Common broom      | <i>Cytisus scoparius</i>                  | O                 |
| Ribbed melilot    | <i>Melilotus officinalis</i>              | O                 |
| Ox-eye daisy      | <i>Leucanthemum vulgare</i>               | O                 |
| Kidney vetch      | <i>Anthyllis vulneraria</i>               | R                 |
| Sainfoin          | <i>Onobrychis viciifolia</i>              | R                 |

### TN3 – g3c – 10, 14, 16, 77 and 119

This area of grassland was present in a lower lying area which was seasonally wet and as a result had a range of species frequently found in wetter habitats such as hemlock water dropwort *Oenanthe crocata*, soft rush *Juncus effusus*, common fleabane *Pulicaria vulgaris*, hoary willow herb *Epilobium parviflorum* and sedges such as pendulous sedge *Carex pedula* and grey sedge *Carex divulsa* subsp. *divulsa*.

### TN4 - g3c – 16 and 76

An area of tall ruderal vegetation that has developed near the green keepers area where piles of grass clippings are being deposited increasing nutrient levels creating stands mainly comprised of nettle *Urtica dioica* and cleavers *Galium aparine*.

### 3.2.3 Bracken – g1c

Small areas of bracken stands are present in the south-western corner of the Site which borders Telegraph woods and transition into frequently mown modified grassland. The only other species growing in these areas were bramble and nettle which both occurred occasionally.

## 3.3 SCRUB HABITATS

### 3.3.1 Bramble scrub – h3d

Bramble scrub was a very restricted habitat only found on the edges of the Site near the north-eastern and north-western boundaries. This is due to the overall highly managed nature of the Site so dense stands of bramble have no opportunity to become established.

## 3.4 WOODLAND

A range of woodland types were present throughout the Ageas Bowl site including natural/ semi natural and plantation woodland.

### 3.4.1 Other lowland mixed deciduous woodland – w1f7 - 37, 55 and 147

On the western boundary was the edge of Telegraph woods which is a large expanse of lowland mixed deciduous woodland identified on the Priority Habitat Inventory for broadleaved woodland on Magic maps. Telegraph Woods is designated as a Site of Importance for Nature Conservation (SINC).

This semi-natural woodland was dominated by mature oaks *Quercus robur*, beech *Fagus sylvatica*, hazel *Corylus avellana*, sweet chestnut *Castanea sativa*, rowan *Sorbus aucuparia* and birch species *Betula pendula* and *Betula pubescens*. Only the edge of Telegraph Woods is located within the Site boundary.

### 3.4.2 Other broadleaved woodland types – w1g7- 37, 76

Other areas of broadleaved woodland around the Ageas Bowl site were classified as other broadleaved woodland types w1g7 that had occasional naturally occurring oak trees but otherwise had a range of other planted species such as poplars, including Lombardy poplar *Populus nigra 'italica'*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus* and willow species *Salix sp.*

### 3.4.3 Other woodland; Mixed; mainly coniferous – w1h6 - 36

There was an area of mainly coniferous plantation woodland located around a car park in the north of the Site. The canopy was dominated by Scot's pine *Pinus sylvestris* with sycamore *Acer pseudoplatanus* occurring occasionally, sweet chestnut *Castanea sativa* occurred rarely. During the most recent survey visit it appeared that some clearance works had taken place and habitat piles had been created within the woodland from logs and brash. As a result, the understory was generally sparse and open with occasional plants of hawthorn and hazel occurring. Equally the ground flora was sparse and predominantly covered with ivy *Hedera helix*, bracken *Pteridium aquilinum* and nettle *Urtica dioica* with ground ivy *Glechoma hederacea* occurring rarely.

#### 3.4.4 Line of trees – w1g6 - 36

A line of planted trees was noted near the entrance of the Site on north-western boundary; species included goat willow *Salix caprea*, common lime *Tilia × europaea*, ash *Fraxinus excelsior* and silver birch *Betula pendula*. Some scrub was present in front of the trees which included bramble *Rubus fruticosus* and dogwood *Cornus sanguinea*.

