



## **APPENDIX 2**

### **BASELINE UKHAB DESCRIPTIONS**

## APPENDIX 2 – BASELINE UKHAB DESCRIPTIONS

The following habitat descriptions are to be read in conjunction with Figure 1.2.1 – 1.2.4 (Baseline UKHab Map) in Appendix 1.

### *General Site Description*

The Site, which covers approximately 171 ha, comprises predominantly agricultural land in the northern and central areas (dominated by arable and grazed pasture fields and with various areas of woodland and scrub), and Ifield Golf Course in the south. A range of habitats are present throughout the Site including grassland, arable land, woodland, scrub, a network of hedgerows and lines of trees, individual trees, ditches (including land drains) and ponds. The River Mole flows west to east through the northern half of the Site, and Ifield Brook flows south to north along the eastern Site boundary (intervening the Site and the adjacent Ifield Brook Wood & Meadows LWS). Rusper Road passes through the southern half of the Site (passing north of the Ifield Golf Course), and Charlwood Road and Bonnett's Lane form the northern-most extent of the site.

### *UKHab: w1f – Lowland mixed deciduous woodland*

Several distinct parcels of lowland mixed deciduous woodland are present within the Site; a small parcel in the central/northern portion of the Site (associated with the River Mole), a portion located along the north-west Site boundary (which is connected with a larger woodland parcel registered as an Ancient Woodland Inventory (AWI) site), a narrow belt immediately north of the Ifield Golf Course (through the centre of which there is a footpath), a small parcel within a larger area of woodland in the south-east of the Ifield Golf Course, and a continuous belt along the southern / south-eastern / south-western edges of the Ifield Golf Course (part of which is registered as an AWI site). There is a small area (0.005 ha) of AWI woodland present within the Site itself. Further AWI woodland is also present off-Site but adjacent to the boundary, notably in the south-east of the Site (in Ifield Brook Wood and Meadows) and to the west.

Dominant tree species are typically broadleaved and include pedunculate oak *Quercus robur*, ash *Fraxinus excelsior*, hornbeam *Carpinus betulus*, English elm *Ulmus procera*, silver birch *Betula pendula*, beech *Fagus sylvatica*, willow species *Salix sp.* and common lime *Tilia x europaea*. Coniferous species are recorded occasionally, and include Scots pine *Pinus sylvestris* and Douglas fir *Pseudotsuga menziesii*. Several wild service tree *Sorbus torminalis* specimens were recorded in the parcel in the south-east of the Ifield Golf Course. A range of tree age classes is evident across these woodland parcels, ranging from saplings to over-mature specimens. These woodlands typically feature a well-developed understorey with holly *Ilex aquifolium*, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, hazel *Corylus avellana*, blackthorn *Prunus spinosa*, dog rose *Rosa canina* and elder *Sambucus nigra* frequently recorded. The ground flora typically features frequent native bluebell *Hyacinthoides non-scripta*, dog's mercury *Mercurialis perennis* and male fern *Dryopteris filix-mas*, with ground ivy *Glechoma hederacea*, lords-and-ladies *Arum maculatum*, tufted hair-grass *Deschampsia cespitosa* and wood avens *Geum urbanum* recorded occasionally. A small stand of cotoneaster (assumed *Cotoneaster horizontalis*) was identified in the narrow belt to the western edge of the Site.

### *w1g – Other woodland: broadleaved*

Numerous other parcels of woodland are present throughout the Site; including large and small stands, narrow strips between field boundaries, woodland belts surrounding watercourses, and numerous other wooded areas within the Ifield Golf Course. These include plantation woodland and semi-natural woodland, and which do not meet the description for lowland mixed deciduous woodland.

A significant proportion of woodland within the Ifield Golf Course is broadleaved and mixed plantation woodland, some of which is relatively young (and hence comprises predominantly single age classes) and some of which is more established. Broadleaved-dominated stands typically comprise pedunculate oak, cherry *Prunus sp.*, willow, Swedish whitebeam *Sorbus intermedia*, hazel, ash, hornbeam, sycamore *Acer pseudoplatanus*, rowan *Sorbus aucuparia*, spindle *Euonymus europaeus*, sweet chestnut *Castanea sativa*, field maple and silver birch, and are species rich in many cases. In mixed stands, coniferous species contribute up to 40% of the total woodland area, but typically less. Plantation woodlands typically have an understorey featuring hawthorn, blackthorn, hazel, rose species *Rosa sp.* and holly, but have a limited ground flora either dominated by bramble *Rubus fruticosus agg.*, common grasses or with relatively bare ground. Butterfly bush *Buddleja davidii* was also recorded in two parcels of plantation woodland within the Ifield Golf Course.

Several parcels of semi-natural woodland are also present within the Ifield Golf Course, which do not meet the description for lowland mixed deciduous woodland and some of which are significantly damaged / disturbed through both human activity and deer browsing. Dominant broadleaved species typically include pedunculate oak and ash, with field maple, hornbeam, hawthorn and willow species occurring frequently. Understoreys are typically composed of rose species, honeysuckle *Lonicera periclymenum*, hawthorn, blackthorn, hazel, holly, willow species and elder. Ground flora, where present, typically includes bramble, common nettle *Urtica dioica*, ivy *Hedera helix*, male fern and common grasses.

A narrow belt of woodland surrounds the River Mole, which flows through the northern half of the Site west to east. This is composed predominantly of ash and pedunculate oak, also with silver birch, hornbeam, field maple, willow species and hawthorn, and with an understorey featuring hawthorn, blackthorn, holly, guelder rose *Viburnum opulus* and field maple. This woodland features several open areas, particularly in the western extent, which are characterised by the presence of scrub, including bramble. The ground flora is generally species-poor and some of these parcels evidence anthropogenic damage / disturbance (resulting from pedestrian / vehicular access).

Several other smaller parcels of broadleaved plantation woodland and semi-natural woodland are present throughout the remainder of the Site, outside of the Ifield Golf Course. In these stands, pedunculate oak and / or ash are most commonly the dominant species, with other species including sycamore, willow species, field maple. Species composition of the understorey is typical of that found elsewhere on the Site, and ground flora is typically species-poor, with common nettle, common hogweed *Heracleum sphondylium*, common grasses and bramble abundant. Within one such stand, in the central portion of the Site, there is a veteran tree (as identified in the Arboricultural Assessment, March 2021; Ref: NJCL 892).

#### *w1g6 – Line of trees*

Several lines of trees are present throughout the Site, notably within the Ifield Golf Course but also along field boundaries in the northern half of the Site, and some of which are associated with ditches.

Within the Ifield Golf Course, lines of trees typically comprise broad-leaved species such as pedunculate oak, ash and hornbeam, with occasional coniferous species, and with small-leaved lime *Tilia cordata* recorded in one location. These are typically set within short-cut grassland.

In the remainder of the Site, lines of trees regularly feature a layer of bramble and shrubby trees (such as blackthorn, hawthorn, hazel, holly, ash and rose species) beneath, making these lines of trees a more continuous linear feature and hence ecologically valuable. Tree species are also predominantly broad-leaved species, particularly pedunculate oak, ash and occasional English elm, and with a distinct line of hybrid black poplar *Populus x canadensis* present in one location.

*g3c – Other neutral grassland*

Discrete areas of other neutral grassland are present across the Site, including fields in the northern, central and western portions of the Site, as well as along arable field margins / between arable fields, and in smaller parcels within the Ifield Golf Course. Due to a prolonged period of extreme drought prior to and during the update UKHab survey, many grassland species were dead / dying at that time and a full species list could therefore not be compiled for all areas of the Site. On this basis, a precautionary approach was adopted whereby observations made during previous habitat surveys conducted at the Site by Ramboll (August – September 2020) and Arcadis (May – July 2018) were taken into account, and grassland was classified as 'other neutral grassland' in some instances where a full species list could not be compiled but local conditions suggested this habitat type.

Thin strips of tall-sward grassland feature around arable field margins, in field corners and around hedgerows, with species including false oat-grass *Arrhenatherum elatius*, common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus*, **crested dog's-tail** *Cynosurus cristatus*, meadow foxtail *Alopecurus pratensis*, tall fescue *Schedonorus arundinaceus*, **cock's-foot** *Dactylis glomerata* and perennial rye-grass *Lolium perenne*, with variable occurrences of soft rush *Juncus effusus*, common fleabane *Pulicaria dysenterica*, cut-leaved cranesbill *Geranium dissectum*, meadow buttercup *Ranunculus acris*, creeping buttercup *Ranunculus repens*, smooth sow-thistle *Sonchus oleraceus*, creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, common tare *Vicia sativa*, **common cat's-ear** *Hypochaeris Radicata*, dandelion *Taraxacum agg.*, red bartsia *Odontites vernus*, common hogweed *Heracleum sphondylium*, meadow vetchling *Lathyrus pratensis*, marsh woundwort *Stachys palustris*, common ragwort *Senecio jacobaea*, teasel *Dipsacus fullonum*, ribwort plantain *Plantago lanceolata*, greater plantain *Plantago major*, cuckoo flower *Cardamine pratensis*, bristly ox-tongue *Helminthotheca echioides* and common knapweed *Centaurea nigra*. Some of these areas are becoming increasingly encroached by bramble and self-set saplings, and broad-leaved dock *Rumex obtusifolius* was evident occasionally.

A narrow strip of other neutral grassland exists in the central portion of the Site, surrounded by narrow woodland belts. This features a grassland species composition similar to that recorded in the remainder of the Site, but with soft rush and additional herbaceous species including hairy tare *Vicia hirsuta* and bittersweet *Solanum dulcamara*. To the south of this area, another small field features a similar species composition but with frequent meadowsweet *Filipendula ulmaria* and marsh thistle *Cirsium palustre*.

There are several other smaller fields which are either cut for hay or very lightly grazed by cattle. Species recorded do not vary significantly than that recorded throughout the remainder of the Site, although a recent hay cut made species identification difficult in some instances (in which cases a precautionary approach was undertaken, as described above).

Other neutral grassland within the Ifield Golf Course typically occurs in narrow strips on the edge of woodlands, as well as in mosaics with scattered trees. These areas are characterised by a taller sward height and greater species diversity than that found throughout the remainder of the Ifield Golf Course. The species composition was generally consistent throughout, with species frequently recorded including Yorkshire fog, meadow foxtail, sweet vernal-grass, rough meadow-grass, timothy *Phleum pratense*, common bent and perennial rye-grass, along with occasional to frequent common agrimony *Agrimonia eupatoria*, creeping buttercup, bird's-foot trefoil *Lotus corniculatus*, creeping thistle, creeping cinquefoil *Potentilla reptans*, meadow vetchling, yarrow *Achillea millefolium* and selfheal *Prunella vulgaris*. Minor bramble encroachment was evident in some areas.

#### *g4 – Modified grassland*

Significant areas of modified grassland are present across the Site, most notably grazed pasture in the northern and western areas of the Site, the 'greens' and 'fairways' within the Ifield Golf Course and along road verges in the north. These areas are typically characterised by evidence of nutrient enrichment, disturbance and active management through cutting and / or grazing.

Due to a prolonged period of extreme drought prior to and during the update UKHab survey, some grassland and herbaceous species in the fields constituting the northern / north-western portions of the Site were dead / dying at the time of the survey and a full and accurate species list could therefore not be compiled. However, species lists were compiled during previous habitat surveys conducted at the Site by Ramboll (August – September 2020) and Arcadis (May – July 2018). Furthermore, incidental observations were made during a repeat visit to these fields in April 2023. Species recorded throughout areas of grazed pasture in the northern and western areas of the Site include abundant annual meadow-grass *Poa annua*, with frequent meadow foxtail, Yorkshire fog and creeping bent, and occasional perennial rye-grass, and with false brome *Brachypodium sylvaticum* and common couch *Elymus repens* recorded in the margins. There is generally a poor diversity of herbaceous species, with creeping buttercup, broad-leaved dock, dandelion, creeping thistle the most commonly recorded, and indicative of nutrient enrichment. Soft rush and cuckoo flower are present occasionally in damper areas, which includes a narrow depression within the largest field in the north of the Site, several areas in the field to the south-west (immediately north of the River Mole) and the eastern-most field in the northern portion of the Site.

Several other smaller fields to the south-west also comprise modified grassland with a similar species composition to that described above.

A full species list for the greens / fairways on the Ifield Golf Course was not possible given how closely cut this grassland is; however, species which could be identified included perennial rye-grass, Yorkshire fog and annual meadow grass, with occasional selfheal and common daisy *Bellis perennis* also noted.

Further modified grassland lies in the areas surrounding the pavement at Charlwood Road, Ifield Road and Bonnets Lane, in the north of the Site. These areas are dominated by perennial rye-grass, with common speedwell *Veronica persica*, lesser celandine *Ficaria verna*, creeping buttercup and dandelion noted within the sward.

#### *g1c – Bracken*

Bracken *Pteridium aquilinum* with scattered common nettle *Urtica dioica* and lords-and-ladies is present occasionally within the Ifield Golf Course, and lies beneath occasional scattered trees along woodland edge areas.

#### *h3h – Mixed scrub*

Mixed scrub is relatively frequent throughout the Site, albeit typically in small parcels / strips between grassland margins, woodland edges and along field boundaries. This scrub can be characterised by a mixture of bramble, blackthorn, hazel, elder and hawthorn, with no dominant species. It is also often intermixed with non-woody species such as common hogweed, thistle species, teasel, common nettle and broad-leaved dock.

One larger area identified as mixed scrub contains abundant willow species, which appears self-seeded, and also contains young oak and blackthorn. This area is densely populated although there are several small clearings containing soft rush and marsh thistle, suggesting seasonally wet ground conditions. It is possible that this will develop into woodland if left unmanaged.

#### *h3d – Bramble scrub*

One narrow strip of bramble-dominated scrub exists in the west of the Site, with occasional dog rose, nettle, teasel and thistle species also recorded.

#### *h3a – Blackthorn scrub*

A dense stand of blackthorn-dominated scrub is also present in the west of the Site, which has spread out from an unmanaged hedgerow along the northern boundary of a field and is likely to completely encroach this field if left unmanaged.

#### *s – Sparsely vegetated land, 17 – Ruderal/ ephemeral*

A number of areas of tall ruderal vegetation are present on the Site, typically found surrounding buildings, around the edge of arable fields and skirting hedgerows / lines of trees. Examples of species commonly found within this habitat include common nettle, common hogweed, broad-leaved dock, thistle species, teasel, cow parsley *Anthriscus sylvestris*, cleavers *Galium aparine* and rosebay willowherb *Chamerion angustifolium* (plus other willowherb species). It is likely that some of these areas of tall ruderal vegetation are temporary and will vary year upon year based upon the agricultural regime in those areas.

#### *h2a – Hedgerows (priority habitat)*

Approximately 39 hedgerows are present throughout the Site and along the Site boundaries, primarily along arable and grassland field boundaries and around the northern edge of the Ifield Golf Course.

Hedgerows are predominantly native and mostly species-poor, although several species-rich hedgerows are present. The most common woody species include hawthorn, blackthorn, hazel, dog rose, elder and field maple, whilst less frequently recorded woody species include crab apple *Malus sylvestris*, ash, hornbeam, common dogwood *Cornus sanguinea*, holly, willow species and yew *Taxus baccata*. Climbing / understorey species typically include bramble, snowberry *Symphoricarpos albus*, honeysuckle *Lonicera periclymenum*, common gorse *Ulex europaeus* and hedge bindweed *Calystegia sepium*. Non-native rhododendron *Rhododendron ponticum* was identified in one hedgerow to the north of the Site. Ground flora typically includes common grasses and herbs associated with the surrounding and adjacent habitats. Hedgerows with trees commonly feature ash, pedunculate oak and field maple standards, ranging up to mature specimens.

A number of hedgerows are associated with ditches, some of which were dry at the time of the survey (but which are expected to hold water at other times of the year, given the prolonged period of extreme drought prior to and during the update UKHab survey).

Hedgerow management varies across the Site, with several examples where management is infrequent (or hedgerows are neglected). In such cases, hedgerows are likely to lapse or encroached into surrounding habitats if active management is not undertaken.

Three hedgerows within the Site boundary were assessed by Arcadis (October 2019) as 'important' as defined by the Hedgerows Regulations (1997), under the wildlife and landscape criteria. These are present in the central and north-western portions of the Site.

#### *h2b – Other hedgerows*

A small number of hedgerows consisting of (or dominated by) non-native / ornamental species, or in some cases composed of Leyland cypress *Cupressus × leylandii*, are present on the Site. One such hedge is predominantly composed of cherry laurel *Prunus laurocerasus*. The understorey of such hedgerows is typically poor to non-existent (i.e. bare ground).

*u1a – Developed land; sealed surface*

There are numerous areas of hardstanding and developed land throughout the Site. These areas comprise a series of farm tracks, yards, residential areas, roads (in the very north of the Site, and intervening the Ifield Golf Course from the remainder of the Site), and areas around the Ifield Golf Course entrance / buildings.

*u1b5 – Buildings*

A number of residential and commercial buildings are located on Site. These include a mixture of farm buildings, storage sheds, the Ifield Golf Course, Ifield Golf Course club house / stores and a small number of residential houses.

*u1c – Artificial unvegetated, unsealed surface*

Some former yards / tracks are unsealed but feature little or no vegetation. This includes areas in the west of the Site, which are recently disturbed.

*c1c – Cereal crops*

Six large arable fields were recorded within the central portion of the Site. It is understood that these fields supported a barley *Hordeum vulgare* crop at the time of the survey. A small and narrow arable field is also present in the west of the Site.

*u – Urban, 1160 – Introduced shrub*

Ornamental / introduced shrubs are present in one area of the Site; surrounding buildings associated with the Ifield Ifield Golf Course.

*Individual trees*

Individual rural trees are common throughout the Site, although most notably within the Ifield Golf Course and in grassland fields in the northern portion of the Site. These typically range from semi-mature to over-mature specimens.

Individual trees in the Ifield Golf Course are, in some cases, planted in clusters (likely as part of a targeted landscaping scheme), typically over managed grassland habitat. These areas do not meet the description for woodland habitat, but may succeed into woodland in the future if the management regime is changed. Specimens within the Ifield Golf Course include pedunculate oak, sycamore, beech, ash, cherry, hornbeam, common lime, silver birch, willow and a number of coniferous species.

In the remainder of the Site, individual trees are predominantly pedunculate oak, with hawthorn and several young fruit trees also recorded in the north and west of the Site.

Three veteran pedunculate oak trees are present within the Outline Component, located in the northern portion of the Site, and there is one veteran tree in the Detailed Component (as identified in the Arboricultural Assessment, March 2021; Ref: NJCL 892).

*r1a – Eutrophic standing waters, 19 – Ponds (priority habitat), 39 – Artificial pond*

Nine ponds are present within the Site boundary; six of which are present within the Ifield Golf Course; one of which is in the northern portion of the Site; and two in the west of the Site. These ponds ranged in size, and some on the Ifield Golf Course were dry at the time of the survey.

The pond in the north of the Site is set within the largest grazed field and is surrounded by a stock fence, protecting it from grazing pressure. This linear pond is surrounded by trees (including ash, oak, hawthorn and willow) and scrub, and is inundated with soft rush, reedmace *Typha latifolia* and purple loosestrife *Lythrum salicaria*. A large proportion of this ponds appeared to be dry during the survey, however there was standing water throughout most of the eastern half of this feature.



Of the two ponds in the west of the Site, one is surrounded by tall ruderal vegetation and occasional young, scattered trees, and appears to be man-made. The water levels were low at the time of the survey, and there was little evidence of aquatic vegetation. The second is a small and overgrown ornamental pond set within modified grassland and surrounded by shrubs. Aquatic and marginal vegetation include white water-lily *Nymphaea alba* and branched bur-reed *Sparganium erectum*.

The ponds within the Ifield Golf Course are a mixture of man-made ponds in open areas, along with three more natural woodland ponds. Woodland ponds are typically over-shaded and, as such, marginal and aquatic vegetation is scarce. Of the other Ifield Golf Course ponds, one was holding water at the time of the survey, and contained fish. Marginal and aquatic / emergent vegetation was relatively abundant and included soft and hard rush, reedmace, yellow flag *Iris pseudacorus* and white water-lily. The other two ponds were surrounded by scattered trees and were dry at the time of the survey, although rushes, reedmace and water mint *Mentha aquatica* in the dry margins would indicate that these ponds would usually hold water (which is supported by previous habitat survey data). New Zealand pygmyweed *Crassula helmsii* has been identified within these two ponds.