The roads leading around the Ageas Bowl are lined with planted London plane *Platanus x acerifolia* trees to provide visual amenity within the Site.

#### 3.4.5 Scattered Trees

Throughout the Ageas Bowl site occasional scattered trees occurred, which included a few mature oak *Quercus robur*. However, the majority were younger planted specimens such as birch *Betula pendula*, rowan *Sorbus aucuparia*, London plane and monkey puzzle tree *Araucaria araucana*.

### 3.5 HEDGEROWS

#### 3.5.1 Hedgerow – h2

Around the main Ageas Bowl entrance and car parking was amenity planted hedging. Species included a mix of hornbeam *Carpinus betulus*, hawthorn *Crataegus monogyna*, dogwood *Cornus sanguinea*, blackthorn *Prunus spinosa*, hazel *Corylus avellana* and Wilson's honey suckle *Lonicera nitida*.

### 3.6 FRESHWATER HABITATS

#### 3.6.1 Eutrophic standing water – r1a

Within the Site boundary were two large man-made irrigation ponds created as part of the golf course landscaping.

##### Pond 1 - SU 47958 14175

This pond was the first in a series of three interconnecting ornamental ponds (1, 2 & 3).

The aquatic vegetation was very minimal due to the landscaping features of large rocks placed around the pond edges.

A range of Waterfowl were observed using these aquatic habitats such as moorhen, mallards and gulls. Overall, the water quality was poor and very turbid.

##### Pond 2 - SU 48028 14187

Pond 2 was artificially fed by water from Pond 1. This pond fed into a further pond (3) which is located outside of the Site boundary.

Pond 2 also had limited aquatic vegetation due to the large rock landscaping features surrounding the pond edges.

A range of waterfowl were observed using these aquatic habitats such as moorhen, mallards and gulls. Overall, the water quality was poor and very turbid in condition.

#### 3.6.2 Rivers and streams – r2

A small stream was present under a line of trees along the northern Site boundary. The banks of the stream were mostly maintained as close cut grassland on the southern bank, however a few species indicative of wetter conditions were present occasionally along the banks, including hairy sedge *Carex hirta*, common fleabane *Pulicaria dysenterica* and

great willowherb *Epilobium hirsutum*. The stream has previously been culverted and re-channelled as part of a previous planning application and the watercourse no longer follows its natural course.