A number of ponds, both on Ifield Golf Course and in the wider Site, contain populations of great crested newts *Triturus cristatus* (GCN) and, as such, are considered priority habitat due to the presence of protected species.

A former pond, now completely dry and inundated with terrestrial vegetation, is present on the western edge of the Site, within the junction between a hedgerow and stands of woodland.

An artificial pond is present in the west of the Site, enclosed by high concrete sides, covered with a mesh and therefore not considered to be of value for wildlife.

#### *r – Standing open water and canals, 191 – Ditch*

A series of ditches are present across the Site, which include drainage ditches along hedgerows / line of trees, along field edges and in woodland areas, and a series of 'drainage channels' in the Ifield Golf Course. The longest ditch feature is an unnamed watercourse flowing north to south between fields, joins the River Mole in the central portion of the Site. This feature has been classified as a ditch rather than a river or stream since it is a relatively straight watercourse with shallow banks approximately 2 m wide, and with banks 0.5 – 1 m high. Vegetation along this ditch includes scattered semi-mature / mature trees and dense hedgerows with dense scrub covering the ditch in places, and it passes a woodland at the southern end. The banks and channel bed are clay dominated with no emergent or aquatic vegetation present.

At the time of the survey, most ditches were holding little to no water due to a prolonged period of extreme drought prior to and during the survey. Ditches were therefore assessed on a precautionary basis, and taking into account survey information collected previously by Ramboll (August – September 2020) and Arcadis (May – July 2018).

Most ditches were relatively poorly vegetated within the channel itself, with limited or no evidence of aquatic vegetation at the time of the survey, but typically with terrestrial vegetation (tall ruderal vegetation, coarse grasses and scrub populating the banks). Ditches alongside lines of trees, in woodland and along hedgerows are generally over-shaded and hence feature bare or sparsely vegetated banks, however several ditches along woodland and hedgerow edges in the Ifield Golf Course contain frequent soft rush and occasional reedmace.

Drainage channels in the Ifield Golf Course are small and shallow (no deeper than 1 m and typically less than 1 m wide), feature grassy banks (often short cut) and contained old leaf litter in the channel at the time of the survey.

*r2b – Other rivers and streams*

The River Mole is a meandering watercourse varying between 2 – 3 m wide and with banks between 3 – 5 m high, flowing west to east through the Site. Vegetation along this watercourse includes semi-mature trees and woodland, and dense scrub in places, whilst the banks are clay dominated with no emergent or aquatic vegetation. The River Mole passes woodlands including those registered on the Ancient Woodland Inventory (AWI). The water was turbid at the time of the RCA surveys, obscuring the channel bed. The River Mole is not shown on Priority Rivers Map but is shown on the Environment Agency Statutory Main Rivers Map.

Ifield Brook is a meandering watercourse flowing south to north, mostly within a mature broadleaved woodland (parts of which are registered on the AWI), along parts of the eastern Site boundary. The brook varies between 2 – 3 m wide and with banks between 3 – 5 m high, with some shallow bank areas. Clay dominated banks with no emergent or aquatic vegetation. Vegetation along the stream includes semi-mature trees and woodland, with dense scrub in places, whilst the banks are clay dominated with no emergent or aquatic vegetation. The water was turbid at the time of the survey, obscuring the channel bed, although a species of freshwater mussel swan mussel *Anodonta cygnea* was incidentally recorded during the survey. Ifield Brook is not shown on the Priority Rivers Map but is shown on the Environment Agency Statutory Main Rivers Map. Part of Ifield Brook lies within Ifield Brook and Meadows Local Wildlife Site (LWS). Ifield Mill Stream flows south to north to the east of the Site boundary, connecting to the Ifield Brook. The riparian zone of Ifield Mill Stream falls within the Site boundary.

Hyde Hill Brook is located off-Site, flowing west to east through mature broadleaved woodland (parts of which are registered on the AWI) forming part of the southern boundary of the Ifield Golf Course. This is a gently meandering watercourse approximately 2 – 3 m wide and with a variable bank height from 0.75 – 4m. Part of Hyde Hill Stream passes rear gardens of residential properties. Hyde Hill Brook is not shown on Priority Rivers Map and eastern end is shown the Environment Agency Statutory Main Rivers Map. Part of Hyde Hill Stream falls within Hyde Hill Woods LWS.

*Non-Native Invasive Plant Species*

Several Invasive Non-Native Species (INNS) of plants have been identified on the Site. This includes New Zealand pygmyweed within two ponds in the northwest of the Ifield Golf Course, invasive rhododendron in hedgerows in the north of the Site and adjacent to the Ifield Golf Course carpark and cotoneaster (assumed *Cotoneaster horizontalis*) in woodland immediately north of the Ifield Golf Course. Although not listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), cherry laurel is present in a hedgerow and line of trees in the west of the Site and is detrimental to biodiversity as it can degrade habitats such as woodland by shading out the understorey and preventing regeneration of native species. There are additional areas of rhododendron and cherry laurel which have previously been recorded within woodland and hedgerows located off-Site but adjacent to the eastern Site boundary.

*Protected Plant Species*

Native bluebell is present within several parcels of lowland mixed deciduous woodland on the Site and has also previously been recorded within Ifield Brook and Meadows LWS, which abuts the eastern Site boundary.

## **APPENDIX 3**

### **BASELINE BIODIVERSITY SCORE**



**Figure 3.1: Baseline Biodiversity Score, Areas, Distinctiveness, Strategic Significance and Condition Score – Area-based habitats**

Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Cropland	Cereal crops	37.55	Condition Assessment N/A	82.42	Outline
Grassland	Bracken	0.08	Condition Assessment N/A	0.01	Outline
Grassland	Other neutral grassland	3.41	Poor	10.87	Outline
Grassland	Other neutral grassland	8.4	Moderate	53.44	Outline
Grassland	Other neutral grassland	0.64	Good	4.80	Outline
Grassland	Modified grassland	36.54	Poor	62.64	Outline
Grassland	Modified grassland	22.25	Moderate	2.34	Outline
Heathland and shrub	Blackthorn scrub	0.06	Poor	0.12	Outline
Heathland and shrub	Blackthorn scrub	0.2	Moderate	1.55	Outline
Heathland and shrub	Bramble scrub	0.09	Condition Assessment N/A	0.00	Outline
Heathland and shrub	Mixed scrub	0.3	Poor	0.92	Outline

Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Heathland and shrub	Mixed scrub	0.21	Moderate	1.91	Outline
Heathland and shrub	Mixed scrub	0.73	Good	8.05	Outline
Lakes	Ponds (non-priority habitat)	0.003	Poor	0.01	Outline
Lakes	Ponds (priority habitat)	0.17	Poor	0.07	Outline
Lakes	Ponds (priority habitat)	0.13	Moderate	0.83	Outline
Sparsely vegetated land	Tall forbs	0.67	Poor	1.47	Outline
Sparsely vegetated land	Tall forbs	0.04	Moderate	0.18	Outline
Sparsely vegetated land	Tall forbs	0.39	Good	2.69	Outline
Urban	Introduced shrub	0.02	Condition Assessment N/A	0.04	Outline
Urban	Vegetated garden	0.15	Condition Assessment N/A	0.33	Outline
Urban	Developed land; sealed surface	2.65	N/A - Other	0.00	Outline

Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Urban	Developed land; sealed surface	0.48	N/A - Other	0.00	Outline
Urban	Artificial unvegetated, unsealed surface	1.09	N/A - Other	0.00	Outline
Woodland and forest	Lowland mixed deciduous woodland	5.74	Good	3.52	Outline
Woodland and forest	Other woodland; broadleaved	1.1	Poor	1.94	Outline
Woodland and forest	Other woodland; broadleaved	15.5	Moderate	66.33	Outline
Woodland and forest	Other woodland; broadleaved	0.65	Good	0.26	Outline
Individual trees	Rural tree	2.24	Moderate	4.88	Outline
Individual trees	Rural tree (Irreplaceable)	0.11	Moderate	0.00	Outline
Woodland and forest	Other woodland; broadleaved	0.04	Moderate	0.35	Outline
Watercourse footprint	Watercourse footprint	0.01	N/A - Other	0.00	Outline
Woodland and forest	Lowland mixed deciduous woodland	1.28	Moderate	0.55	Outline



Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Woodland and forest	Lowland mixed deciduous woodland (Irreplaecable)	0.005	Moderate	0.00	Outline
Cropland	Cereal crops	0.52	Condition Assessment N/A	1.14	Outline
Grassland	Other neutral grassland	0.02	Moderate	0.18	Outline
Grassland	Modified grassland	0.62	Poor	1.43	Outline
Lakes	Ponds (priority habitat)	0.01	Moderate	0.14	Outline
Urban	Developed land; sealed surface	0.01	N/A - Other	0.00	Outline
Urban	Bare ground	0.01	Poor	0.02	Outline
Woodland and forest	Other woodland; broadleaved	0.1	Moderate	0.92	Outline
Woodland and forest	Other woodland; broadleaved	0.131234	Good	0.15	Detailed
Sparsely vegetated land	Tall forbs	0.019444	Poor	0.03	Detailed
Grassland	Modified grassland	2.0551	Poor	2.77	Detailed

Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Urban	Artificial unvegetated, unsealed surface	0.061785	N/A - Other	0.00	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.1312	Good	0.00	Detailed
Woodland and forest	Other woodland; broadleaved	0.58872	Moderate	3.57	Detailed
Grassland	Modified grassland	8.6575	Moderate	35.58	Detailed
Grassland	Other neutral grassland	0.063246	Poor	0.18	Detailed
Sparsely vegetated land	Tall forbs	0.010038	Good	0.01	Detailed
Cropland	Cereal crops	5.124224	Condition Assessment N/A	11.61	Detailed
Urban	Developed land; sealed surface	0.338187	N/A - Other	0.00	Detailed
Grassland	Other neutral grassland	0.374898	Moderate	1.04	Detailed
Heathland and shrub	Mixed scrub	0.3364	Poor	1.55	Detailed
Heathland and shrub	Mixed scrub	0.04995	Moderate	0.46	Detailed

Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Sparsely vegetated land	Tall forbs	0.0098	Poor	0.02	Detailed
Grassland	Other neutral grassland	0.12644	Poor	0.56	Detailed
Heathland and shrub	Mixed scrub	0.000695	Poor	0.00	Detailed
Heathland and shrub	Mixed scrub	0.610304	Good	8.06	Detailed
Woodland and forest	Other woodland; broadleaved	0.5353	Moderate	4.55	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.00026	Moderate	0.00	Detailed
Woodland and forest	Other woodland; broadleaved	0.3265	Good	0.62	Detailed
Cropland	Cereal crops	0.027839	Condition Assessment N/A	0.05	Detailed
Grassland	Modified grassland	5.6127	Moderate	21.37	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.00013	Good	0.00	Detailed
Urban	Artificial unvegetated, unsealed surface	0.070841	N/A - Other	0.00	Detailed



Broad Habitat	Habitat Type	Area (hectares)	Condition	Total habitat units	Detailed/Outline Component
Grassland	Other neutral grassland	1.07677	Moderate	6.79	Detailed
Urban	Developed land; sealed surface	1.3639	N/A - Other	0.00	Detailed
Sparsely vegetated land	Tall forbs	0.027519	Moderate	0.00	Detailed
Grassland	Modified grassland	1.6068	Poor	2.39	Detailed
Individual trees	Rural tree	0.2199	Moderate	1.69	Detailed
Individual trees	Rural tree (Irreplaceable)	0.0366	Good	Any Loss Unacceptable	Detailed
Individual trees	Rural tree	1.0097	Moderate	7.81	Detailed

**Figure 3.2: Baseline Biodiversity Score, Lengths, Distinctiveness, Strategic Significance and Condition Score – Hedgerows**

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T12	Native hedgerow with trees	0.18	Good	2.48	Outline
T22	Native hedgerow with trees	0	Poor	0.00	Outline
T25	Native hedgerow	0.43	Good	2.84	Outline
T26	Species-rich native hedgerow with trees	0.11	Good	2.28	Outline
T33	Native hedgerow	0.03	Good	0.21	Outline
T34	Native hedgerow with trees	0.22	Good	3.04	Outline
T41	Native hedgerow with trees	0.11	Moderate	1.01	Outline
T41	Native hedgerow with trees	0.03	Moderate	0.28	Outline
T42	Native hedgerow with trees	0.08	Moderate	0.74	Outline
T42	Native hedgerow with trees	0.18	Moderate	1.66	Outline

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T46	Native hedgerow	0.05	Good	0.35	Outline
T46	Native hedgerow	0.12	Good	0.83	Outline
T53	Line of trees	0.08	Moderate	0.37	Outline
T54	Native hedgerow with trees	0	Moderate	0.00	Outline
T54	Native hedgerow with trees	0.1	Moderate	0.92	Outline
T58	Ecologically valuable line of trees	0.02	Moderate	0.18	Outline
T59	Native hedgerow with trees	0.07	Good	0.97	Outline
T67	Native hedgerow with trees	0.1	Good	1.38	Outline
T67	Native hedgerow with trees	0.1	Good	1.38	Outline
T78	Ecologically valuable line of trees	0.16	Moderate	1.41	Outline
T80	Line of trees	0.03	Moderate	0.13	Outline

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T82	Native hedgerow	0.03	Moderate	0.13	Outline
T83	Ecologically valuable line of trees	0.15	Poor	0.66	Outline
T92	Native hedgerow	0.06	Good	0.41	Outline
T92	Native hedgerow	0.08	Good	0.55	Outline
T97	Native hedgerow with trees	0.05	Moderate	0.46	Outline
T99	Native hedgerow	0.15	Moderate	0.69	Outline
T100	Non-native and ornamental hedgerow	0.03	Poor	0.03	Outline
T102	Non-native and ornamental hedgerow	0.05	Poor	0.06	Outline
T104	Non-native and ornamental hedgerow	0.03	Poor	0.03	Outline
T106	Ecologically valuable line of trees	0.04	Moderate	0.37	Outline
T106	Ecologically valuable line of trees	0.05	Moderate	0.46	Outline

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T107	Native hedgerow with trees	0.13	Moderate	1.20	Outline
T110	Line of trees	0.05	Poor	0.12	Outline
T223	Ecologically valuable line of trees	0.05	Moderate	0.46	Outline
T223	Ecologically valuable line of trees	0.01	Moderate	0.09	Outline
T121	Line of trees	0.08	Poor	0.18	Outline
T122	Non-native and ornamental hedgerow	0.03	Poor	0.03	Outline
T131	Native hedgerow	0.08	Moderate	0.35	Outline
T135	Native hedgerow	0.04	Poor	0.09	Outline
T146	Native hedgerow	0.15	Good	0.99	Outline
T147	Ecologically valuable line of trees	0.17	Poor	0.75	Outline
T151	Native hedgerow	0.07	Poor	0.15	Outline



Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T242	Non-native and ornamental hedgerow	0	Poor	0.00	Outline
T46	Native hedgerow	0.05	Good	0.35	Outline
T122	Non-native and ornamental hedgerow	0.03	Poor	0.03	Outline
T246	Native hedgerow	0.17	Moderate	0.75	Outline
T247	Ecologically valuable line of trees	0.1	Poor	0.44	Outline
T247	Ecologically valuable line of trees	0.08	Poor	0.35	Outline
T168	Line of trees	0	Moderate	0.00	Outline
T152	Ecologically valuable line of trees	0.24	Moderate	2.21	Outline
T227	Native hedgerow	0.01	Poor	0.02	Outline
T227	Native hedgerow	0.03	Poor	0.07	Outline
T255	Ecologically valuable line of trees	0.02	Poor	0.09	Outline

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T255	Ecologically valuable line of trees	0.02	Poor	0.09	Outline
T162	Species-rich native hedgerow with trees	0.14	Good	2.77	Outline
T162	Species-rich native hedgerow with trees	0.06	Good	1.19	Outline
T175	Native hedgerow	0.06	Poor	0.14	Outline
T182	Species-rich native hedgerow with trees	0.12	Moderate	1.66	Outline
T207	Ecologically valuable line of trees	0.03	Moderate	0.28	Outline
T207	Ecologically valuable line of trees	0.1	Moderate	0.92	Outline
T209	Ecologically valuable line of trees	0.04	Moderate	0.37	Outline
T244	Species-rich native hedgerow with trees	0.06	Good	1.19	Outline
T121	Line of trees	0	Poor	0.00	Outline
T95	Native hedgerow with trees	0.13	Good	1.72	Outline

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
	Native hedgerow	0.04	Moderate	0.18	Outline
	Line of trees	0.02	Moderate	0.09	Outline
	Line of trees	0.01	Poor	0.02	Outline
	Line of trees	0.08	Moderate	0.32	Outline
T19	Species-rich native hedgerow with trees	0.132273	Good	2.62	Detailed
T21	Species-rich native hedgerow with trees	0.008088	Good	0.16	Detailed
T25	Species-rich native hedgerow with trees	0.007007	Good	0.15	Detailed
T26	Species-rich native hedgerow with trees	0.086189	Good	1.78	Detailed
T54	Species-rich native hedgerow with trees	0.049185	Moderate	0.68	Detailed
T59	Species-rich native hedgerow with trees	0.21825	Good	4.32	Detailed
T131	Species-rich native hedgerow with trees	0.037294	Moderate	0.49	Detailed

Hedge Number	Hedgerow Type	Length (km)	Condition	Total Hedgerow Units	Detailed/Outline Component
T146	Species-rich native hedgerow with trees	0.153109	Good	3.03	Detailed
T161	Species-rich native hedgerow with trees	0.081005	Poor	0.53	Detailed
T162	Species-rich native hedgerow with trees	0.001718	Good	0.03	Detailed
T121	Non-native and ornamental hedgerow	0.080872	Poor	0.09	Detailed
T118	Non-native and ornamental hedgerow	0.026994	Poor	0.03	Detailed
T223	Line of trees	0.116159	Moderate	0.51	Detailed
T168	Line of trees	0.122748	Moderate	0.56	Detailed
T152	Line of trees	0.019845	Moderate	0.09	Detailed

**Figure 3.3: Baseline Biodiversity Score, Lengths, Distinctiveness, Strategic Significance and Condition Score – Watercourses**

Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Other rivers and streams	1.48	Fairly Good	Minor	Moderate/ Minor	18.38	Outline
Other rivers and streams	2.06	Fairly Good	Minor	Moderate/ Minor	25.59	Outline
Other rivers and streams	0.48	Fairly Good	No Encroachment	Moderate/ Minor	7.45	Outline
Other rivers and streams	0.05	Fairly Good	No Encroachment	Minor/ Minor	0.82	Outline
Ditches	0.01	Poor	No Encroachment	Major/No Encroachment	0.04	Outline
Ditches	0.1	Poor	No Encroachment	Major/Minor	0.39	Outline
Ditches	0.16	Poor	No Encroachment	Major/Minor	0.62	Outline
Ditches	0.18	Poor	No Encroachment	Minor/ No Encroachment	0.81	Outline
Ditches	0.02	Poor	No Encroachment	Moderate/ No Encroachment	0.08	Outline
Ditches	0.24	Poor	No Encroachment	Major/Major	0.83	Outline



Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0.07	Poor	No Encroachment	Major/Major	0.24	Outline
Ditches	0.08	Moderate	No Encroachment	Major/Minor	0.59	Outline
Ditches	0.02	Poor	No Encroachment	Moderate/ Moderate	0.08	Outline
Ditches	0.05	Poor	No Encroachment	No Encroachment/ No Encroachment	0.22	Outline
Ditches	0.06	Poor	No Encroachment	Major/Minor	0.23	Outline
Ditches	0.12	Poor	No Encroachment	Minor/ No Encroachment	0.52	Outline
Ditches	0.22	Poor	No Encroachment	Moderate/ Minor	0.87	Outline
Ditches	0.23	Poor	No Encroachment	Major/Major	0.79	Outline
Ditches	0.59	Poor	Minor	Minor/ Minor	2.06	Outline
Ditches	0.15	Poor	No Encroachment	No Encroachment/ No Encroachment	0.69	Outline
Ditches	0.3	Poor	No Encroachment	No Encroachment/ No Encroachment	1.38	Outline

Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0	Poor	No Encroachment	No Encroachment/ No Encroachment	0.00	Outline
Ditches	0.14	Poor	No Encroachment	No Encroachment/ No Encroachment	0.64	Outline
Ditches	0.02	Poor	No Encroachment	No Encroachment/ No Encroachment	0.09	Outline
Ditches	0.07	Poor	No Encroachment	No Encroachment/ No Encroachment	0.32	Outline
Ditches	0.12	Poor	No Encroachment	No Encroachment/ No Encroachment	0.55	Outline
Ditches	0.2	Poor	No Encroachment	No Encroachment/ No Encroachment	0.92	Outline
Ditches	0.11	Poor	No Encroachment	No Encroachment/ No Encroachment	0.51	Outline
Ditches	0.01	Poor	No Encroachment	No Encroachment/ No Encroachment	0.05	Outline
Ditches	0.02	Poor	No Encroachment	Moderate/ Moderate	0.08	Outline
Ditches	0.1	Poor	No Encroachment	Major/Major	0.35	Outline
Ditches	0.38	Poor	No Encroachment	Moderate/ No Encroachment	1.61	Outline

Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0.03	Poor	No Encroachment	Major/Major	0.10	Outline
Ditches	0.1	Poor	No Encroachment	Major/Major	0.35	Outline
Ditches	0.06	Poor	No Encroachment	Major/Moderate	0.22	Outline
Ditches	0.05	Poor	No Encroachment	Moderate/ Minor	0.21	Outline
Ditches	0.01	Poor	No Encroachment	No Encroachment/ No Encroachment	0.05	Outline
Ditches	0.03	Poor	No Encroachment	Minor/ No Encroachment	0.14	Outline
Ditches	0.03	Poor	No Encroachment	Major/Minor	0.12	Outline
Ditches	0.02	Poor	No Encroachment	Major/Minor	0.08	Outline
Ditches	0.13	Poor	No Encroachment	Major/Major	0.45	Outline
Ditches	0.1	Poor	No Encroachment	Major/Major	0.35	Outline
Ditches	0.03	Poor	No Encroachment	No Encroachment/ No Encroachment	0.14	Outline

Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0.11	Poor	No Encroachment	No Encroachment/ No Encroachment	0.51	Outline
Ditches	0.02	Poor	No Encroachment	Major/Major	0.07	Outline
Ditches	0.14	Poor	No Encroachment	Major/Moderate	0.49	Outline
Ditches	0.05	Poor	No Encroachment	Major/Moderate	0.18	Outline
Ditches	0.17	Poor	No Encroachment	Major/Major	0.59	Outline
Ditches	0.08	Poor	No Encroachment	Major/Major	0.28	Outline
Ditches	0.07	Poor	No Encroachment	Major/No Encroachment	0.27	Outline
Ditches	0.13	Poor	No Encroachment	No Encroachment/ No Encroachment	0.57	Outline
Ditches	0.06	Poor	No Encroachment	No Encroachment/ No Encroachment	0.26	Outline
Ditches	0.32	Poor	No Encroachment	Moderate/ Minor	1.27	Outline
Ditches	0.07	Poor	No Encroachment	Major/No Encroachment	0.27	Outline

Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0.04	Poor	No Encroachment	No Encroachment/ No Encroachment	0.18	Outline
Ditches	0.08	Poor	No Encroachment	Moderate/ No Encroachment	0.34	Outline
Ditches	0.050888	Poor	No Encroachment	Major/Major	0.18	Detailed
Ditches	0.021248	Poor	No Encroachment	No Encroachment/ No Encroachment	0.09	Detailed
Ditches	0.24156	Poor	No Encroachment	Moderate/ No Encroachment	0.98	Detailed
Ditches	0.095554	Poor	No Encroachment	Major/Major	0.32	Detailed
Ditches	0.034262	Poor	No Encroachment	No Encroachment/ No Encroachment	0.16	Detailed
Ditches	0.10037	Poor	No Encroachment	Major/Moderate	0.37	Detailed
Ditches	0.002075	Poor	No Encroachment	Major/Major	0.01	Detailed
Ditches	0.020316	Poor	No Encroachment	Major/Major	0.07	Detailed
Ditches	0.035877	Poor	No Encroachment	No Encroachment/ No Encroachment	0.17	Detailed



Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Total Watercourse Units	Detailed/Outline Component
Ditches	0.222322	Poor	No Encroachment	Minor/ No Encroachment	0.96	Detailed
Ditches	0.151478	Poor	No Encroachment	No Encroachment/ No Encroachment	0.70	Detailed
Ditches	0.045314	Poor	No Encroachment	Minor/ Minor	0.19	Detailed
Other rivers and streams	0.054	Fairly Good	Minor	Moderate/ Minor	0.67	Detailed
Ditches	0.076969	Moderate	No Encroachment	No Encroachment/ No Encroachment	0.71	Detailed
Ditches	0.004444	Moderate	No Encroachment	No Encroachment/ No Encroachment	0.04	Detailed
Ditches	0.016216	Moderate	No Encroachment	Minor/ No Encroachment	0.15	Detailed
Ditches	0.013364	Moderate	No Encroachment	Minor/ No Encroachment	0.12	Detailed

## **APPENDIX 4**

### **POST DEVELOPMENT BIODIVERSITY SCORE**

**Table 4.1: Post-development Habitats, Habitat Action and Units Delivered – Area-based habitats**

<b>Broad Habitat</b>	<b>Proposed Habitat Type</b>	<b>Area (hectares)</b>	<b>Condition</b>	<b>Habitat Intervention</b>	<b>Total Biodiversity Units Delivered</b>	<b>Detailed / Outlined Component</b>
Cropland	Cereal crops	0.085	Condition Assessment N/A	Retained	0.19	Outline
Grassland	Bracken	0.077	Condition Assessment N/A	Retained	0.18	Outline
Grassland	Other neutral grassland	1.047	Poor	Retained	4.82	Outline
Grassland	Other neutral grassland	0.512	Moderate	Retained	4.71	Outline
Grassland	Other neutral grassland	0.292	Good	Retained	4.03	Outline
Grassland	Modified grassland	4.412	Poor	Retained	10.15	Outline
Heathland and shrub	Blackthorn scrub	0.035	Poor	Retained	0.16	Outline
Heathland and shrub	Blackthorn scrub	0.031	Moderate	Retained	0.29	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Heathland and shrub	Bramble scrub	0.09	Condition Assessment N/A	Retained	0.40	Outline
Heathland and shrub	Mixed scrub	0.1	Poor	Retained	0.46	Outline
Heathland and shrub	Mixed scrub	0.002	Moderate	Retained	0.02	Outline
Heathland and shrub	Mixed scrub	0.12	Good	Retained	1.58	Outline
Lakes	Ponds (priority habitat)	0.07	Moderate	Retained	0.97	Outline
Urban	Developed land; sealed surface	0.44	N/A - Other	Retained	0.00	Outline
Urban	Developed land; sealed surface	0.15	N/A - Other	Retained	0.00	Outline
Urban	Artificial unvegetated, unsealed surface	0.03	N/A - Other	Retained	0.00	Outline
Woodland and forest	Lowland mixed deciduous woodland	5.57	Good	Retained	115.30	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Woodland and forest	Other woodland; broadleaved	0.492	Poor	Retained	2.16	Outline
Woodland and forest	Other woodland; broadleaved	8.29	Moderate	Retained	76.27	Outline
Woodland and forest	Other woodland; broadleaved	0.631	Good	Retained	8.71	Outline
Individual trees	Rural tree	1.71	Moderate	Retained	15.73	Outline
Individual trees	Rural tree	0.11	Moderate	Retained	Irreplaceable habitat - no units generated	Outline
Watercourse footprint	Watercourse footprint	0.01	N/A - Other	Retained	0.00	Outline
Woodland and forest	Lowland mixed deciduous woodland	0.005	Moderate	Retained	Irreplaceable habitat - no units generated	Outline
Woodland and forest	Other woodland; broadleaved	0.120089	Good	Retained	1.66	Detailed



Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Sparsely vegetated land	Tall forbs	0.004432	Poor	Retained	0.01	Detailed
Urban	Artificial unvegetated, unsealed surface	0.03711	N/A - Other	Retained	0.00	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.1312	Good	Retained	2.72	Detailed
Woodland and forest	Other woodland; broadleaved	0.201205	Moderate	Retained	1.85	Detailed
Grassland	Other neutral grassland	0.024994	Poor	Retained	0.11	Detailed
Sparsely vegetated land	Tall forbs	0.007953	Good	Retained	0.05	Detailed
Cropland	Cereal crops	0.0783	Condition Assessment N/A	Retained	0.18	Detailed
Urban	Developed land; sealed surface	0.041842	N/A - Other	Retained	0.00	Detailed
Grassland	Other neutral grassland	0.262115	Moderate	Retained	2.41	Detailed

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Woodland and forest	Other woodland; broadleaved	0.018734	Moderate	Retained	0.16	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.000131	Moderate	Retained	0.00	Detailed
Woodland and forest	Other woodland; broadleaved	0.279361	Good	Retained	3.69	Detailed
Cropland	Cereal crops	0.005515	Condition Assessment N/A	Retained	0.01	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.00013	Good	Retained	0.00	Detailed
Urban	Artificial unvegetated, unsealed surface	0.017155	N/A - Other	Retained	0.00	Detailed
Grassland	Other neutral grassland	0.304998	Moderate	Retained	2.68	Detailed
Urban	Developed land; sealed surface	0.217629	N/A - Other	Retained	0.00	Detailed
Sparsely vegetated land	Tall forbs	0.027519	Moderate	Retained	0.12	Detailed

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Individual trees	Rural tree	0.0366	Moderate	Retained	0.34	Detailed
Individual trees	Rural tree	0.1221	Moderate	Retained	1.07	Detailed
Woodland and forest	Lowland Mixed Deciduous woodland	0.005	Good	Retained	Irreplaceable habitat - no units generated	Outline
Grassland	Other neutral grassland – Lowland Meadows	2.079	Moderate - Good	Enhanced	33.11	Outline
Grassland	Modified grassland – Lowland Meadows	4.895	Moderate - Good	Enhanced	56.54	Outline
Grassland	Modified grassland – Lowland Meadows	21.718	Moderate - Good	Enhanced	270.25	Outline
Lakes	Ponds (priority habitat)	0.17	Moderate - Good	Enhanced	2.14	Outline
Woodland and forest	Other woodland; broadleaved	0.166	Poor	Enhanced	1.21	Outline
Woodland and forest	Lowland mixed deciduous woodland	1.24	Moderate - Good	Enhanced	18.40	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Grassland	Modified grassland	0.849136	Poor	Enhanced	5.77	Detailed
Grassland	Modified grassland	0.92209	Moderate	Enhanced	7.01	Detailed
Heathland and shrub	Mixed scrub	0.000354	Poor	Enhanced	0.00	Detailed
Heathland and shrub	Mixed scrub	0.000695	Poor	Enhanced	0.01	Detailed
Grassland	Modified grassland	0.755853	Moderate	Enhanced	5.49	Detailed
Grassland	Modified grassland	0.520378	Poor	Enhanced	3.38	Detailed
Grassland	Modified grassland	0.84	Poor	Created	1.74	Outline
Grassland	Other neutral grassland	0.59	Moderate	Created	4.23	Outline
Urban	Developed land; sealed surface	0.51	N/A - Other	Created	0.00	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Grassland	Modified grassland	0.89	Poor	Created	1.84	Outline
Grassland	Other neutral grassland	2.36	Moderate	Created	16.92	Outline
Urban	Developed land; sealed surface	0.89	N/A - Other	Created	0.00	Outline
Grassland	Modified grassland	0.69	Poor	Created	1.43	Outline
Grassland	Other neutral grassland	0.69	Moderate	Created	4.95	Outline
Urban	Developed land; sealed surface	0.1	N/A - Other	Created	0.00	Outline
Grassland	Modified grassland	2.09	Moderate	Created	7.76	Outline
Urban	Developed land; sealed surface	1.08	N/A - Other	Created	0.00	Outline
Urban	Introduced shrub	0.42	Condition Assessment N/A	Created	0.87	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Heathland and shrub	Mixed scrub	0.42	Moderate	Created	3.01	Outline
Grassland	Other neutral grassland	2.8	Good	Created	25.20	Outline
Heathland and shrub	Mixed scrub	1.75	Good	Created	15.75	Outline
Urban	Developed land; sealed surface	27.78	N/A - Other	Created	0.00	Outline
Urban	Vegetated garden	11.87	Condition Assessment N/A	Created	24.53	Outline
Heathland and shrub	Mixed scrub	0.74	Good	Created	6.66	Outline
Lakes	Ponds (priority habitat)	0.41	Good	Created	4.43	Outline
Urban	Developed land; sealed surface	0.22	N/A - Other	Created	0.00	Outline
Urban	Allotments	1.39	Moderate	Created	5.75	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Grassland	Modified grassland	6.99	Poor	Created	14.45	Outline
Urban	Artificial unvegetated, unsealed surface	2.85	N/A - Other	Created	0.00	Outline
Urban	Developed land; sealed surface	0.54	N/A - Other	Created	0.00	Outline
Grassland	Other neutral grassland	0.1	Moderate	Created	0.72	Outline
Urban	Sustainable drainage system	0.1	Moderate	Created	0.26	Outline
Urban	Developed land; sealed surface	3.37	N/A - Other	Created	0.00	Outline
Grassland	Other neutral grassland	0.62	Moderate	Created	4.44	Outline
Urban	Sustainable drainage system	0.62	Moderate	Created	1.60	Outline
Urban	Developed land; sealed surface	3.41	N/A - Other	Created	0.00	Outline

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Grassland	Other neutral grassland	0.8	Moderate	Created	5.74	Outline
Urban	Sustainable drainage system	0.8	Moderate	Created	2.06	Outline
Lakes	Ponds (priority habitat)	0.25	Moderate	Created	1.93	Outline
Urban	Developed land; sealed surface	0.03	N/A - Other	Created	0.00	Outline
Urban	Developed land; sealed surface	5.03	N/A - Other	Created	0.00	Outline
Individual trees	Urban tree	3.44	Moderate	Created	11.26	Outline
Grassland	Lowland meadows	1.33	Good	Created	6.61	Outline
Woodland and forest	Lowland mixed deciduous woodland	2.45	Poor	Created	3.64	Outline
Urban	Developed land; sealed surface	0.07	N/A - Other	Created	0.00	Outline



Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Urban	Developed land; sealed surface	0.85	N/A - Other	Created	0.00	Outline
Urban	Vegetated garden	0.37	Condition Assessment N/A	Created	0.66	Outline
Individual trees	Rural tree	0.8387	Moderate	Created	2.63	Detailed
Urban	Developed land; sealed surface	5.119735	N/A - Other	Created	0.00	Detailed
Grassland	Other neutral grassland	4.1131	Moderate	Created	29.49	Detailed
Grassland	Other neutral grassland	3.2345	Moderate	Created	23.19	Detailed
Heathland and shrub	Hawthorn scrub	0.0898	Moderate	Created	0.64	Detailed
Grassland	Other neutral grassland	0.2025	Moderate	Created	1.45	Detailed
Urban	Rain garden	0.1004	Moderate	Created	0.39	Detailed

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Grassland	Other neutral grassland	0.8948	Moderate	Created	6.42	Detailed
Urban	Rain garden	0.1006	Moderate	Created	0.39	Detailed
Watercourse footprint	Watercourse footprint	0.0449	N/A - Other	Created	0.00	Detailed
Woodland and forest	Other woodland; broadleaved	0.2826	Moderate	Created	1.42	Detailed
Urban	Developed land; sealed surface	3.876	N/A - Other	Created	0.00	Detailed
Grassland	Other neutral grassland	4.191	Moderate	Created	28.74	Detailed
Grassland	Other neutral grassland	0.8318	Moderate	Created	5.70	Detailed
Heathland and shrub	Hawthorn scrub	0.1156	Moderate	Created	0.79	Detailed
Grassland	Other neutral grassland	0.1582	Moderate	Created	1.08	Detailed

Broad Habitat	Proposed Habitat Type	Area (hectares)	Condition	Habitat Intervention	Total Biodiversity Units Delivered	Detailed / Outlined Component
Urban	Rain garden	0.0065	Moderate	Created	0.02	Detailed
Grassland	Other neutral grassland	0.527	Moderate	Created	3.61	Detailed
Urban	Rain garden	0.0227	Moderate	Created	0.08	Detailed
Watercourse footprint	Watercourse footprint	0.0008	N/A - Other	Created	0.00	Detailed
Woodland and forest	Other woodland; broadleaved	0.4478	Moderate	Created	2.15	Detailed
Woodland and forest	Lowland mixed deciduous woodland	0.158	Poor	Created	0.23	Detailed

**Table 4.2: Post-development Habitats, Habitat Action and Units Delivered – Hedgerows**

Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
T26	Species-rich native hedgerow with trees	0.11	Good	Retained	2.28	Outline
T53	Line of trees	0.08	Moderate	Retained	0.37	Outline
T58	Ecologically valuable line of trees	0.02	Moderate	Retained	0.18	Outline
T78	Ecologically valuable line of trees	0.16	Moderate	Retained	1.41	Outline
T80	Line of trees	0.03	Moderate	Retained	0.13	Outline
T83	Ecologically valuable line of trees	0.15	Poor	Retained	0.66	Outline
T106	Ecologically valuable line of trees	0.04	Moderate	Retained	0.37	Outline
T110	Line of trees	0.05	Poor	Retained	0.46	Outline

Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
T147	Ecologically valuable line of trees	0.17	Poor	Retained	0.75	Outline
T247	Ecologically valuable line of trees	0.1	Poor	Retained	0.44	Outline
T247	Ecologically valuable line of trees	0.08	Poor	Retained	0.35	Outline
T255	Ecologically valuable line of trees	0.02	Poor	Retained	0.09	Outline
T162	Species-rich native hedgerow with trees	0.14	Good	Retained	2.77	Outline
T162	Species-rich native hedgerow with trees	0.06	Good	Retained	1.19	Outline
T182	Species-rich native hedgerow with trees	0.12	Moderate	Retained	1.66	Outline
T207	Ecologically valuable line of trees	0.03	Moderate	Retained	0.28	Outline
T244	Species-rich native hedgerow with trees	0.06	Good	Retained	1.19	Outline

Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
-	Line of Trees	0.08	Moderate	Retained	0.32	Outline
T19	Species-rich native hedgerow with trees	0.132	Good	Retained	2.61	Detailed
T21	Species-rich native hedgerow with trees	0.008088	Good	Retained	0.16	Detailed
T25	Species-rich native hedgerow with trees	0.0070073	Good	Retained	0.15	Detailed
T26	Species-rich native hedgerow with trees	0.0861886	Good	Retained	1.78	Detailed
T59	Species-rich native hedgerow with trees	0.2182499	Good	Retained	4.32	Detailed
T131	Species-rich native hedgerow with trees	0.0372938	Moderate	Retained	0.49	Detailed
T146	Species-rich native hedgerow with trees	0.1531089	Good	Retained	3.03	Detailed
T161	Species-rich native hedgerow with trees	0.0810047	Poor	Retained	0.53	Detailed

Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
T162	Species-rich native hedgerow with trees	0.0017183	Good	Retained	0.03	Detailed
T223	Line of trees	0.1161588	Moderate	Retained	0.51	Detailed
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.18	Good	Enhanced	3.52	Outline
	Native hedgerow - Species-rich native hedgerow	0.43	Good	Enhanced	5.21	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.11	Good	Enhanced	2.07	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.08	Good	Enhanced	1.51	Outline
	Native hedgerow - Species-rich native hedgerow	0.05	Good	Enhanced	0.63	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.1	Good	Enhanced	1.96	Outline

Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
	Native hedgerow - Species-rich native hedgerow	0.03	Good	Enhanced	0.35	Outline
	Native hedgerow - Species-rich native hedgerow	0.06	Good	Enhanced	0.76	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.05	Good	Enhanced	0.94	Outline
	Native hedgerow - Species-rich native hedgerow	0.15	Good	Enhanced	1.84	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.13	Good	Enhanced	2.45	Outline
	Native hedgerow - Species-rich native hedgerow	0.08	Good	Enhanced	0.90	Outline
	Native hedgerow - Species-rich native hedgerow	0.04	Moderate	Enhanced	0.29	Outline
	Native hedgerow - Species-rich native hedgerow	0.15	Good	Enhanced	1.76	Outline