### 3.7 MANMADE URBAN HABITATS

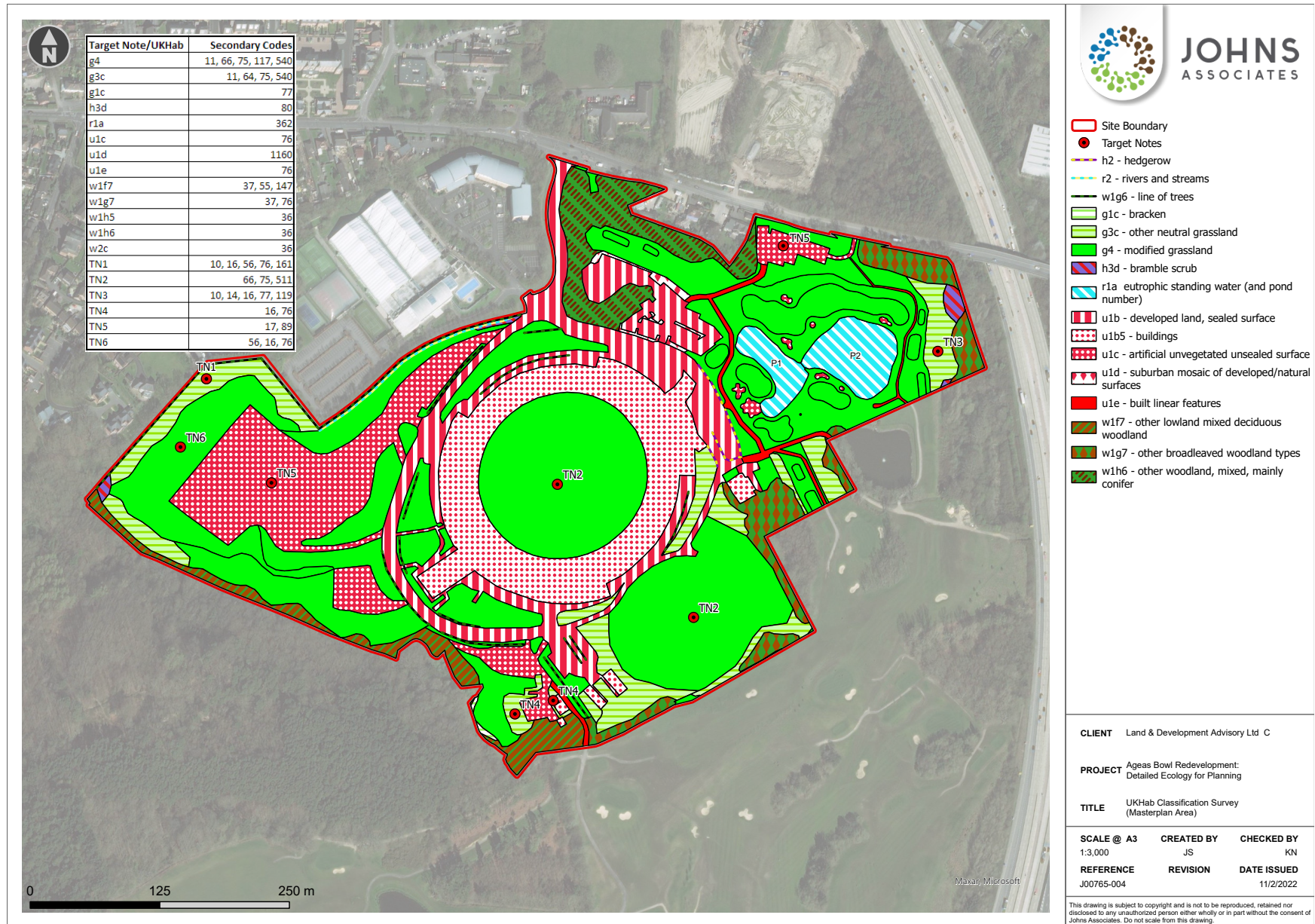
#### 3.7.1 Built urban habitats– u1b, u1b5, u1c, u1d and u1e

Large areas of the Site comprised artificial manmade habitats such as buildings mapped as u1b5 and large expanses of developed land, sealed surfaces such as roads mapped as u1b. These areas were all well maintained.

There were also large areas of artificial unvegetated, unsealed surface u1c; one area to the west of the Site (TN5 to west) was a large area of geotextile matting and gravel forming an overflow car parking area, currently used as the park and ride facility servicing the Ageas Bowl stadium. There were occasional patches of Canadian fleabane *Erigeron canadensis*, bristly oxtongue *Helminthotheca echioides*, common knotgrass *Polygonum aviculare* and ribwort plantain *Plantago lanceolata*.

Introduced shrubs had been planted around the car park to the north of the Ageas Bowl stadium: these habitats are shown as habitat code u1d.

Figure 2: UKHab Map



## 4 DEFRA BIODIVERSITY METRIC 3.0 ASSESSMENT RESULTS

A summary of the Biodiversity Net Gain calculations is given in Table 4.1 Baseline Habitat, Table 4.2 Baseline Hedgerow Habitat and Table 4.3 Baseline River Habitat. The overall On-site Baseline Habitat Units are 44.98 Units, the On-site Baseline Hedgerow Units are 2.77 and the On-site Baseline River Units are 1.70.

The On-site Post-Intervention Habitat Units are 61.69 Units, the On-site Post-Intervention Hedgerow Units are 5.95 and the On-site Post-Intervention River units are 1.10 although the on-site stream is being redirected within the development proposals and will result in a minor loss.