Hedgerow Number	Proposed Hedgerow Type	Length (km)	Condition	Habitat Intervention	Total Hedgerow Units Delivered	Outline / Detailed Component
	Native hedgerow - Species-rich native hedgerow	0.07	Moderate	Enhanced	0.51	Outline
	Native hedgerow - Species-rich native hedgerow	0.05	Good	Enhanced	0.61	Outline
	Native hedgerow - Species-rich native hedgerow	0.17	Good	Enhanced	1.91	Outline
	Native hedgerow - Species-rich native hedgerow	0.01	Moderate	Enhanced	0.08	Outline
	Native hedgerow - Species-rich native hedgerow	0.06	Moderate	Enhanced	0.46	Outline
	Native hedgerow with trees - Species-rich native hedgerow with trees	0.13	Good	Enhanced	2.38	Outline
	Species-rich native hedgerow	0.03396	Moderate	Created	0.23	Detailed
	Species-rich native hedgerow	1.2	Moderate	Created (to reach 10%)	1.2	Outline (TBC)

**Table 4.3: Post-development Habitats, Habitat Action and Units Delivered – Watercourses**

<b>Proposed Watercourse Type</b>	<b>Length (km)</b>	<b>Condition</b>	<b>Watercourse Encroachment</b>	<b>Riparian Zone Encroachment</b>	<b>Habitat Intervention</b>	<b>Total Watercourse Units Delivered</b>	<b>Outline / Detailed Component</b>
Other rivers and streams	0.48	Fairly Good	No Encroachment	Moderate/ Minor	Retained	7.45	Outline
Other rivers and streams	0.05	Fairly Good	No Encroachment	Minor/ Minor	Retained	0.82	Outline
Ditches	0.08	Moderate	No Encroachment	Major/Minor	Retained	0.59	Outline
Ditches	0.005	Poor	No Encroachment	Major/Major	Retained	0.02	Detailed
Ditches	0.0453	Poor	No Encroachment	Minor/ Minor	Retained	0.19	Detailed
Other rivers and streams	0.054	Fairly Good	Minor	Moderate/ Minor	Retained	0.67	Detailed
Ditches	0.00444424	Moderate	No Encroachment	No Encroachment/ No Encroachment	Retained	0.04	Detailed
Ditches	0.01621599	Moderate	No Encroachment	Minor/ No Encroachment	Retained	0.15	Detailed
Other rivers and streams	1.48	Fairly Good - Fairly Good	Minor	Minor/ Minor	Enhanced	19.40	Outline

Proposed Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Habitat Intervention	Total Watercourse Units Delivered	Outline / Detailed Component
Other rivers and streams	2.06	Fairly Good - Fairly Good	Minor	Minor/ Minor	Enhanced	27.01	Outline
Ditches	0.12	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.95	Outline
Ditches	0.22	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	1.75	Outline
Ditches	0.23	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	1.91	Outline
Ditches	0.15	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	1.25	Outline
Ditches	0.02	Poor - Moderate	No Encroachment	Moderate/ Moderate	Enhanced	0.14	Outline
Ditches	0.1	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.83	Outline
Ditches	0.38	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	3.16	Outline
Ditches	0.03	Poor - Moderate	No Encroachment	Major/Major	Enhanced	0.19	Outline

Proposed Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Habitat Intervention	Total Watercourse Units Delivered	Outline / Detailed Component
Ditches	0.1	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.83	Outline
Ditches	0.01	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.08	Outline
Ditches	0.14	Poor - Moderate	No Encroachment	Major/Moderate	Enhanced	0.89	Outline
Ditches	0.17	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	1.41	Outline
Ditches	0.08	Poor - Moderate	No Encroachment	Major/No Encroachment	Enhanced	0.58	Outline
Ditches	0.07	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.56	Outline
Ditches	0.02125	Poor - Moderate	No Encroachment	No Encroachment/ No Encroachment	Enhanced	0.05	Detailed
Ditches	0.24156	Poor - Moderate	No Encroachment	Minor/ No Encroachment	Enhanced	1.51	Detailed
Ditches	0.09555	Poor - Moderate	No Encroachment	Major/Major	Enhanced	0.57	Detailed

Proposed Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Habitat Intervention	Total Watercourse Units Delivered	Outline / Detailed Component
Ditches	0.10037	Poor - Moderate	No Encroachment	Minor/ No Encroachment	Enhanced	0.81	Detailed
Ditches	0.22232	Poor - Moderate	No Encroachment	Major/Major	Enhanced	1.03	Detailed
Ditches	0.1	Moderate	No Encroachment	Major/Moderate	Created	0.38	Outline
Ditches	0.18	Moderate	No Encroachment	Major/Major	Created	0.65	Outline
Ditches	0.59	Moderate	Minor	Major/Major	Created	1.70	Outline
Ditches	0.06	Moderate	No Encroachment	Major/Major	Created	0.22	Outline
Ditches	0.05	Moderate	No Encroachment	Major/Major	Created	0.18	Outline
Ditches	0.03	Moderate	No Encroachment	Moderate/ Moderate	Created	0.12	Outline
Ditches	0.13	Moderate	No Encroachment	Minor/ Minor	Created	0.57	Outline

Proposed Watercourse Type	Length (km)	Condition	Watercourse Encroachment	Riparian Zone Encroachment	Habitat Intervention	Total Watercourse Units Delivered	Outline / Detailed Component
Ditches	0.32	Moderate	No Encroachment	Major/Minor	Created	1.24	Outline
Ditches	0.04	Moderate	No Encroachment	Major/Major	Created	0.14	Outline
Ditches	0.081265	Moderate	No Encroachment	Minor/ Minor	Created	0.37	Detailed
Ditches	0.038081	Moderate	No Encroachment	Minor/ Minor	Created	0.17	Detailed
Culvert	0.036675	Poor	N/A - Culvert	N/A - Culvert	Created	0.03	Detailed
Ditches	2.2	Moderate	No Encroachment	Moderate/ Moderate	Created	8.59	Detailed

## **APPENDIX 5**

### **BIODIVERSITY NET GAIN PRINCIPLES**

## Biodiversity Net Gain Principles

The ten good practice principles<sup>1</sup> must be met for a proposed development to achieve qualitative BNG and overall BNG. The Proposed Development has been assessed against each good practice principle and the result is displayed with supporting evidence in the table below. Where a principle has not been met, recommendations on how the principle could be met in future are also provided. It should be noted that the adherence to these principles is based on the Proposed Development's current stage in the BNG process and therefore the results presented below do not necessarily rule out future adherence.

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<sup>1</sup> CIRIA, CIEEM, IEMA (2019). Biodiversity Net Gain: Good Practice Principles for Development. A Practical Guide.



Principle	Principle Description	Evidence	Current Outcome	Recommendations
1. <b>Apply the mitigation hierarchy</b>	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.	<p>Embedded mitigation for the Proposed Development has included avoidance of priority habitats and protected plants (i.e. native bluebell) where possible, creation of buffers around sensitive on-Site and adjacent habitats (including watercourses and woodland). The loss of all on- and off-Site (adjacent) AWI woodland will be avoided through design and micro-siting. However, it has not been possible to avoid all areas of priority habitat, including a number of ponds within the Ifield Golf Course and hedgerows, but these will be compensated for with new habitat planting.</p> <p>The Proposed Development will retain three veteran trees located within the Outline Component, however there is unavoidable loss of one veteran tree within the Detailed Component. As veteran trees are regarded as irreplaceable habitats, bespoke compensation measures will be applied to support the retention of ecological function and habitat continuity.</p>	Achieved	<p>BNG requirements for linear habitats can be achieved with 1.2 km additional hedgerow planting (native species rich) in moderate condition as well as at least 2.2 km of new ditch creation in moderate condition.</p> <p>Bespoke compensation measures to address the loss of one veteran tree (irreplaceable habitat), should be applied to support the retention of ecological function and habitat continuity.</p>

Principle	Principle Description	Evidence	Current Outcome	Recommendations
<b>2. Avoid losing biodiversity that cannot be offset elsewhere</b>	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve No Net Loss or Net Gain.	The loss of all on- and off-Site (adjacent) AWI woodland will be avoided through design and micro-siting. Three veteran trees located within the Outline Component will be retained, and bespoke compensation measures will be applied to address the unavoidable loss of one veteran tree within the Detailed Component.	Achieved but bespoke compensation required for the loss of a veteran tree.	Bespoke compensation measures to address the loss of one veteran tree (irreplaceable habitat), should be applied to support the retention of ecological function and habitat continuity.
<b>3. Be inclusive and equitable</b>	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.	Consultation will be undertaken with the local authority and nature bodies in relation to the creation/enhancement and management of new habitats, in particular lowland meadows and lowland mixed deciduous woodland.	Achieved	Recommend how the Proposed Development can be inclusive.
<b>4. Address risks</b>	Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.	The Statutory Biodiversity Metric risk multipliers to account for the time required for habitats to reach any given condition, and the difficulty to create any given habitat. A variety of locally relevant habitats have been incorporated into the landscape design, including woodland, ponds, lowland meadow, hedgerow and neutral grassland that will also increase habitat connectivity. A two-year delay has been applied; for habitat creation of all new habitats, and for habitat enhancement of grassland to lowland meadows, and lowland	Achieved	The feasibility of enhancing grassland to lowland meadow should be undertaken early in the detailed design stage. An initial soil analysis should be undertaken to inform the compilation of habitat management and monitoring plan detailing the measures and requirement to create

Principle	Principle Description	Evidence	Current Outcome	Recommendations
		mixed deciduous woodland from moderate to good condition.		habitats and achieve target condition. A long-term woodland management approach should be applied for the creation and enhancement of lowland mixed deciduous woodland. The location of new woodland and management actions should aim to promote woodland establishment, connectivity with adjacent off-Site woodland, and improve condition of existing woodland on-Site as informed by the HCA results.
<b>5. Make a measurable Net Gain contribution</b>	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	A measurable net gain has been achieved for area-based habitats. The final change is a 12.70% net gain for area-based habitats, a -3.42 % net loss for hedgerows and -0.46% net loss for watercourses. Net gains for linear habitats could be achieved through habitat creation.	Achieved for area-based habitats, with potential to achieve for linear habitats (see recommendations).	Achieved with 1.2 km additional hedgerow planting (native species rich) in moderate condition as well as at least 2.2 km of new ditch creation in moderate condition.
<b>6. Achieve the best outcomes for biodiversity</b>	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make	This BNG assessment followed a rigorous QA process. The Proposed Development achieved a Net Gain for area habitats with losses compensated for on-Site, with 'like-for-like or better' habitats, to ensure trading rules have	Achieved	-

Principle	Principle Description	Evidence	Current Outcome	Recommendations
	<p>clearly justified choices when:</p> <ul style="list-style-type: none"> <li>• Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses;</li> <li>• Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation;</li> <li>• Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels;</li> <li>• Enhancing existing or creating new habitat;</li> <li>• Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity.</li> </ul>	<p>been satisfied. The best habitats for the specific Site have been chosen for mitigation works including lowland meadow, lowland mixed deciduous woodland and a relocated pond created to compensate for losses of ponds. Habitat and green infrastructure have been designed in a way that is supportive to existing local habitat networks. The incorporation of 'Semi Natural Open Spaces / Green Space', 'Landscape Managed for Nature Conservation' and the 'Ifield Meadow Buffer', retention of existing tree groups and woodland, and creation of new habitats using native planting within the landscape masterplans, demonstrates prioritisation of natural biodiversity within the development design.</p>		

Principle	Principle Description	Evidence	Current Outcome	Recommendations
<b>7. Be additional</b>	Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway)	<p>The nature conservation outcomes relating to legislation and policy have been met. The aim is to enhance extensive areas of low value grassland to very high distinctiveness lowland meadow habitat. This will help contribute towards the restoration of this habitat type which has declined significantly in West Sussex and will deliver significant benefits in terms of biodiversity.</p> <p>The enhancement and creation of lowland mixed deciduous woodland, a Habitat of Principle Importance, will help increase this habitat area coverage and connectivity with surrounding woodland areas.</p>	Achieved	-
<b>8. Create a Net Gain legacy</b>	<p>Ensure Net Gain generates long-term benefits by:</p> <ul style="list-style-type: none"> <li>• Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity;</li> <li>• Planning for adaptive management and securing dedicated funding for long-term management;</li> <li>• Designing Net Gain for biodiversity to be resilient to external</li> </ul>	<p>New habitats have been chosen based on expert opinion and will be designed and implemented through liaison with stakeholders and production of a HMMP. In addition, climate resilient native species are recommended as are changes to land management to protect habitats and reduce agricultural pressure etc. as part of enhancements. It ensures the ecosystem services of the area are retained and will retain and enhance freshwater features, grassland and deciduous woodland. The development conforms with requirements for protected species or other environmental mitigation, as well as BNG policies in the relevant local plans (Strategic Policy 17 of the Horsham District</p>	Achieved	-

Principle	Principle Description	Evidence	Current Outcome	Recommendations
	<p>factors, especially climate change;</p> <ul style="list-style-type: none"> <li>• Mitigating risks from other land uses;</li> <li>• Avoiding displacing harmful activities from one location to another;</li> <li>• Supporting local-level management of Net Gain activities.</li> </ul>	Local Plan 2023-2040 – Regulation 19 and Policy GI3 Crawley Borough Local Plan 2023 – 2040. It has been demonstrated that the proposals maintain and enhance the network of green infrastructure, natural capital and biodiversity.		
<b>9. Optimise sustainability</b>	Prioritise Biodiversity Net Gain and, where possible, optimise the wider benefits for a sustainable society and economy.	The current landscape plan takes into account BNG requirements for the Site but also wider sustainability requirements and ambitions such as expansion of local green infrastructure networks, addressing both where possible, to provide better outcomes for biodiversity.	Achieved	-
<b>10. Be transparent</b>	Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.	Data was consistently shared across disciplines and stakeholders to allow biodiversity to be designed into the development to maximise outcomes via regular meetings and via collaborative drawings.	Achieved	-

## **APPENDIX 6**

### **HABITAT CONDITION ASSESSMENT**

Habitat Reference	UK Hab code (secondary code)	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Criterion 6	Criterion 7	Criterion 8	Criterion 9	Criterion 10	Criterion 11	Criterion 12	Criterion 13	Condition Score	Notes / Habitat description
T1	g3c	Y	Y	N	N	N	N								Poor	Field margin, fairly sp. poor but tall sward
T2	h2a	Y	Y	Y	Y	Y	Y	Y	Y						Good	<b>Native sp. rich</b>
T3	c1														n/a	
T4	g3c	Y	Y	N	N	N	N								Poor	Field margin, fairly sp. poor but tall sward
T5	h3a	N	Y	Y	N	N									Poor	Contains 3x mature oaks. Prev. classified as sp. Rich hedge w/ trees - but now classified as scrub (lapsed hedge).
T6	c1														n/a	
T7	g3c	Y	Y	N	Y	N	N								Moderate	Field margin, fairly sp. poor but tall sward
T8	r (191)	Y	N	Y	Y	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T9	h3h	Y	Y	N	Y	N									Moderate	Mosaic of scrub, trees, TRV and bracken. Dry ditch (T8) running through centre.
T10	c1														n/a	
T11	g3c	Y	Y	N	Y	N	N								Moderate	Field margin, fairly sp. poor but tall sward
T12	h2a	Y	Y	Y	Y	Y	Y	Y	Y	N	Y				Good	<b>Native sp. Poor w/ trees</b>
T13	Individual trees														Moderate	2x mature, 4x young
T14	Individual trees														Moderate	1x semi mature
T15	g4	Y	N	Y	N	Y	Y	Y							Moderate	Some evidence of grazing. Large patches dominated by thistles and dock. Update visit on 17-02-2023
T16	Individual trees														Moderate	4x early mature
T17	w1g (37)	3	3	3	3	3	3	3	2	1	3	2	1	3	Good (33)	
T18																River Mole (see previous Phase 1 map for location) - we are not including this in our assessment so no need to add at this stage
T19	h2a	Y	Y	Y	Y	N	Y	Y	Y						Good	<b>Native sp. Poor</b>
T20	Individual trees														Moderate	1x mature
T21	h2a	Y	Y	Y	Y	N	Y	Y	Y						Good	<b>Native sp. Poor</b>



T22	h2a	N	N	Y	N	N	Y	N	Y	Y	Y				Poor	<b>Native sp. Poor w/ trees</b>
T23	g4	Y	N	Y	N	Y	Y	Y							Moderate	Update visit on 17-02-2023
T24	w1f (37)	3	3	3	3	3	3	3	3	3	3	1	3	2	Good (36)	Ancient woodland indicators (including bluebell)
T25	h2a	Y	Y	Y	Y	Y	Y	Y	Y						Good	<b>Native sp. Poor.</b> Along woodland edge, but defined.
T26	h2a	Y	Y	Y	N	N	Y	Y	Y	Y	Y				Good	<b>Native sp. Rich w/ trees.</b>
T27	w1f (37)	3	3	3	3	3	3	3	3	3	3	2	2	3	Good (37)	Veteran trees, diverse species mix, well-developed canopy layers.
T29	Individual trees														Moderate	1x semi-mature
T30	c1														n/a	
T31	w1g (37)	3	3	3	3	3	1	2	3	2	2	2	1	2	Moderate (30)	Same as T70/ T39
T32	u1b														n/a	Farm tracks
T33	h2a	Y	Y	Y	N	Y	Y	Y	N						Good	<b>Native sp. poor</b>
T34	h2a	Y	Y	Y	N	Y	Y	Y	Y	N	Y				Good	<b>Native sp. poor hedge w/ trees associated w/ ditch</b>
T35	g3c	Y	Y	Y	N	Y	N								Moderate	
T36	c1														n/a	
T37	s (17)	Y	Y	Y											Good	Tall ruderal vegetation - no INNS. Nice structure and intermixed with grasses.
T38	g3c	Y	Y	Y	N	Y	N								Moderate	Marshy grassland
T39	w1g (37)	3	3	3	3	3	1	2	3	2	2	2	1	2	Moderate (30)	Same as T70/ T31
T40	g4	Y	Y	N	N	N	N	Y							Poor	Sp. poor, encroached by scrub and bracken, damaged by path
T41	h2a	Y	Y	N	N	Y	Y	Y	Y	N	Y				Moderate	<b>Native sp. poor w/ trees associated w/ ditch.</b>
T42	h2a	Y	Y	N	N	N	Y	Y	Y	N	Y				Moderate	<b>Native sp. poor w/ trees associated w/ ditch.</b>
T43	g3c	Y	Y	Y	N	Y	N								Moderate	Field edge
T44	r (191)	Y	N	Y	Y	Y	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T45	h3h	Y	N	Y	Y	N									Moderate	Mixed scrub as too short to be classed as hedges
T46	h2a	Y	Y	Y	Y	Y	Y	Y	Y						Good	<b>Native sp. poor.</b> Verging on treeline given maturity.
T47	s (17)	N	Y	Y											Moderate	Tall ruderal vegetation - no INNS
T48	g3c	Y	Y	Y	Y	Y	Y								Good	Nice diversity and structure, minimal disturbance but scrub encroachment may become an issue over time