There is a positive 37.14% Total Net increase in Habitat Units and a 114.48% Total Net increase of Hedgerow Units, however there is a negative -35.20% Total Net loss in river units. However, the stream has previously been re-directed and culverted through the site as part of a previously planning application and is not in its natural state.

Table 4.1: Baseline Habitats

| Habitat Type                                           | Area (Ha)     | Condition   | Total Habitat Units | Units Retained/Enhanced | Units Lost   |
|--------------------------------------------------------|---------------|-------------|---------------------|-------------------------|--------------|
| Grassland – Bracken                                    | 0.2           | Poor        | 0.40                | 0                       | 0.40         |
| Grassland – Modified Grassland                         | 11.095        | Poor        | 22.19               | 13.58                   | 8.61         |
| Grassland - Other neutral grassland                    | 1.896         | Poor        | 7.58                | 3.31                    | 4.27         |
| Heathland and shrub - Bramble scrub                    | 0.098         | Poor        | 0.39                | 0.22                    | 0.17         |
| Lakes – Ornamental Lakes or Ponds                      | 0.735         | Poor        | 1.47                | 0.92                    | 0.55         |
| Urban – developed land, sealed surface                 | 3.002         | N/A - Other | 0                   | 0                       | 0            |
| Urban – developed land, sealed surface, buildings      | 2.671         | N/A – Other | 0                   | 0                       | 0            |
| Urban – Artificial unsealed surface                    | 2.829         | N/A – Other | 0                   | 0                       | 0            |
| Urban - Introduced shrub                               | 0.085         | Poor        | 0.17                | 0                       | 0.17         |
| Urban – Built linear feature                           | 0.255         | N/A – Other | 0                   | 0                       | 0            |
| Woodland and forest – Lowland mixed deciduous woodland | 0.443         | Moderate    | 5.32                | 5.32                    | 0            |
| Woodland and forest – Other woodland: Broadleaved      | 0.89          | Poor        | 3.56                | 3.56                    | 0            |
| Woodland and forest – Other woodland: Mixed            | 0.975         | Poor        | 3.90                | 2.74                    | 1.16         |
| <b>Total</b>                                           | <b>25.174</b> | <b>-</b>    | <b>44.98</b>        | <b>29.65</b>            | <b>15.33</b> |

Table 4.2: Baseline Hedgerow Habitats

| Hedgerow Type   | Length Km    | Condition | Total Hedgerow Units | Units Enhanced | Units Lost  |
|-----------------|--------------|-----------|----------------------|----------------|-------------|
| Line of Trees   | 1.231        | Poor      | 2.46                 | 0              | 0.16        |
| Native Hedgerow | 0.214        | Poor      | 0.31                 | 0              | 0.03        |
| <b>Total</b>    | <b>1.386</b> | <b>-</b>  | <b>2.77</b>          | <b>0</b>       | <b>0.19</b> |

Table 4.3: Baseline River Habitats

| River Type               | Length Km    | Condition | Total River Units | Units Enhanced | Units Lost  |
|--------------------------|--------------|-----------|-------------------|----------------|-------------|
| Other Rivers and Streams | 0.416        | Poor      | 1.70              | 0              | 1.03        |
| <b>Total</b>             | <b>0.416</b> | <b>-</b>  | <b>1.70</b>       | <b>0</b>       | <b>1.03</b> |

Table 4.4, Table 4.5 and Table 4.6 provide a summary of the net changes in habitat, hedgerows and rivers across the development Site, considering the new areas of habitat enhancement and creation set out in the Proposed UKHab Plan, see Figure 3. The percentage increase meets the requirement for measurable net gain as a result of proposed development outlined within the NPPF 2019 and exceeds the 10% Biodiversity Net Gain that is a requirement of the Environment Act 2021 from 2023.