T49	h3h	N	N	N	Y	N									Poor	Scattered scrub
T50	g3c	Y	Y	Y	N	Y	N								Moderate	
T51	r (191)	Y	N	Y	Y	Y	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T52	w1g (37)	2	3	3	3	3	3	2	3	1	2	1	1	2	Moderate (29)	
T53	w1g6	N	Y	Y	N	Y									Moderate	<b>NOT ecologically valuable.</b> Line of predominantly hybrid black poplars
T54	h2a	Y	Y	N	N	N	Y	Y	Y	N	Y				Moderate	<b>Native sp. poor hedge w/ trees associated w/ ditch</b>
T55	c1														n/a	
T56	r (191)	Y	N	Y	Y	Y	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T57	g4	N	Y	Y	N	Y	Y	Y							Poor	Sp. poor, damaged, but no scrub encroachment
T58	w1g6	Y	Y	Y	N	Y									Moderate	<b>Ecologically valuable line of trees associated w/ ditch.</b> Predominantly oaks.
T59	h2a	Y	Y	Y	Y	Y	Y	Y	Y	N	Y				Good	<b>Native sp. poor hedge w/ trees</b>
T60	u1b5														n/a	Farm buildings/ house
T61	s (17)	N	N	Y											Poor	Tall ruderal vegetation - poor diversity, all same height
T62	u1 (231)														n/a	Amenity grassland/ vegetated garden.
T63	u1b														n/a	Hardstanding yard/ driveway etc
T64	w1g (37)	1	3	3	3	3	1	1	3	1	1	2	1	1	Poor (24)	Surrounding garden, lots of disturbance/ damage
T65	s (17)	N	N	Y											Poor	Tall ruderal vegetation - poor diversity and structure
T66	h3h	Y	Y	N	N	N									Poor	Dense scrub, attached to woodland but not yet woodland
T67	h2a	Y	Y	Y	N	Y	Y	Y	Y	Y	Y				Good	<b>Native sp. poor hedge w/ trees.</b> Very mature.
T68	g3c	Y	Y	N	Y	N	N								Moderate	Relatively sp. poor
T69	w1g (37)	2	3	3	3	3	2	2	3	2	2	1	1	2	Moderate (29)	Narrow belt of woodland surrounding River Mole, with some open/scrubby areas
T70	w1g (37)	3	3	3	3	3	1	2	3	2	2	2	1	2	Moderate (30)	Same as T31/ T39
T71	g3c	Y	Y	Y	N	Y	N								Moderate	
T72	s (17)	Y	Y	Y											Good	Tall ruderal vegetation along woodland edge, with grasses also present.
T73	g3c	Y	Y	N	Y	Y	N								Moderate	Marshy area of grassland containing soft rush
T74	Individual trees														Moderate	2x mature + 1x young

T75	g4	Y	N	Y	N	Y	Y	Y							Moderate	Update visit on 17-02-2023
T76	Individual trees														Moderate	1x mature + 1x monolith
T77	g3c	Y	N	N	Y	Y	N								Moderate	Marshy grassland dominated by soft rush - previously a pond
T78	w1g6	Y	N	Y	N	Y									Moderate	<b>Ecologically valuable line of trees</b>
T79	g4	N	Y	Y	Y	Y	Y	Y							Poor	Very sp. poor lots of dock, but better structure and less damage than other areas.
T80	w1g6	Y	N	Y	N	Y									Moderate	<b>NOT ecologically valuable.</b> Line of 5x oaks
T81	w1g (36)	3	1	3	3	3	3	2	3	2	2	1	1	1	Moderate (28)	Broad-leaved plantation with extensive damage/ areas of bare ground. Marked as priority habitat on MAGIC but not considered w1f.
T82	h2a	Y	Y	Y	N	N	Y	Y	N						Moderate	<b>Native sp. poor</b>
T83	w1g6	Y	N	Y	N	N									Poor	<b>Ecologically valuable.</b> Line of ash and oak trees, some potential ash dieback
T84	s (17)	N	N	Y											Poor	Tall ruderal vegetation - poor diversity and structure
T85	g3c	Y	Y	Y	Y	N	N								Moderate	Very lightly grazed.
T86	u1b5														n/a	Redundant buildings
T87	w1g (36)	2	3	3	3	3	3	2	2	2	2	1	1	2	Moderate (29)	Broad-leaved plantation, mostly early-mature trees with shrub layer in places
T88	g3c	Y	Y	N	N	N	N								Poor	High scrub encroachment and some damage
T89	h3d														n/a	Bramble-dominated scrub
T90	u1c														n/a	Bare ground with some pioneer vegetation - bare ground in BNG Metric
T91	c1														n/a	Milk pea crops w/ lots of bare earth
T92	h2a	Y	Y	Y	Y	Y	N	Y	N						Good	<b>Native sp. poor</b>
T93	h3a	N	Y	Y	Y	N									Moderate	Blackthorn-dominated scrub, radiating from hedgerow into grassland
T94	w1g (36)	2	3	3	3	3	3	2	2	2	2	1	1	2	Moderate (29)	Broad-leaved plantation, fairly species diverse
T95	h2a	Y	Y	Y	Y	Y	N	Y	Y	N	Y				Good	<b>Native sp. poor hedge w/ trees.</b> Unmanaged/ mature.
T96	g4	N	N	Y	N	N	Y	Y							Poor	Highly disturbed/damaged, very sp. poor.
T97	h2a	Y	Y	Y	Y	N	N	Y	N	N	Y				Moderate	<b>Native sp. poor hedge w/ trees.</b>
T98	h3h	Y	Y	N	N	N									Poor	Dense scrub, attached to woodland but not yet woodland
T99	h2a	Y	N	N	Y	Y	N	Y	Y						Moderate	<b>Native sp. poor</b>
T100	h2b														n/a	Leylandii hedge
T101	u1b														n/a	Hardstanding yard areas w/ some areas of pioneer vegetation too small to map

T102	h2b														n/a	Leylandii hedge
T103	g4	N	N	Y	N	Y	Y	Y							Poor	Modified grassland - previously cleared area? Damaged and sp. poor
T104	h2b														n/a	Leylandii hedge
T105	s (17)	N	N	Y											Poor	Tall ruderal vegetation - poor diversity, all same height
T106	w1g6	Y	Y	N	N	Y									Moderate	<b>Ecologically valuable line of trees associated w/ ditch</b>
T107	h2a	Y	Y	Y	N	Y	N	Y	Y	N	Y				Moderate	<b>Native sp. poor hedge w/ trees.</b> Continues on from line of trees.
T108	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T109	w1g (37)	2	3	3	3	3	1	1	3	1	1	1	1	1	Poor (24)	Small area of broad-leaved woodland, likely damaged and significantly reduced in size.
T110	w1g6	Y	N	N	N	Y									Poor	<b>NOT ecologically valuable.</b> Line of trees around private property
T111	h3h	Y	Y	Y	Y	Y									Good	Willow (dominant), blackthorn, oak. Young + dense. Clearings with typical marshy species e.g. soft rush and marsh thistle. Considered as mixed scrub for most suitable habitat type.
T112	r1a	Y	N	N	Y	N	Y	Y	Y	N					Poor	<b>Ponds: non-priority habitat. Small ornamental pond, quite overgrown. Assuming fail for criterion E as artificially lined. Pond 15 - does not contain GCN.</b>
T113	ub1														n/a	Old building/ foundations etc
T114	g4	N	Y	N	N	Y	Y	Y							Poor	Modified grassland - lots of damaged areas, scrub encroachment. However, varied structure.
T115	r1 (39)														Poor	Drainage feature (artificial pond) - no value for wildlife - no HCA undertaken and assumed poor.
T116	r1a (19)	Y	N	Y	Y	N	Y	Y	N	Y					Moderate	Pond (priority habitat). Dry at the time of the survey. Precautionary pass of Criterion A. Pond 16 - contains GCN.
T117	g4	N	N	Y	N	Y	Y	Y							Poor	Modified grassland, damaged, poor structure.
T118	h2a	Y	N	N	N	N	N	Y	N						Poor	<b>Native sp. poor.</b> Defunct.
T119	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T120	w1g (37)	2	3	3	3	3	2	2	3	1	1	1	2	1	Moderate (27)	Very narrow band of woodland - verging on treeline but more than a single row
T121	w1g6	N	N	Y	N	Y									Poor	<b>Line of trees (not ecologically valuable</b> due to high percentage of Leylandii + cherry laurel shrubs)
T122	h2b														n/a	Predominantly cherry laurel
T123	g4	N	N	Y	N	Y	Y	Y							Poor	Modified grassland, damaged, poor structure.
T124	w1f (37)	3	3	2	3	3	2	2	3	3	3	1	2	2	Moderate (32)	PRoW through centre. Cotoneaster recorded Ancient woodland indicators inc. dog's mercury and bluebell.
T125	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.

T126	g3c	Y	N	Y	Y	N	N								Moderate	Just been cut - assumed to hit Criterion A as a precaution.
T127	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T128	w1g (37)	2	3	3	3	3	2	2	3	1	1	1	2	1	Moderate (27)	Very narrow band of woodland - verging on treeline but more than a single row
T129	u1b														n/a	Hardstanding yards/ properties etc.
T130	g4	Y	N	Y	N	Y	Y	Y							Moderate	Contains some rush sp. Update visit on 17-02-2023
T131	h2a	Y	N	Y	Y	N	N	Y	Y						Moderate	<b>Native sp. poor hedge.</b>
T132	Individual trees														Moderate	4x mature (on boundary but rooted on-Site)
T133	u1b5														n/a	Various farm buildings, houses, sheds etc.
T134	Individual trees														Moderate	15x mature + 5x s.mature trees
T135	h2a	Y	Y	N	N	N	N	Y	N						Poor	<b>Native sp. poor associated w/ (dry) ditch</b>
T136	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T137	21	N	Y	Y	N	Y	N	N	Y						Moderate	Remnants of traditional orchard w/ 8x apple/ plum trees. On managed grassland.
T138	u1 (231)														n/a	Amenity grassland/ vegetated garden.
T139	g4	Y	N	Y	N	Y	Y	Y							Moderate	Update visit by on 17-02-2023
T140	u1 (231)														n/a	Urban garden
T141	Individual trees														Moderate	8X small individual trees
T142a	h3h	Y	Y	N	N	N									Poor	Scattered scrub around former pond/ marshy area
T142b	r1a	Y	N	Y	Y	Y	Y	Y	Y	N					Moderate	Ponds: non-priority habitat. Dry at the time of the survey and inundated predominantly with reedmace and water pepper. Precautionary pass of Criterion A. Pond 6 - no GCN.
T143	w1g (37)	2	3	3	3	3	2	2	3	2	2	1	1	2	Moderate (29)	Narrow band of woodland containing River Mole. Predominantly broadleaved species with occasional Scots pine.
T144	g4	Y	N	Y	Y	N	N								Moderate	Sp. poor marshy grassland containing water pepper, soft rush, purple loosestrife etc. Ultimately part of the wider g4, just wetter.
T145	Individual trees	Y	N	N	N	N	Y								Moderate	~10x scattered hawthorn bushes (small)
T146	h2a	Y	Y	Y	Y	N	Y	Y	Y						Good	<b>Native sp. poor</b>
T147	w1g6	Y	N	Y	N	N	Y								Poor	<b>Ecologically valuable line of trees assoc. w/ (dry) ditch.</b> Some shrubby Rhododendron.
T148	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.



T165	Individual trees	Y	Y	N	N	N	Y								Moderate	Cluster of 9x s.mature Scots pine
T166	w1g (37)	3	3	2	3	3	2	3	3	3	3	2	3	2	Good (35)	B-L semi natural woodland with PRoW and dry ditch through centre. Links with T124. Marked as priority habitat on MAGIC but not considered to meet definition of HPI.
T167	r1a (19)	Y	N	Y	Y	Y	Y	Y	N	N					Moderate	Pond (priority habitat). Dry at the time of the survey. Surrounded by several individual willow trees. Precautionary pass of Criterion A. Pond 3b - contains GCN.
T168	w1g6	Y	N	Y	N	Y									Moderate	NOT ecologically valuable. Approx 27x B-L trees, average size medium. Line of trees rather than individual.
T169	r1a (19)	Y	N	Y	Y	Y	Y	Y	Y	N					Moderate	Pond (priority habitat). Largely dry at the time of the survey. Precautionary pass of Criterion A. Pond 3 - contains GCN.
T170	Individual trees	Y	Y	N	N	N	Y								Moderate	Cluster of 17x Scots pines (s. mature/ medium)
T171	g3c	Y	N	N	Y	N	N								Poor	
T172	Individual trees	Y	N	N	N	Y	Y								Moderate	Cluster of 4x s.mat oaks
T173	g3c	Y	Y	Y	N	N	N								Moderate	
T174a	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry ditch (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T174b	r (191)	Y	N	Y	N	N	N	N	Y						Poor	Dry drainage channel network (but unseasonably dry weather) - ditch HCA undertaken. Precautionary pass of Criteria A + C.
T175	h2a	Y	N	N	N	N	N	Y	N						Poor	Native sp. poor. Short span of beech hedge along woodland edge. Defunct.
T176	w1g (37)	3	3	3	3	3	2	2	2	2	2	2	2	2	Moderate (31)	Narrow band of B-L s.nat woodland
T177	w1f (33, 37)	3	3	3	3	3	3	3	3	2	2	2	2	2	Good (34)	Large areas of B-L snat woodland . Moderate species diversity. Listed as ancient and s-n on MAGIC.
T178	w1g (37)	3	3	3	3	3	2	3	3	2	2	1	1	2	Moderate (31)	Parcel of B-L s.nat woodland. Some damaging activities w/ track through middle. Marked as priority woodland habitat on MAGIC but not considered w1f as does not meet criteria for HPI.
T179	Individual trees														Moderate	Approx. 30x scattered B-L trees, average size medium. Now included as part of woodland.
T180	g1c														n/a	Area of bracken on woodland edge
T181	g3c	Y	Y	N	N	N	N								Poor	
T182	h2a	Y	N	N	N	N	Y	Y	N	Y	Y				Moderate	Native sp. rich hedge w/ trees assoc. w/ (dry) ditch.
T183	w1g (36)	2	3	3	3	3	2	1	3	2	2	1	1	1	Moderate (27)	Mixed plantation woodland. 60% B-L/ 40% coniferous.
T184	w1g (37)	1	3	3	3	3	1	1	3	2	1	1	1	1	Poor (24)	B-L s.nat woodland. Remnant of larger area.
T185	Individual trees	Y	N	N	N	N	Y								Moderate	Cluster of 3x pine trees.
T186	w1g (36)	2	3	3	3	3	3	2	3	2	2	1	1	2	Moderate (30)	B-L plantation woodland with occasional coniferous species (Scots pine)

T187	g3c	Y	Y	Y	N	N	N								Moderate	
T188	Individual trees	Y	N	N	N	Y	Y								Moderate	5x B-L trees, average size medium.
T189a	g3c	Y	Y	Y	N	N	N								Moderate	With scattered trees in centre. Mapped as g3c with individual trees on top.
T189b	Individual trees	Y	Y	N	Y	Y	Y								Moderate	Indiv. Trees - not quite woodland.
T190	r1a	Y	N	Y	N	Y	N	Y	Y	N					Poor	Ponds: non-priority habitat. Dry at the time of the survey and inundated w/ reedmace. Connected to network of dry ditches. Contains Crassula. Precautionary pass of Criterion A. Pond 2 - no GCN.
T191	Individual trees	Y	Y	N	N	N	Y								Moderate	11x small pine trees
T192a	g3c	Y	Y	Y	N	N	N								Moderate	Woodland edge
T192b	w1g (36)	1	3	3	2	3	2	1	3	2	1	1	1	2	Poor (25)	Young B-L plantation woodland.
T193	w1g (36)	2	3	1	2	2	2	2	3	2	2	1	1	1	Poor (24)	B-L s.nat woodland with some damage + undesirable species (Buddleja + horsetail)
T194	u1b5														n/a	Buildings (with H.S. T220)
T195	s (17)	Y	N	N											Poor	Tall ruderal vegetation in yard area in Iffield Golf Course. Decent structure, but Buddleja present.
T196	g3c	Y	Y	Y	N	N	N								Moderate	
T197	Individual trees	Y	N	N	N	Y	Y								Moderate	4x B-L trees, average size medium, several young trees on fairway.
T198	w1g (37)	2	3	3	3	3	2	2	3	2	2	1	1	1	Moderate (28)	V narrow band of B-L s.nat woodland - more than line of trees.
T199	w1g (37)	2	3	2	3	3	1	2	3	2	2	2	1	1	Moderate (27)	Disturbed section of woodland
T200	w1g (36)	2	3	2	3	3	1	2	3	2	2	1	1	1	Moderate (26)	Mixed plantation, lots of disturbance. Buddleja present.
T201	w1g (37)	2	3	2	3	3	1	2	3	2	2	2	1	1	Moderate (27)	Disturbed section of woodland, predominantly oak + hazel. Dry ditch through centre.
T202	w1g (36)	2	2	3	3	3	2	1	3	2	2	1	2	1	Moderate (27)	Young B-L plantation woodland.
T203	Individual trees	Y	N	Y	N	Y	Y								Moderate	5x large oak trees
T204	w1g (37)	1	3	3	3	3	1	1	3	2	1	1	1	1	Poor (24)	Small area of B-L s.nat woodland. Marked as priority woodland habitat on MAGIC but not considered w1f due to damage/disturbance and poor condition.
T205	g3c	Y	Y	N	Y	Y	N								Moderate	Low herb density but good grasses
T206	w1g (36)	1	2	3	3	3	3	2	3	2	1	1	1	2	Moderate (27)	B-L plantation woodland - all trees same age.
T207	w1g6	Y	Y	Y	N	N									Moderate	Line of trees assoc. w/ (dry) ditch. Ecologically valuable. Small leaved lime tree recorded.
T208	w1g (36)	2	3	3	3	3	2	2	3	2	1	1	1	2	Moderate (28)	B-L plantation woodland.