Table 4.4: Habitat Creation and Enhancement Units Delivered

| Habitat Type                                     | Area (Ha)      | Condition   | Total Habitat Units Created | Total Habitat Enhanced |
|--------------------------------------------------|----------------|-------------|-----------------------------|------------------------|
| Grassland – Other Neutral Grassland              | 4.245          | Moderate    | 16.80                       | 10.76                  |
| Grassland – Modified Grassland                   | 0.344          | Moderate    | 1.19                        | 0                      |
| Woodland and Forest – Other Woodland Broadleaved | 0.068          | Moderate    | 0.32                        | 0                      |
| Lakes – Ornamental Lake or Pond                  | 0.005          | Moderate    | 0.02                        | 0                      |
| Urban – Vegetated Garden                         | 0.887          | Poor        | 1.71                        | 0                      |
| Urban – Developed Land, Sealed Surface           | 5.22           | N/A – Other | 0                           | 0                      |
| Urban – Developed Land, Sealed Surface buildings | 0.963          | N/A – Other | 0                           | 0                      |
| Urban – Introduced Shrub                         | 0.574          | Poor        | 1.11                        | 0                      |
| Urban – Built Linear Features                    | 0.016          | N/A – Other | 0                           | 0                      |
| Urban – Street Tree                              | 0.3821         | Moderate    | 1.17                        | 0                      |
| Urban – Green Roof                               | 0.256          | Moderate    | 0.92                        | 0                      |
| Wetland – reedbeds/Marginal Aquatic Vegetation   | 0.241          | Moderate    | 1.51                        | 0                      |
| <b>Total</b>                                     | <b>11.4661</b> | <b>-</b>    | <b>24.75</b>                | <b>10.76</b>           |

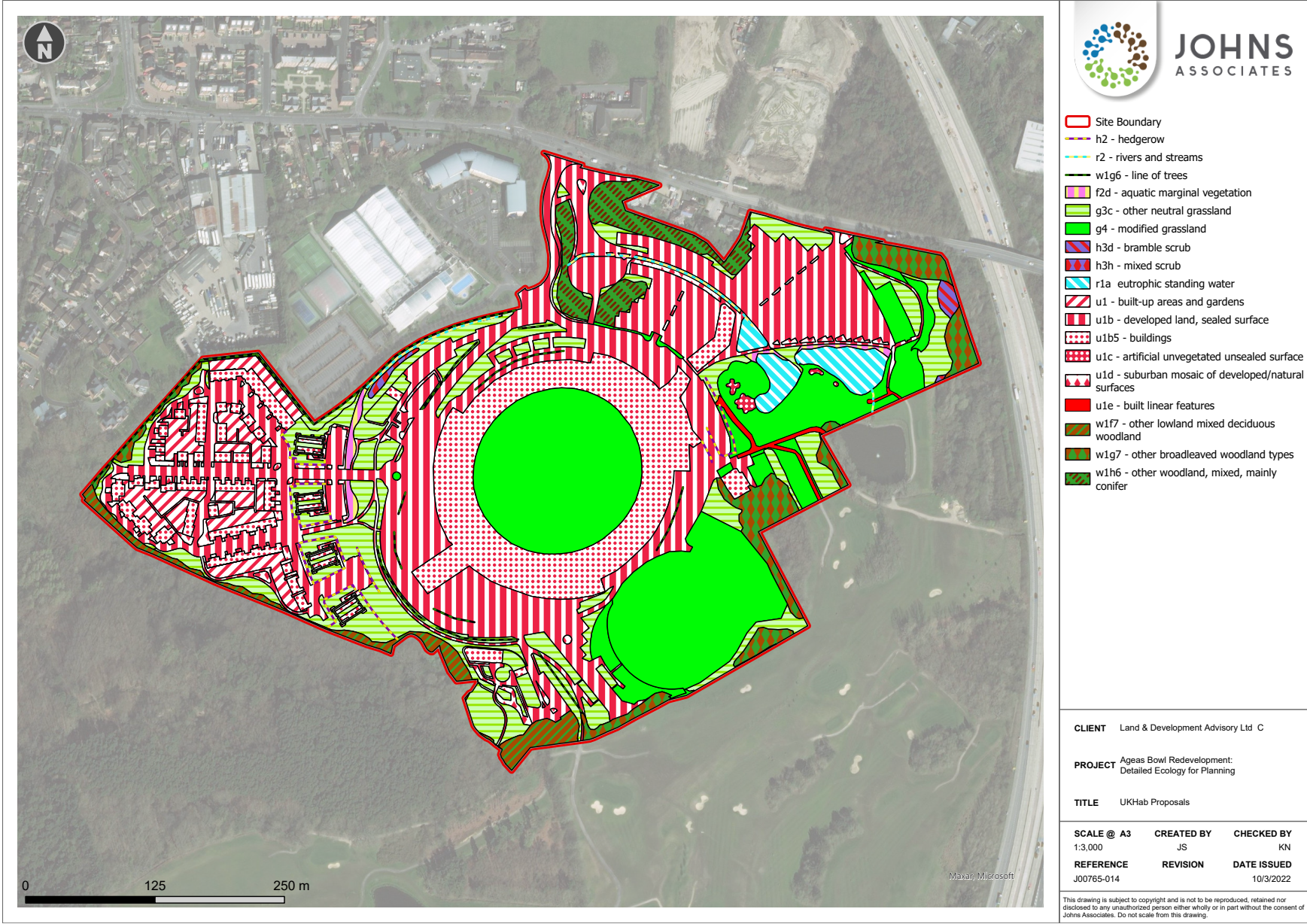
Table 4.5: Hedgerow Habitat Creation and Enhancement