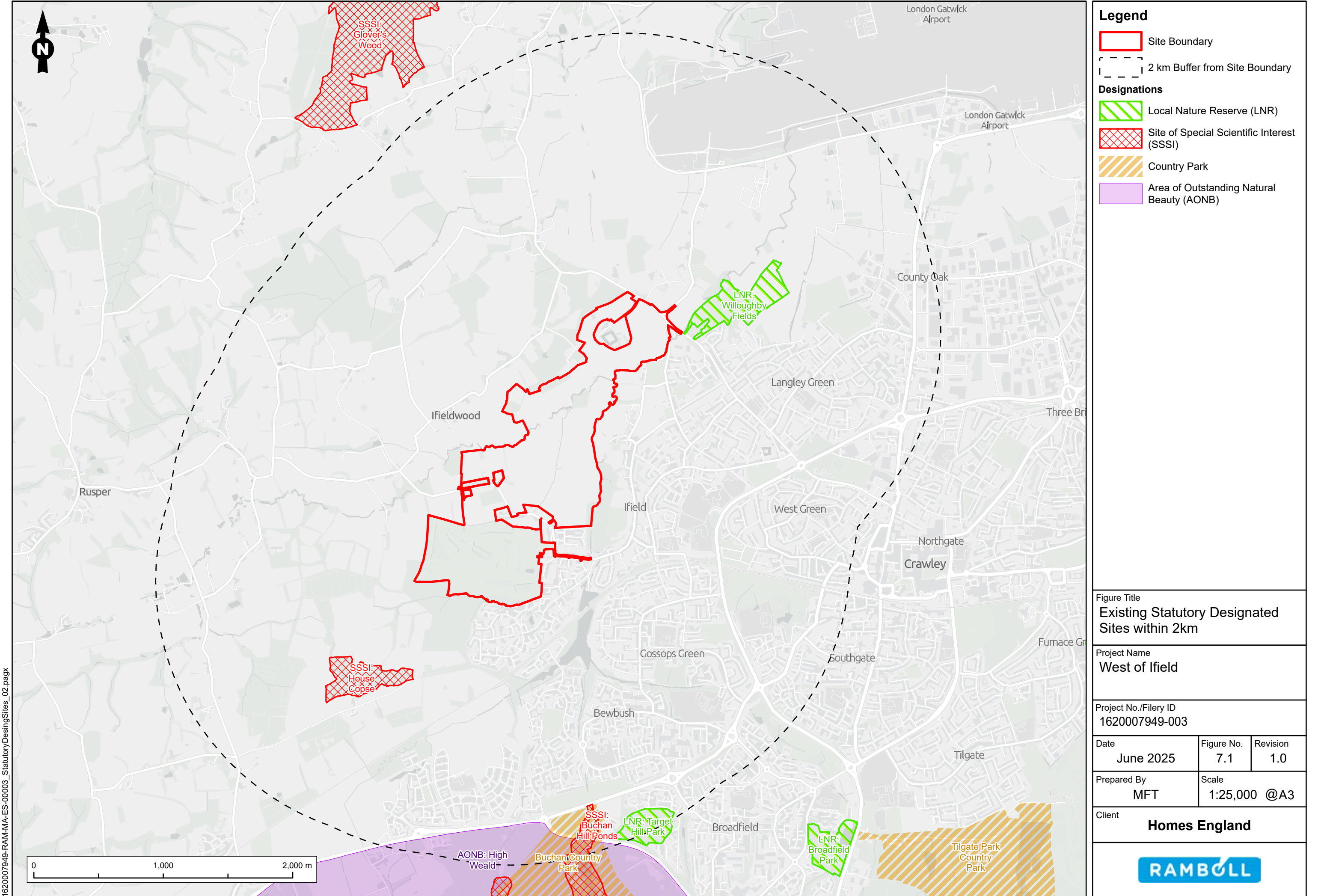
T209	w1g6	Y	Y	Y	N	N									Moderate	Line of trees assoc. w/ (dry) ditch. Ecologically valuable.
T210	w1g (36)	1	3	3	2	3	2	1	3	2	1	1	1	2	Poor (25)	Young B-L plantation woodland.
T211	Individual trees	Y	N	N	N	Y	Y								Moderate	7x individual trees (medium)
T212	Individual trees	Y	Y	N	Y	N	Y								Moderate	8x small oak trees scattered on top of g3c
T213	s (17)	N	Y	Y											Moderate	Tall ruderal vegetation - no INNS
T214	g3c	Y	Y	N	N	N	N								Poor	With pine trees scattered on top. Mapped as g3c with individual trees on top.
T215	g3c	Y	Y	N	N	N	N								Poor	
T216	w1g (36)	2	2	3	3	3	2	1	3	2	2	1	2	2	Moderate (28)	Mature B-L plantation woodland. Marked as priority woodland habitat on MAGIC but not considered w1f as it does not meet criteria for HPI.
T217	w1g (36)	1	2	3	3	3	3	1	3	2	1	1	1	2	Moderate (26)	B-L plantation woodland.
T218	w1g (36)	1	2	3	3	3	3	1	3	2	1	1	1	2	Moderate (26)	B-L plantation woodland.
T219	w1f (37)	3	3	3	3	3	3	3	3	2	3	1	2	3	Good (35)	B-L s.nat woodland (surrounded by plantation). Wild service tree identified. Marked as priority woodland habitat on MAGIC.
T220	u1b														n/a	H.S. (with T194)
T221	w1g (36)	1	2	3	3	2	3	1	3	2	2	1	1	2	Moderate (26)	Mixed plantation woodland.
T222	r1a	N	N	Y	Y	Y	Y	Y							Moderate	Ponds: non-priority habitat. Holding water. In woodland edge. Fairly bare/ overshadowed margins. Pond 5 - no GCN.
T225	u1b5														n/a	Various buildings inc Iffield Golf Course clubhouse, stores, pump house, residential etc
T226	u (1160)														n/a	Introduced shrub (secondary code 1160)
T227	h2a	N	N	Y	Y	N	N	Y	N						Poor	Native sp. poor (beech dominated).
T228	w1g (37)	2	3	1	3	2	2	1	3	2	2	1	1	1	Poor (24)	Tiny parcel of B-L s.nat woodland. Some possible garden escapees.
T229	g3c	Y	Y	N	N	N	N								Poor	
T230	Individual trees	Y	N	Y	N	Y	Y								Moderate	8x individual trees (ave. large)
T231	w1g (37)	2	3	1	3	2	2	1	3	2	2	1	1	1	Poor (24)	Tiny parcel of B-L s.nat woodland. Some laurel.
T232	g3c	Y	Y	N	N	N	N								Poor	
T233	r1a	N	N	Y	Y	N	Y	N	Y	Y					Poor	Ponds: non-priority habitat. Holding water. Lots of good vegetation but high stock of fish (including carp). Pond 4 - no GCN.
T234	w1g (37)	2	3	3	3	2	2	2	3	2	2	1	1	1	Moderate (27)	Small parcel of B-L s.nat woodland surrounding pond.
T235	h3h	Y	Y	Y	N	N									Moderate	Mixed scrub intervening woodland parcels

T236	w1g (36)	1	3	3	3	3	2	1	3	2	1	1	1	2	Moderate (26)	B-L plantation woodland.
T237	w1g (36)	1	3	3	3	3	3	2	3	2	2	1	1	2	Moderate (29)	Mixed plantation woodland.
T238	w1g (36)	2	3	3	3	3	3	2	3	2	2	1	1	2	Moderate (30)	B-L plantation woodland. Occ. coniferous trees.
T239	g3c	Y	Y	N	N	N	N								Poor	With small/ medium scattered trees
T240	Individual trees	Y	N	N	N	Y	Y								Moderate	Trees in carpark.
T241	Individual trees	Y	N	N	N	Y	Y								Moderate	Line of coniferous trees in carpark
T250	u1c														n/a	Sandpits on Ifield Golf Course + other areas of unvegetated/unsealed ground
T251	u1b														n/a	Hardstanding near Ifield Golf Course entrance
T252	g4	N	N	Y	N	Y	Y	Y							Poor	Amenity grassland in carpark area of Ifield Golf Course. V sp. poor and damaged. V short mown.
T253	h3h	Y	N	Y	Y	Y									Moderate	Mixed scrub on grassland
T254	w1f (37)	3	3	3	3	3	3	3	3	2	2	2	2	2	Good (34)	Similar as T177 but not marked as ancient and s-n woodland on MAGIC. Marked as priority woodland habitat on MAGIC.
T255	w1g6	Y	N	N	N	Y									Poor	Ecologically valuable. Rough line of hazel, oak, crab apple - distinct from adjacent woodland.
T256	g4	N	N	Y	N	Y	Y	Y							Poor	Small lawned area, poorly managed
/	Individual trees	Y	N	N	Y	N	Y								Moderate	Small individual tree within the T256 polygon - not labelled individually
T257	u1c														n/a	
T258	w1g6	Y	Y	N	N	Y									Moderate	Ecologically valuable. Some disturbance of surrounding areas however
T259	h2a	Y	Y	Y	Y	N	N	Y	N						Moderate	Native sp. poor. Intact and well managed but right next to road.
EXTRA AREAS SURVEYED IN APRIL 2023																
1	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland parcel 1 - adjacent to hedgerow
2	g4	Y	N	N	N	N	Y	Y							Poor	Grassland parcel 2 - other side of the road
3	g4	N	N	N	Y	N	Y	Y							Poor	Grassland parcel 3 - remaining area
Ditch 1	r (191)	Y	N	Y	N	Y	N	Y	Y						Poor	Ditches along northern side of hedgerow, adjacent to grass verge. In two sections but one HCA done for both.
/	u1b														n/a	Remaining areas of road/pavement are hardstanding - no HCA required
EXTRA AREA SURVEYED IN APRIL 2024																
T37	S (81)	Y	Y	Y											Good	previously classified as s(17). But re surveyed as bramble scrub

T111	g4	Y	Y	N	N	N	Y	Y							Moderate	
T246	h2a	Y	N	Y	Y	Y	N	N	Y						Moderate	
T130	g4	Y	N	Y	N	Y	Y	Y							Moderate	
T23	g4	Y	N	Y	N	Y	Y	Y							Moderate	
T15	g4	Y	N	Y	N	Y	Y	Y							Moderate	
T256	r1 (50)	Y	N	Y	Y	N	N	N	Y						Poor	Additional ditch running on the eastern boundary of the woodland. Holding water at the time of the survey.
T257	r1 (50)	Y	N	Y	Y	N	N	N	Y						Poor	Additional ditch running on the southern boundary of the woodland. Holding water at the time of the survey.
T258	r1 (50)	Y	N	Y	Y	N	N	N	Y						Poor	Additional ditch through the field holding water at the time of the survey.
T259	g3c	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T260	g4	N	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T261	g3c	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T262	g3c	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T263	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T264	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T265	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T266	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T267	g4	Y	N	Y	Y	N	Y	Y							Moderate	Grassland strips around the road in the northeast of the Site.
T268	g4	Y	N	Y	N	N	Y	Y							Poor	Grassland strips around the road in the northeast of the Site.
T269	g4	N	N	Y	Y	N	Y	Y							Poor	Grassland strips around the road in the northeast of the Site.

## **APPENDIX 7**

### **DESIGNATED SITES**



**Legend**

Site Boundary

2 km Buffer from Site Boundary

**Designations**

Local Nature Reserve (LNR)

Site of Special Scientific Interest (SSSI)

Country Park

Area of Outstanding Natural Beauty (AONB)

Figure Title

Existing Statutory Designated Sites within 2km

Project Name

West of Ifield

Project No./Fility ID

1620007949-003

Date

June 2025

Figure No.

7.1

Revision

1.0

Prepared By

MFT

Scale

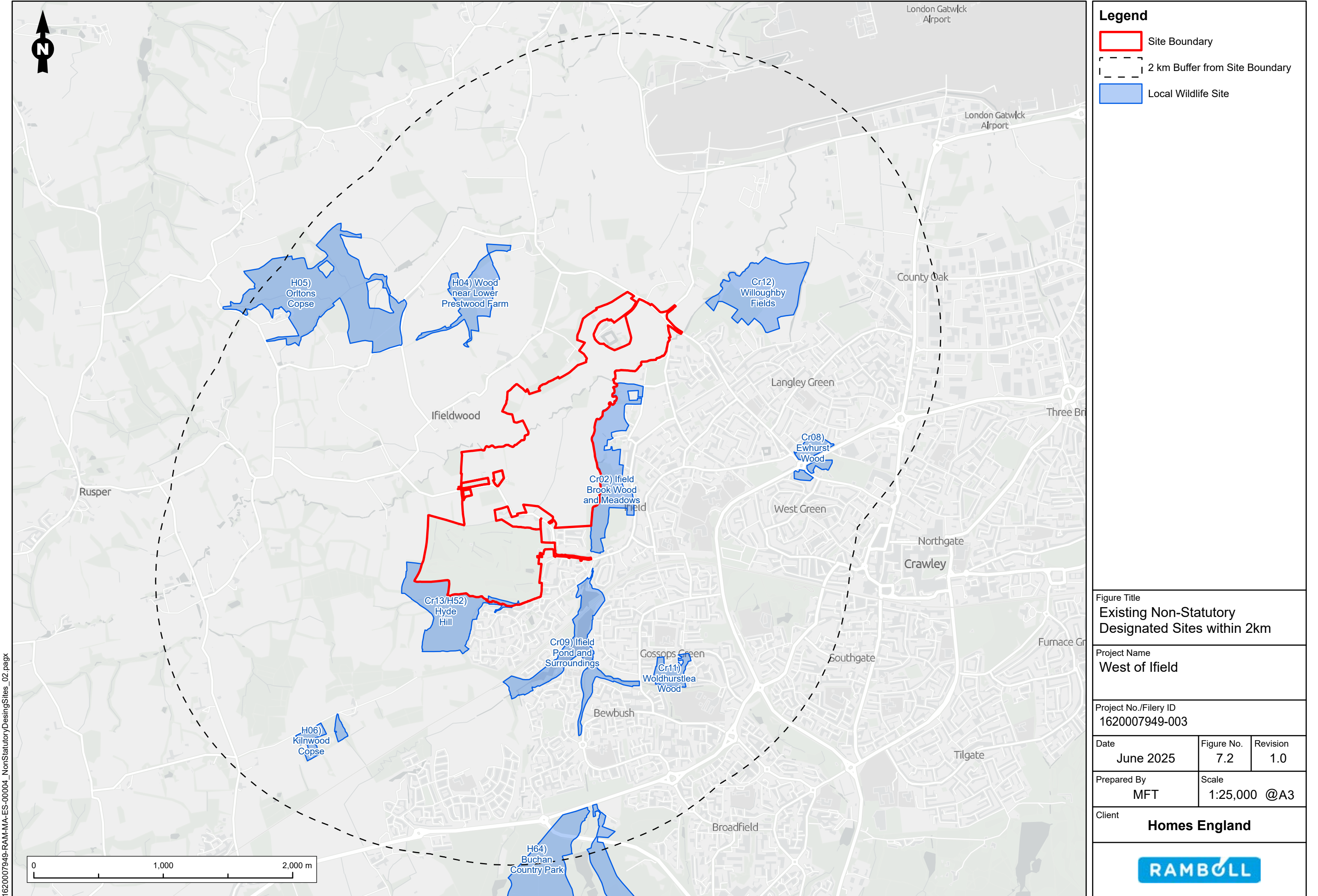
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Client

Homes England

RAMBOLL





- Legend**
- Site Boundary
  - 2 km Buffer from Site Boundary
  - Local Wildlife Site

Figure Title  
Existing Non-Statutory  
Designated Sites within 2km

Project Name  
West of Ifield

Project No./Fily ID  
1620007949-003

Date	Figure No.	Revision
June 2025	7.2	1.0

Prepared By	Scale
MFT	1:25,000 @A3

Client  
Homes England

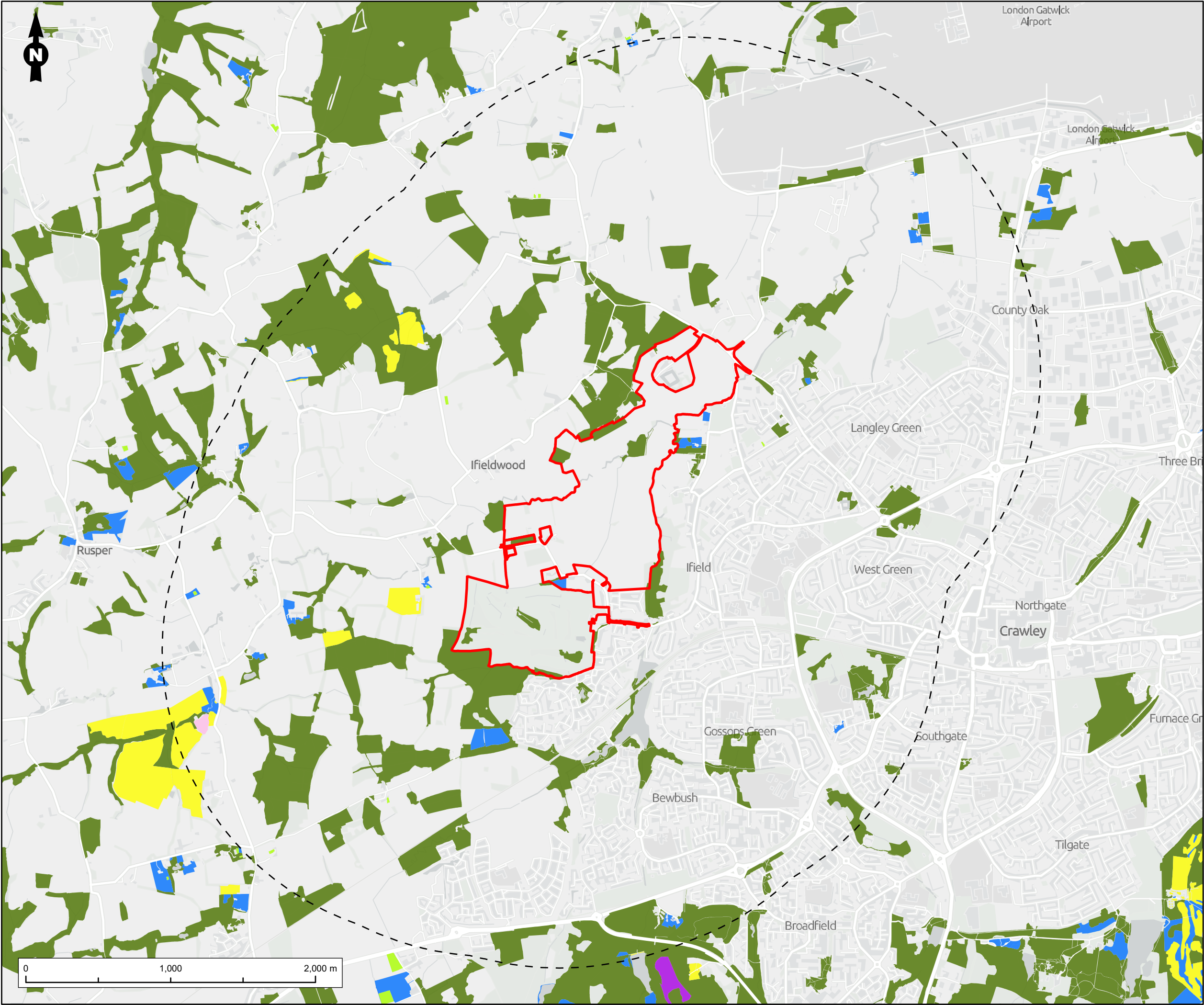


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Site Boundary

2 km Buffer from Site Boundary

Deciduous woodland

Good quality semi improved grassland

Lowland heathland

Lowland meadows

No main habitat but additional habitats present

Traditional orchard

Priority Habitat Inventory (PHI)

Figure Title

Habitats of Principal Importance within 2km

Project Name

West of Ifield

Project No./Fility ID

1620007949-003

Date

June 2025

Figure No.

7.4

Revision

1.0

Prepared By

MFT

Scale

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Client

Homes England

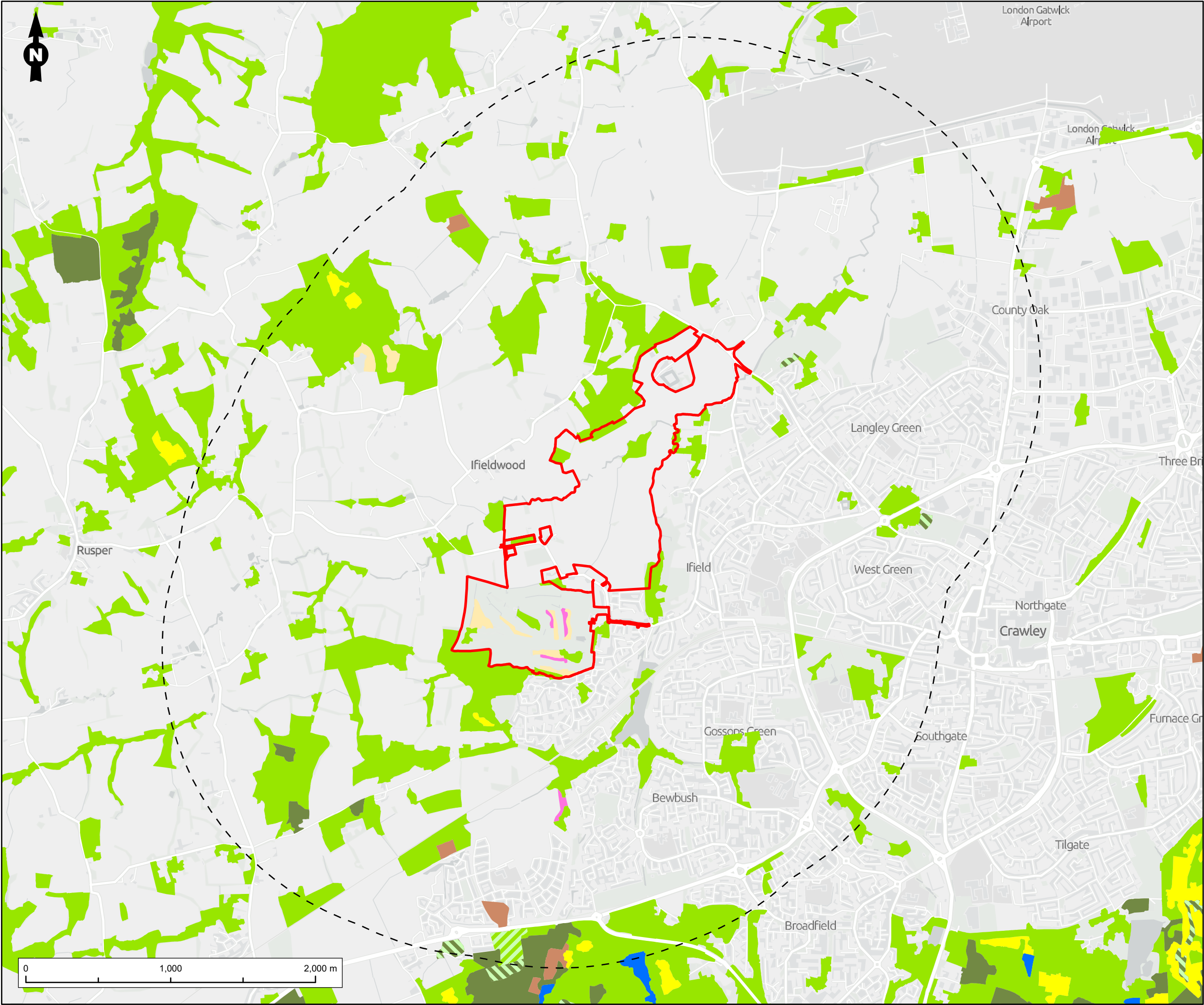
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**Legend**

Site Boundary

2 km Buffer from Site Boundary

**National Forest Inventory (England)****Non-Woodland**

Grassland

Open Water

**Woodland**

Assumed Woodland

Broadleaved

Conifer

Felled

Mixed Mainly Broadleaved

Mixed Mainly Conifer

Young trees

Figure Title

National Forest Inventory within 2km

Project Name

West of Ifield

Project No./Fily ID

1620007949-003

Date

June 2025

Figure No.