| Hedgerow Type                | Length Km    | Condition | Total Hedgerow Units Created | Total Hedgerow Units Enhanced |
|------------------------------|--------------|-----------|------------------------------|-------------------------------|
| Native Species Rich Hedgerow | 0.503        | Moderate  | 3.37                         | 0                             |
| <b>Total</b>                 | <b>0.503</b> | <b>-</b>  | <b>3.37</b>                  | <b>0</b>                      |

Table 4.6: River Habitat Creation and Enhancement

| River Type               | Length Km    | Condition | Total River Units Created | Total River Units Enhanced |
|--------------------------|--------------|-----------|---------------------------|----------------------------|
| Other rivers and streams | 0.171        | Moderate  | 0.43                      | 0                          |
| <b>Total</b>             | <b>0.171</b> | <b>-</b>  | <b>0.43</b>               | <b>0</b>                   |

Figure 3: Proposed UKHabs Plan



## 5 SUMMARY

The Site supports areas of w1f7 - other lowland mixed deciduous woodland which is classified as lowland mixed deciduous woodland under both the UK BAP Priority Habitats and S41 of the Natural Environment and Rural Communities (NERC) act (UK Government, 2006) where it is listed as a Priority Habitat and a Habitat of Principal Importance respectively. This woodland is considered to be of relatively high ecological value. Other woodland habitats were present within the Site, and mainly consisted of plantation woodland of lower ecological value.

The other habitats present within the Site, (mainly grassland), are considered to be common and ubiquitous habitats of low intrinsic botanical and biodiversity value.

The ponds within the Site are man-made, used as irrigation ponds and are all interlinked within no natural flow. The ponds do not meet any of the criteria listed in the UK Biodiversity Action Plan Priority Habitat descriptions for Ponds which includes: the absence of species listed as Red Data Book species, UK BAP species, species fully protected under the Wildlife and Countryside Act Schedule 5 and 8, Habitats Directive Annex II species, Nationally Scarce wetland plant species or three Nationally Scarce aquatic invertebrate species. Due to the reasons previously listed the ponds on Site cannot be classified as priority habitat.

No notable plants or invasive plant species were observed within the Site boundary at the time of survey.

There is a positive 37.14% Total Net increase in Habitat Units and a 114.48% Total Net increase of Hedgerow Units, however there is a negative -35.20% Total Net loss in river units. The stream has previously been re-directed and is currently culverted through the site as part of a previously planning application and is not in its natural state.

The Biodiversity Net Gain calculations show a percentage increase which meets the requirement for measurable net gain as a result of proposed development outlined within the NPPF 2019 and exceeds the 10% Biodiversity Net Gain that is a requirement of the Environment Act 2021 from 2023.

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