7.5

Revision

1.0

Prepared By

MFT

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Homes England

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## **APPENDIX 8**

### **ARCADIS BNG ASSESSMENT - DETAILED COMPONENT**

# **Biodiversity Net Gain Assessment**

West of Ifield - Phase 1 Infrastructure

JUNE 2025

Prepared By:

80 Fenchurch Street  
London EC3M 4BY  
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**Prepared For:**

Turner and Townsend Management Ltd

**Arcadis UK**

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Author – George Parry, Prasad Tonde, Consultant Ecologist,  
Shah Nawaz Jelil, Project Consultant

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Reviewer – Brandon Murray

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Approver – Steph Davies

# VERSION CONTROL

Version	Date	Author	Checker	Approver	Changes
1.0	29/05/2024	G. Parry	H. Corcoran	M. Girvan	N/A
2.0	29/08/2024	G.Parry	H. Corcoran	S Walters	
3.0	04/06/2025	P. Tonde, S. Jelil	B. Murray	S. Davies	

This report dated 04 June 2025 has been prepared for Turner and Townsend Ltd (the “Client”) in accordance with the terms and conditions of appointment (the “Appointment”) between the Client and **Arcadis UK** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

# CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Background.....	1
1.2	Site Location and Setting.....	3
1.3	BNG in Policy and Legislation.....	3
<b>2</b>	<b>METHODOLOGY .....</b>	<b>1</b>
2.1	Baseline Data .....	1
2.2	Biodiversity Metric.....	1
2.3	Baseline Trees .....	2
2.4	Post-Intervention Calculation.....	3
2.5	Strategic Significance .....	5
2.6	'Red Box' Errors.....	6
2.7	Watercourse information .....	6
2.8	Overlap Areas .....	6
2.9	Delay to starting habitat creation or enhancement .....	7
2.10	Limitations .....	7
<b>3</b>	<b>RESULTS.....</b>	<b>8</b>
3.1	Baseline.....	8
3.2	Post Intervention Habitat Change .....	8
<b>4</b>	<b>SUMMARY .....</b>	<b>16</b>
<b>5</b>	<b>REFERENCES .....</b>	<b>18</b>

## TABLES

Table 1: Biodiversity Metric Criteria .....	1
Table 2: Area based habitat distinctiveness valuation bandings. ....	2
Table 3: Translation of landscape habitat typologies to UK Habs habitat types .....	3
Table 4: Biodiversity Metric Post-Intervention Criteria .....	4
Table 5: Baseline Habitat Typology and Condition Summary) .....	8
Table 6: Habitat Change Summary .....	9
Table 7: Habitat Creation Summary .....	10
Table 8: Habitat Enhancement Summary.....	13

Table 9: Condition assessment criteria for rain garden habitat (created) .....	23
Table 10: Condition assessment criteria for urban tree habitat (created) .....	25
Table 11: Condition assessment criteria for broadleaved woodland habitat (created) .....	27
Table 12: Condition assessment criteria for hawthorn scrub habitat (created) .....	31
Table 13: Condition assessment criteria for Other neutral grasslands (created) .....	35
Table 14: Condition assessment criteria for Ornamental Rain Garden.....	37
Table 15: Condition assessment criteria for Modified grassland (enhanced to Moderate) .....	39
Table 16: Condition assessment criteria for Modified grassland (enhanced to Good).....	42
Table 17: Condition assessment criteria for Embankment seeding (created).....	45
Table 18: Condition assessment criteria for created hedgerow habitat .....	48
Table 19: Condition assessment criteria for created and enhanced ditches.....	52

## **APPENDICES**

### **APPENDIX A: BASELINE HABITAT PLAN**

### **APPENDIX B: POST INTERVENTION LANDSCAPE DESIGN**

### **APPENDIX C: BIODIVERSITY METRIC**

### **APPENDIX D: CONDITION ASSESSMENTS FOR POST-CONSTRUCTION HABITATS (CREATED AND ENHANCED)**

# 1 Introduction

## 1.1 Background

This Biodiversity Net Gain report (BNG) assesses the potential change in biodiversity value of the West of Ifield Phase 1 Infrastructure scheme. It has been prepared by Arcadis Consulting (UK) Ltd (Arcadis) on behalf of Homes England as a requirement to support the planning application to Horsham District Council (HDC) for the construction of the enabling infrastructure at the West of Ifield site. This comprises the Crawley Western Multi-modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road (herein referred to as the 'Proposed Development'. This is a component of a hybrid application, the description of which is:

*Hybrid planning application (part outline and part full planning application) for a phased, mixed use development comprising:*

*A full element covering enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road, supported by associated infrastructure, utilities and works, alongside:*

*An outline element (with all matters reserved) including up to 3,000 residential homes (Class C2 and C3), commercial, business and service (Class E), general industrial (Class B2), storage or distribution (Class B8), hotel (Class C1), community and education facilities (Use Classes F1 and F2), gypsy and traveller pitches (sui generis), public open space with sports pitches, recreation, play and ancillary facilities, landscaping, water abstraction boreholes and associated infrastructure, utilities and works, including pedestrian and cycle routes and enabling demolition.*

*This hybrid planning application is accompanied by an Environmental Statement.*

*This hybrid planning application is for a phased development intended to be capable of coming forward in distinct and separable phases and/or plots in a severable way.*

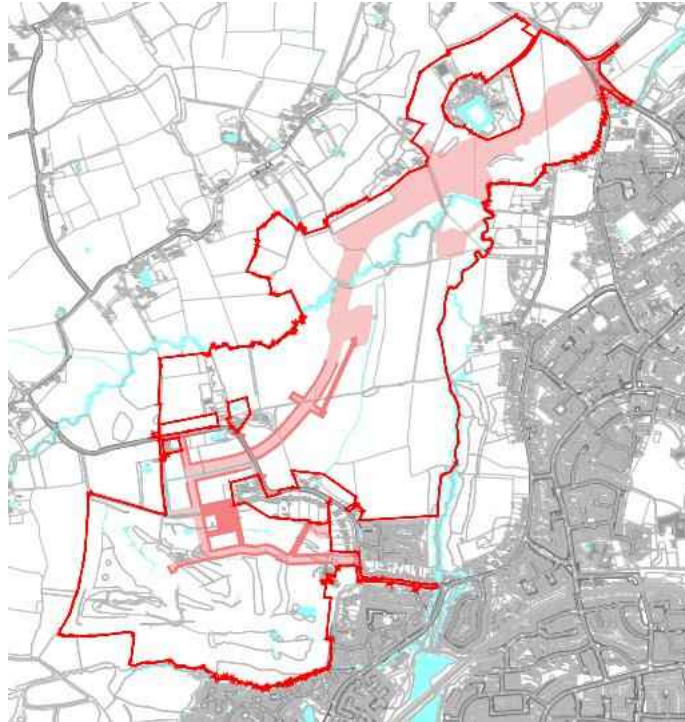
This report relates solely to the Phase 1 road redline, which is being submitted for full planning permission, and includes the enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road, supported by associated infrastructure utilities etc.. This report should be read alongside the wider Land West of Ifield BNG report (Ramboll, 2025). This BNG assessment document identifies the baseline biodiversity value, and the proposed interventions to achieve a minimum of 10% net gain in biodiversity, of the footprint of the proposed development in relation to the Phase 1, the highways infrastructure, and does not include the wider proposed development site. Phase 1a and 1b are the initial proposed development activities for a project that shall be delivered in phases over several years.

Homes England intends to redevelop approximately 172 hectares (ha) of Land West of Ifield within the administrative area of Horsham District Council (HDC) which immediately abuts Crawley Borough Council (CBC) boundary in West Sussex for a residential-led mixed use development.

The area of the proposed Phase 1 infrastructure works is referred to in this report as 'the Site'. The area of the Site is approximately 29.5ha. Image 1 details the wider West of Ifield housing development site boundary and the footprint of the proposed Phase 1a and 1b infrastructure scheme is shown in Image 2.



*Image 1: Land West of Ifield Outline application boundary*



*Image 2: Redline of the Phase 1a and 1b infrastructure detailed planning application*



A habitat survey was completed by Ramboll in August 2022. Further surveys were completed in April 2023 and in 2025 by Ramboll due to changes to the red line boundary. Details of the updated 2022, 2023 and 2025

surveys can be found within the Ramboll West of Ifield Biodiversity Assessment Report (Ramboll, 2025). This report outlines the baseline value of the Site, and the measures required to achieve a minimum of 10% net gain in biodiversity post-development.

## 1.2 Site Location and Setting

The wider Land West of Ifield site covers approximately 172 ha and is located to the west of Ifield near Crawley in West Sussex (see Image 3). The wider Land West of Ifield site is bounded by Charlwood Road in the north, beyond which lies Gatwick Airport. The site comprises predominantly agricultural land in the northern and central areas (dominated by arable and grazed pasture fields) and Ifield Golf Course in the south. A range of habitats are present throughout the site including grassland, woodland, scrub, a network of hedgerows and lines of trees and ponds. The River Mole flows west to east through the northern half of the site. The detailed application site for Phase 1 occupies approximately 29.5 ha through the centre of the proposed Development and is centred at Ordnance Survey (OS) Grid Reference TQ 24270 37769, at postcode RH11 0EL.

*Image 3: Aerial imagery of the area within which Land West of Ifield is proposed to be constructed.*



## 1.3 BNG in Policy and Legislation

In line with the 25 Year Plan for the Environment (HM Government, 2018) and the National Planning Policy Framework (MHCLG, 2024), new development should identify and pursue opportunities for securing measurable net gains for biodiversity and for the wider environment. The Environment Act 2021 followed by the Biodiversity Gain Site Register Regulations 2024 mandate the requirement for 10% Biodiversity Net Gain (BNG) for new developments in England from 12 February 2024. This has been inserted into Schedule 7A of the Town and Country Planning Act 1990 (by Schedule 12 of the Environment Act 2021). BNG is measured using the Statutory BNG Metric and guidance documents published by DEFRA.

## 2 Methodology

### 2.1 Baseline Data

A habitat survey was completed by Ramboll between 9 and 11 and 22 and 24 August 2022. Further surveys were completed in April 2023 and in 2025 by Ramboll due to changes to the red line boundary. Details of the updated 2022, 2023 and 2025 survey can be found within the Ramboll West of Ifield Biodiversity Assessment Report (Ramboll, 2025). Habitats were recorded using UK Habitat classification system (UKHab Ltd, 2023) and input into the Statutory Biodiversity Metric tool. Aerial imagery (Google Earth, 2024) and MAGIC mapping (MAGIC, 2024) were used to aid with UK Habitat classification.

All baseline habitat information utilised in this report is taken from the data collected by Ramboll. To avoid duplication, all baseline data details including condition assessments should be read from the Ramboll habitat survey report (Ramboll, 2025).

### 2.2 Biodiversity Metric

The purpose of this document is to estimate the potential net change in biodiversity value of the Phase 1 Site. This approach uses information on the habitats and features of the Site before and after the proposed habitat loss and mitigation through management to calculate a biodiversity value. This information was then used to calculate a change in the biodiversity value of the Site.

These calculations were undertaken using the Statutory Biodiversity Metric, a spreadsheet-based tool into which data can be entered to carry out BNG calculations (DEFRA, 2024a), following the corresponding User Guide (DEFRA, 2024b).

When considering baseline conditions, the metric takes account of several factors, detailed below in Table 1. The numbers in brackets show the multipliers used by the metric for each category.

Table 1: Biodiversity Metric Criteria

Evaluation	Values assigned	Criteria
Habitat type	UK habitat classification typologies. The unit for each of the habitat types is calculated and then multiplied by the size of this habitat. The unit number is based upon the habitat's distinctiveness, condition and strategic significance.	Based upon species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats.
Size of habitat parcel	Area measured in hectares and linear features measured in kilometres.	N/A. The sizes of the different proposed habitats were calculated using a Geographical Information System (GIS) based on the habitats presented on the Baseline Habitat Map within Appendix A. The area taken up by rural trees throughout the Site was calculated using the tree helper tool within the metric.
The distinctiveness of the habitat type	Value predetermined for each habitat type on a scale of Very Low (0), Low (2), Medium (4), High (6) and Very High (8)	See Table 2 for distinctiveness criteria.
The condition of each habitat parcel	Value assigned based on a scale of Poor (1), Fairly Poor (1.5), Moderate (2), Fairly	The condition of the habitat is defined as: "the biological 'working-order' of a habitat type judged against the perceived ecological optimum state for

Evaluation	Values assigned	Criteria
	Good (2.5) and Good (3). For some habitat types this is pre-determined	that particular habitat.” This provides a measure of variation in the quality of areas of the same habitat type.
Strategic significance	Value assigned based on a scale of Low (1), Medium (1.1) and High (1.15) strategic importance	Strategic significance assesses the value of habitats from the point of view of environmental objectives and preferred locations for biodiversity.  The strategic significance has been used from the Ramboll BNG survey and report.

Table 2 provides details of the distinctiveness bandings to which each area-based habitat is assigned.

*Table 2: Area based habitat distinctiveness valuation bandings.*

Distinctiveness band	Multiplier	Typical habitats
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act (HM Government, 2006) that are highly threatened, internationally scarce and require conservation action e.g. blanket bog.  Small amount of remaining habitat with a high proportion unprotected by designation.  Endangered or Critical European red list habitats.
High	6	Priority habitats as defined in Section 41 of the NERC Act (HM Government, 2006) requiring conservation action e.g., lowland fens.  Remaining Priority Habitats not in very high distinctiveness band & other red list habitats.
Medium	4	Semi-natural habitats not classed as a Priority Habitat but with significant wildlife benefit, e.g., mixed scrub.  One Priority Habitat (arable field margins).
Low	2	Habitat of low biodiversity value e.g., temporary grass and clover ley.  Agricultural and Urban land of lower biodiversity value.
Very low	0	Little or no biodiversity value e.g., hard standing or sealed surface  Urban – artificial structures which are un-vegetated, sealed surfaces or built linear features of very low biodiversity value.

## 2.3 Baseline Trees

To align with the Ramboll metric being produced for the wider Land West of Ifield outline application, tree areas were calculated using the tree helper tool in the metric. All trees were given a baseline condition of moderate (with the exception of one veteran tree that was given a condition of ‘high’. This tree is identified as an irreplaceable habitat within the metric.

## 2.4 Post-Intervention Calculation

The Site was reassessed for the conditions that will be present under the post-development proposal. The post-intervention landscape plan used for this calculation is illustrated within Appendix B. The landscape strategy contains created habitats, enhanced habitats and retained habitats. For the created habitats, the proposed typologies need to be translated from landscaping typologies into UK Habs habitat types. The translation used in the metric is presented in Table 3 below.

For retained habitats, the baseline habitat and condition was utilised. For enhanced habitats, the habitat condition that would be achieved through management as part of the road scheme was utilised (this is explained in more detail later in this report).

Table 3: Translation of landscape habitat typologies to UK Habs habitat types

Landscape typology	UK Habs typology	Notes
Grass Swales and Attenuation ponds	Other neutral grassland	Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state.
Hardstanding, cycleway, footpath	Developed land; sealed surface	These areas are all tarmac or sealed surface
Ornamental Rain Garden	Rain garden (urban typology)	Considering the species list is predominantly ornamental species a urban typology rain garden was considered the correct habitat type.
Transitional Rain Garden	Rain garden (urban typology)	Although the species mix would suggest a grassland typology may develop within these areas,, considering the locations alongside the road it was considered that the urban rain garden typology was more appropriate in this situation.
Meadow Rain Garden	Other neutral grassland	Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state.
Woodland Planting	Other woodland, broadleaved	Considering the seed mix proposed for the ground floor and the tree species proposed, a broadleaved woodland was considered the appropriate typology.
Grass Seeding	Other neutral grassland	Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state.
Watercourse	Ditch or culvert, as appropriate	Two short sections of ditch with a culvert beneath the newly created rows are to be created



Landscape typology	UK Habs typology	Notes
Temporary seeding of embankments	Other neutral grassland	Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state.
Hawthorn Planting	Hawthorn scrub	Hawthorn scrub will be created
Trees planted along road alignment	Urban Tree	The size of these was assumed to be small, with the area calculated using the tree helper in the metric. The number of trees was calculated from the landscape drawing.

When considering post-intervention calculations, the metric takes account of several factors, detailed below in Table 4.

Table 4: Biodiversity Metric Post-Intervention Criteria

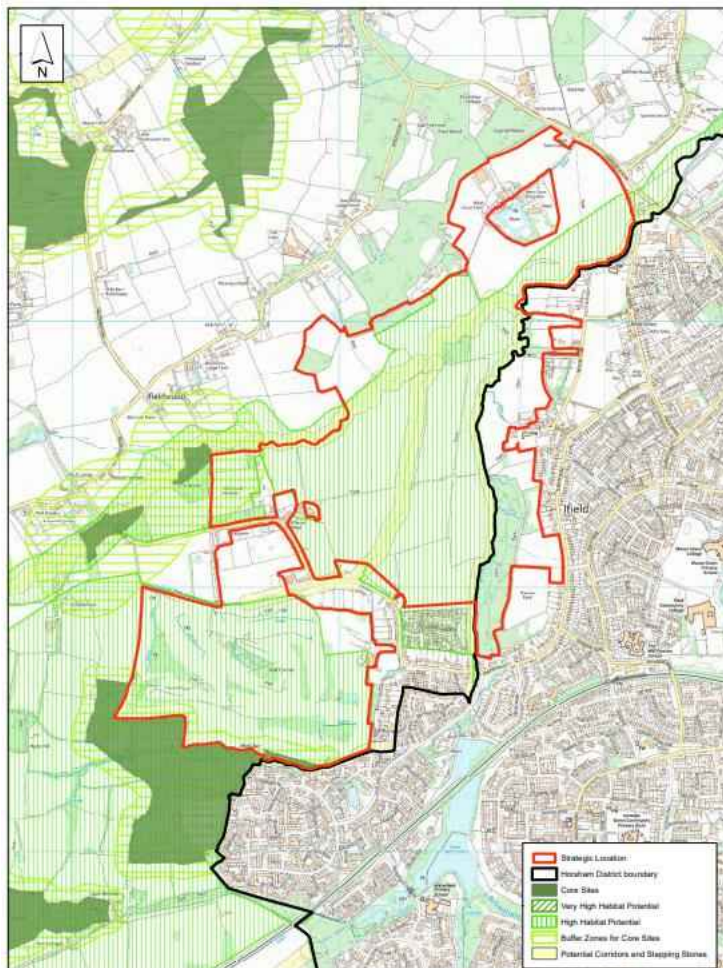
Factor	Criteria and Site-specific Condition
Difficulty categories	<p>The number of biodiversity units provided by each habitat within the Site was calculated in the same way as the baseline habitats but with the following multipliers: Very high (0.1); High (0.33); Medium (0.67); Low (1).</p> <p>Difficulty categories are based on standard scores that reflect how difficult the habitat is to create or restore and temporal risk (how long the habitat type takes to establish).</p>
Habitat Change	<p>Different habitats change scenarios are attributed different levels of risk (risk around the confidence in the successful establishment of habitats) and different multipliers are applied to reflect this. Two distinct habitat change scenarios are recognised in the Statutory Biodiversity Metric:</p> <p>Habitat creation - where one habitat type is replaced by another or the habitat is destroyed (e.g., by development works) and the same habitat is recreated.</p> <p>Habitat enhancement - where its distinctiveness and / or condition are improved.</p> <p>Enhancement carries less risk and can therefore provide a greater unit uplift.</p>
Spatial risk	<p>A separate risk multiplier is applied to post-intervention sites outside of the Site. This incentivises the use of sites near the intervention site, for ecological and social reasons. Higher multipliers are assigned to more distant sites which results in a decrease in the value of an off-site location with increasing distance.</p> <p>At this stage, post-development interventions are all being undertaken within the Site boundary and the wider development site so spatial risks are not relevant.</p>
Advanced and delayed habitat creation	<p>Advanced habitat interventions are encouraged within the metric (along with being good practice), by reducing the multipliers associated with time to target condition. Similarly delayed habitat interventions are discouraged, with delays resulting in increased time to target condition.</p>

Factor	Criteria and Site-specific Condition
'Pseudo' double counting areas	The total area input into the tool can be greater than the total area of the Site. This is due to the three-dimensional nature of certain habitats. For example, the area covered by a tree is approximately the area covered by its canopy, but if an area of grassland is underneath, both would be included in the metric. As such the area of the tree canopy is 'counted' twice and can result in the area in the metric being larger than the area of the Site.
Calculation of gains or losses	The net change in biodiversity or hedgerow units on and off-site is calculated within the tool by subtracting the baseline units from the post-intervention units. The overall net change is the sum of the change in units on-site and off-site. The percentage net gain is then calculated by dividing this overall net change by the number of baseline units on the Site
Changes in broad habitat type calculations	The UKHab classification system is hierarchical in structure, so specific habitat types can be grouped into broad habitat types. The changes in area and biodiversity units associated with each of these broad habitat types was calculated using the baseline and post-intervention data.
Areas excluded from the assessment	The metric is not designed to assess impacts to habitats within statutory designated sites or "irreplaceable" habitats. There are no irreplaceable habitats, such as ancient woodland, or statutory designated sites present within the Site and therefore all habitats were assessed.

## 2.5 Strategic Significance

Within the metric, the application of strategic significance was aligned with the BNG assessment of the wider site being conducted by Ramboll (Ramboll, 2025). The strategic significance for all baseline area-based habitat parcels and hedgerows within the Site that fall wholly or partially into the 'High Habitat Potential' area within the emerging Nature Recovery Network (NRN) for Horsham District Council has been determined as 'Formally identified in local strategy' (i.e. high strategic significance). The strategic significance for any baseline habitats and hedgerows outside of the 'High Habitat Potential' area within the NRN, have been determined as 'Location ecologically desirable but not in local strategy' (i.e. medium strategic significance). The NRN is shown below in Image 4.

Image 4: Horsham District Council emerging Nature Recovery Network used to inform the strategic significance



## 2.6 'Red Box' Errors

The Statutory Biodiversity Metric tool will show an 'error' flag or 'red box' error when a problem has been encountered and point the user to where this may have occurred. These could relate to mistakes or broken rules in any of the tabs of the Statutory Biodiversity Metric; 'red-box' errors can also be justified, for example, if it's an outline application, if there are exceptional ecological circumstances, or if the plan is to purchase statutory credits from Natural England.

## 2.7 Watercourse information

All watercourse information was extracted from the Ramboll baseline. For further information on the condition assessments of these features please refer to the Ramboll Habitat Survey (Ramboll, 2025).

## 2.8 Overlap Areas

There are areas of 'overlap' the detailed application as part of Phase 1 and the subsequent development as part of the wider Land West of Ifield scheme. These areas are predominantly where land will be utilised for the road construction but may then subsequently be redeveloped as part of the wider Land West of Ifield development. Within this metric, the post-construction habitats of these areas are assumed to be as it would be upon the completion of the Phase 1 scheme. This is considered appropriate as this will be the status should subsequent developments not commence.



## **2.9 Delay to starting habitat creation or enhancement**

Within the metric, a two-year delay has been applied to all habitat creation and enhancement in line with the proposed construction timeline. This matches the delay applied in the Ramboll metric (Ramboll, 2025).

## **2.10 Limitations**

The habitat data was collected using the metric 4.0 condition assessments methodology, but since this time the Statutory Biodiversity Metric was released and has been used to assess the baseline and post-intervention biodiversity value. The condition assessments for each habitat have not changed between metric 4.0 and the statutory metric so no conversion was required for the habitat condition assessments and no differences are expected. Update surveys have been conducted accruing to the Statutory Metric approach.

Survey data from Ramboll has been used to calculate the biodiversity baseline of the Site, there were limitations with those assessments in terms of extreme drought conditions for the distinctiveness and habitat condition assessments, particularly the grasslands. The distinctiveness and condition of the habitats have not been confirmed by Arcadis. Neither have they been agreed with the Local Planning Authority.

## 3 Results

### 3.1 Baseline

This section details the UK Habitat Classification typologies and their condition and strategic significance scores. The condition assessments for each of the habitat areas is detailed in Appendix D.

The Site predominantly comprised fields of modified grassland, cereal crops and other neutral grassland. The fields are bordered by hedgerows, mixed scrub and parcels of other broadleaved woodland and lowland mixed deciduous woodland. The baseline habitats are displayed in the Baseline Habitat Plan in Appendix A. Table 5 provides a summary of each habitat type within the Site boundary and the conditions. A full description of the habitats, including species, present within the Site is provided in the Ramboll West of Ifield BNG Assessment Report (Ramboll, 2025).

While there are areas of ancient woodland and designated sites within the wider site, these areas are not within the redline boundary of the Phase 1 infrastructure works, referred in this report as the Phase 1 Site.

Table 5 details the baseline habitats and their size and condition. A breakdown of the different condition assessments and strategic significance can be found within the BNG calculator appended as Appendix C.

Table 5: Baseline Habitat Typology and Condition Summary)

Habitat	Total Area (ha)/ Length (km)	Condition
Artificial unvegetated, unsealed surface	0.132626	N/A
Cereal crops	5.152063	N/A
Developed land; sealed surface	1.972251	N/A
Lowland mixed deciduous woodland	0.022929	Moderate / Good
Mixed scrub	0.675659	Poor / Moderate / Good
Modified grassland	18.00056	Poor / Moderate
Other neutral grassland	1.700296	Poor / Moderate
Other woodland; broadleaved	1.632571	Moderate / Good
Sparsely vegetated land	0.067014	Poor / Moderate / Good
<b>Total Area</b>	<b>29.337</b>	<b>N/A</b>
Species-rich native hedgerow with trees	0.774 km	Poor / Moderate / Good
Line of trees	0.258 km	Moderate
Non-native and ornamental hedgerow	0.107 km	Poor
Other river and streams	0.05 km	Fairly Good
Ditches	1.13 km	Poor
<b>Total Length</b>	<b>2.32 km</b>	<b>N/A</b>

### 3.2 Post Intervention Habitat Change

Several habitats on the Site are proposed to change to facilitate the Proposed Development. This includes transforming areas of cereal crops, grassland and small areas of mixed scrub and woodland to habitats for the proposed road layout and associated footpaths, cycle paths and verges. This is detailed below in

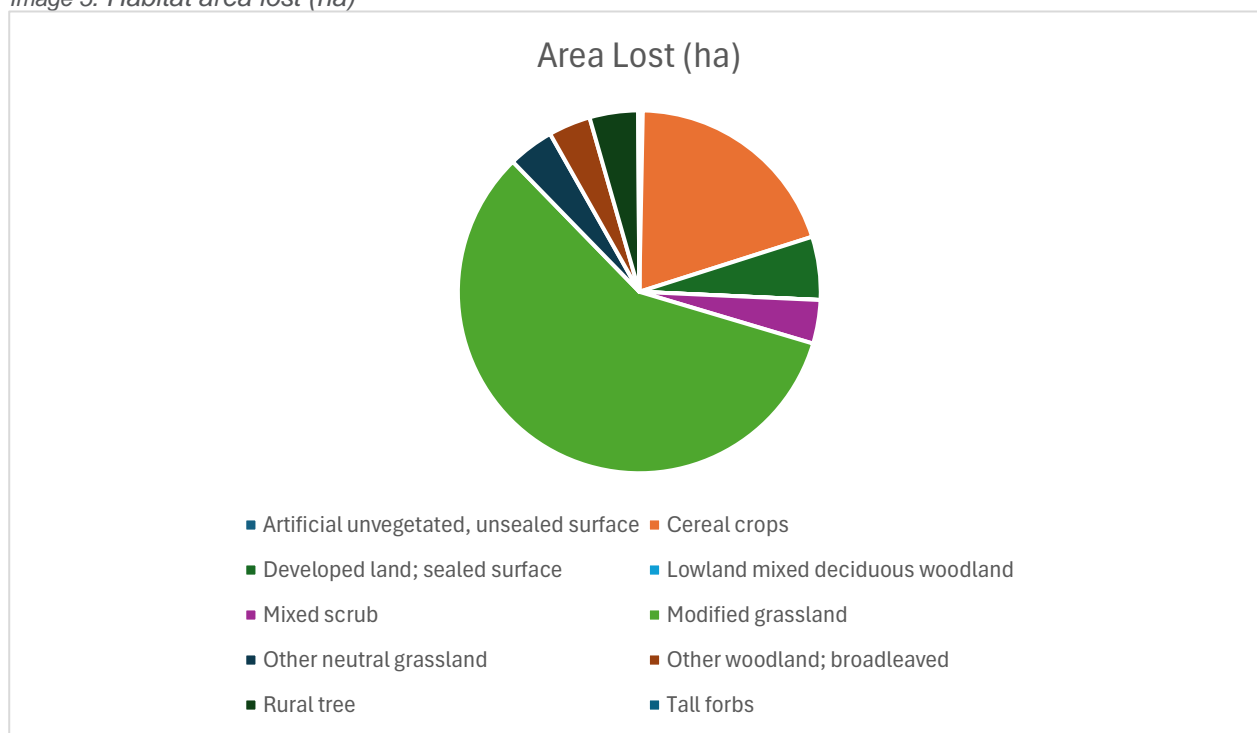
Table 6 summarises the proposed habitat changes (i.e. where habitat is retained, enhanced or lost) as a result of the development. The post development landscape plan in Appendix B illustrates the Site post intervention.

Table 6: Habitat Change Summary

Habitat	Total Area/Length		
	Retained	Enhanced	Lost
Artificial unvegetated, unsealed surface	0.054265		0.078361
Cereal crops	0.083815		5.068248
Developed land; sealed surface	0.259471		1.442616
Lowland mixed deciduous woodland	0.131461		0.000129
Mixed scrub		0.001049	0.9963
Modified grassland		3.047457	14.884643
Other neutral grassland	0.592107		1.049247
Other woodland; broadleaved	0.619389		0.962365
Rural tree	0.1587		1.1075
Tall forbs	0.039904		0.026897
<b>Total Area</b>	<b>c.1.939 ha</b>	<b>c.3.049 ha</b>	<b>c. 25.616 ha</b>
Hedgerows	0.84 km	0 km	0.3 km
Other rivers and streams	0.054 km	0 km	0 km
Ditches	0.084 km	0.57 km	0.48 km
<b>Total Length</b>	<b>0.978 km</b>	<b>0.57 km</b>	<b>0.78 km</b>

Most of the habitat loss is agricultural land, largely pasture and cereal crop followed by woodland and mixed scrub with some other neutral grassland, presented in Image 5. There is a loss of linear habitat, 0.3 km of hedgerow, and 0.48 km of ditches.

Image 5: Habitat area lost (ha)



The total area of habitat lost to the development is 24.51 ha; 0.3 km of hedgerow is also lost. Table 7 summarises the habitat composition of the Site boundary post development and the target condition for each habitat type. For each habitat created the target condition (explaining how this is considered achievable) is shown in Appendix D.

Table 7: Habitat Creation Summary

Proposed Habitat	Total Area or Length	Target Condition	Rationale for Target Condition
Developed land; sealed surface	9.112	N/A - Other	N/A - Other
Embankment seeding	0.8948	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Grass swales and Attenuation ponds	3.2345	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Hawthorn scrub	0.2054	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Meadow rain garden	0.2025	Moderate	A target of moderate condition is considered appropriate for this habitat

Proposed Habitat	Total Area or Length	Target Condition	Rationale for Target Condition
			when associated with a road scheme and likely maintenance regime.
Ornamental rain garden	0.1004	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Other neutral grassland	9.8211	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Other woodland; broadleaved	0.4478	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Other woodland; broadleaved	0.2826	Good	A target of 'good' condition should be endeavoured for all areas of woodland planting within the nature recovery network area.
Rain garden	0.1298	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Urban tree	0.8387	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
Watercourse footprint	0.0457	N/A - Other	N/A - Other
Lowland Mixed Deciduous woodland	0.158 ha	Poor	<p>The intention is to create new parcel of lowland mixed deciduous woodland (LMDW), adjacent to existing LMDW. This approach will likely promote natural regeneration and successful establishment of LMDW.</p> <p>The woodland is expected to take 10 years to establish and reach 'poor' condition, however and ecologically diverse woodland in 'moderate' condition may be achieved through appropriate long-term management for more than 30 years. Habitat management actions include those that:</p> <ul style="list-style-type: none"> <li>• Manage woodlands according to the UK Forestry</li> </ul>

Proposed Habitat	Total Area or Length	Target Condition	Rationale for Target Condition
			<p>Standard (Forestry Commission 2023);</p> <ul style="list-style-type: none"> <li>• Maintain structural diversity with mature trees and scrub of varying age to provide a wide range of habitats. Ensure continuity of woodland by regeneration or replanting when necessary;</li> <li>• Maintain 'naturalness' of woods where possible, avoiding sudden and drastic modification of woods;</li> <li>• Maintain woodland 'edge habitat' to encourage a wide variety of flora and fauna;</li> <li>• Maintain open spaces such as ridges and clearings to provide sheltered sunny areas. This encourages the growth of flowering plants which provide nectar and pollen for insects. If possible, the open areas should include bare ground and low and high vegetation;</li> <li>• Leave any wet areas such as streams and ponds undisturbed;</li> <li>• Maintain a range of dead wood, particularly for saproxylic invertebrates, in both shady and sunny situations. This will also encourage fungi which provide food for invertebrates and birds;</li> <li>• Maintain the undisturbed soil structure; and</li> <li>• Allow natural regeneration of woodlands wherever possible.</li> </ul>
<b>Total Area</b>	<b>25.36* ha</b>	<b>N/A</b>	
Species-rich native hedgerow with trees	0.033 km	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.

Proposed Habitat	Total Area or Length	Target Condition	Rationale for Target Condition
Ditches	0.119 km	Moderate	A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime.
<b>Total length</b>	<b>0.152 km</b>	<b>N/A</b>	N/A - Other

\*NB: the increase in area from the baseline relates to double counting of tree areas (see methodology for further detail).

Post development, areas of retained habitats will be enhanced. These include retained areas of modified grassland and mixed scrub and lengths of ditch. All retained areas of modified grassland (poor and moderate condition) and scrub (poor condition) will be enhanced. Details of which ditches are to be enhanced are presented in the BNG Statutory Biodiversity Metric calculator. Table 8 summarises the proposed habitat enhancement as part of the development and the target condition for each habitat type. For each habitat enhancement, the target condition (explaining how this is considered achievable) is shown in Appendix D.

Table 8: Habitat Enhancement Summary

Baseline Habitat	Area or length	Baseline Condition	Proposed Habitat	Target condition	Rationale
Modified grassland	1.369 ha	Poor	Other Neutral Grassland	Moderate	When brought under a management regime, it is considered that areas of poor condition modified grassland will be able to be managed to achieve a moderate condition other neutral grassland. This will be through removal of nitrogen inputs, over seeding to increase species diversity as required and changed ongoing management.
Modified grassland	1.677 ha	Moderate	Other Neutral Grassland	Moderate	When brought under a management regime, it is considered that areas of poor condition modified grassland will be able to be managed to achieve a moderate condition other neutral grassland. This will be through removal of nitrogen inputs, over seeding to increase species diversity as

Baseline Habitat	Area or length	Baseline Condition	Proposed Habitat	Target condition	Rationale
					required and changed ongoing management.
Mixed scrub	0.001 ha	Poor	Mixed scrub	Moderate	When brought under a management regime, it is considered that areas of poor condition mixed scrub will be able to be managed to achieve a moderate condition
<b>Total Area</b>	<b>3.05 ha</b>	<b>N/A</b>			
Ditches	0.57 km	Poor	Ditches	Moderate	<p>When brought under a management regime, it is considered that poor condition ditches will be able to be managed to achieve a moderate condition.</p> <p>In line with Ramboll Recommendations (BNG Report, Ramboll 2025), it is assumed that all ditches to be retained can be improved through the following actions to achieve 'Moderate' condition through design and management:</p> <ul style="list-style-type: none"> <li>• Maintaining good water quality, with clear water (low turbidity) and no pollution.</li> <li>• Planting a range of emergent, submerged and floating-leaved plants so that there are than 10 species of emergent, floating or submerged plants present in a 20 m ditch length.</li> <li>• Planting a fringe of aquatic marginal vegetation along more than 75% of the ditch.</li> <li>• Maintaining less than 10% cover of filamentous algae and or duckweed</li> </ul>



Baseline Habitat	Area or length	Baseline Condition	Proposed Habitat	Target condition	Rationale
					<p>Lemna spp by minimising eutrophication.</p> <ul style="list-style-type: none"> <li>• Minimising physical damage to less than 5% of the ditch, by preventing damage from machinery use or storage, or any other damaging management activities.</li> <li>• Maintaining sufficient water levels with a minimum summer depth of approximately 0.5 m in minor ditches and 1 m in main drains. This will be informed by the Flood Risk Assessment at detailed design stage.</li> <li>• Ensure that less than 10% of the ditch is heavily shaded.</li> <li>• Ensure that there is an absence of floral and faunal invasive non-native species (INNS).</li> </ul>
<b>Total Length</b>	<b>0.57 km</b>	<b>N/A</b>			

## 4 Summary

The headline results of the BNG assessment for the Site, using the Statutory Biodiversity Metric calculator are presented below. It should be noted that this assessment only assesses the Phase 1 works, and the outcome of this assessment should be considered holistically with the wider West of Ifield Development, reported in the Ramboll BNG Report (Ramboll 2025).

Overall, there is a gain of 8.58 habitat units, a 6.19% increase in overall biodiversity value of habitat units. There is an initial loss of modified grassland, but despite this large loss, grassland habitat units are responsible for most of the biodiversity unit delivery in the post development plans. This is provided through the enhancement of existing areas of grassland and planting of new areas of other neutral grassland.

To achieve 10% biodiversity net gain, an additional 5.28 habitat units will be required. In the Phase 1 area, trading rules are met with the exception of habitat creation for medium and low distinctiveness habitats (which are considered deliverable within the wider Ifield site or through other approaches). Medium and low distinctiveness units would need to be delivered elsewhere, this could be delivered on the wider Land West of Ifield site or through a registered habitat bank or through the purchase of statutory credits.

**N.B. within the Phase 1 scheme a single veteran tree, which is considered an irreplaceable habitat is being removed. Within the metric this cannot be accounted for and therefore will always be considered a loss of biodiversity value.**

There is currently an 8.1% loss in hedgerow units due to the removal of hedgerows. It is not possible for the hedgerow units to be recovered within the Site boundary due to a limited availability of area and an aspiration to keep an open nature to the scheme. The loss of hedgerow biodiversity units is expected to be accounted for in the West of Ifield housing development. An additional 2.73 hedgerow units would be required to deliver 10% net gain.

There is currently projected to be a 2.25% loss in watercourse units. An additional 0.72 Water course units would be required to deliver a 10% net gain.

All of these results are presented in Image 6.

Image 6: Habitats, hedges and watercourse units for baseline and post-intervention scenarios and net change

On-site baseline	Habitat units	138.60	
	Hedgerow units	15.08	
	Watercourse units	5.86	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	147.19	
	Hedgerow units	13.86	
	Watercourse units	5.72	
On-site net change (units & percentage)	Habitat units	8.58	6.19%
	Hedgerow units	-1.22	-8.10%
	Watercourse units	-0.13	-2.25%

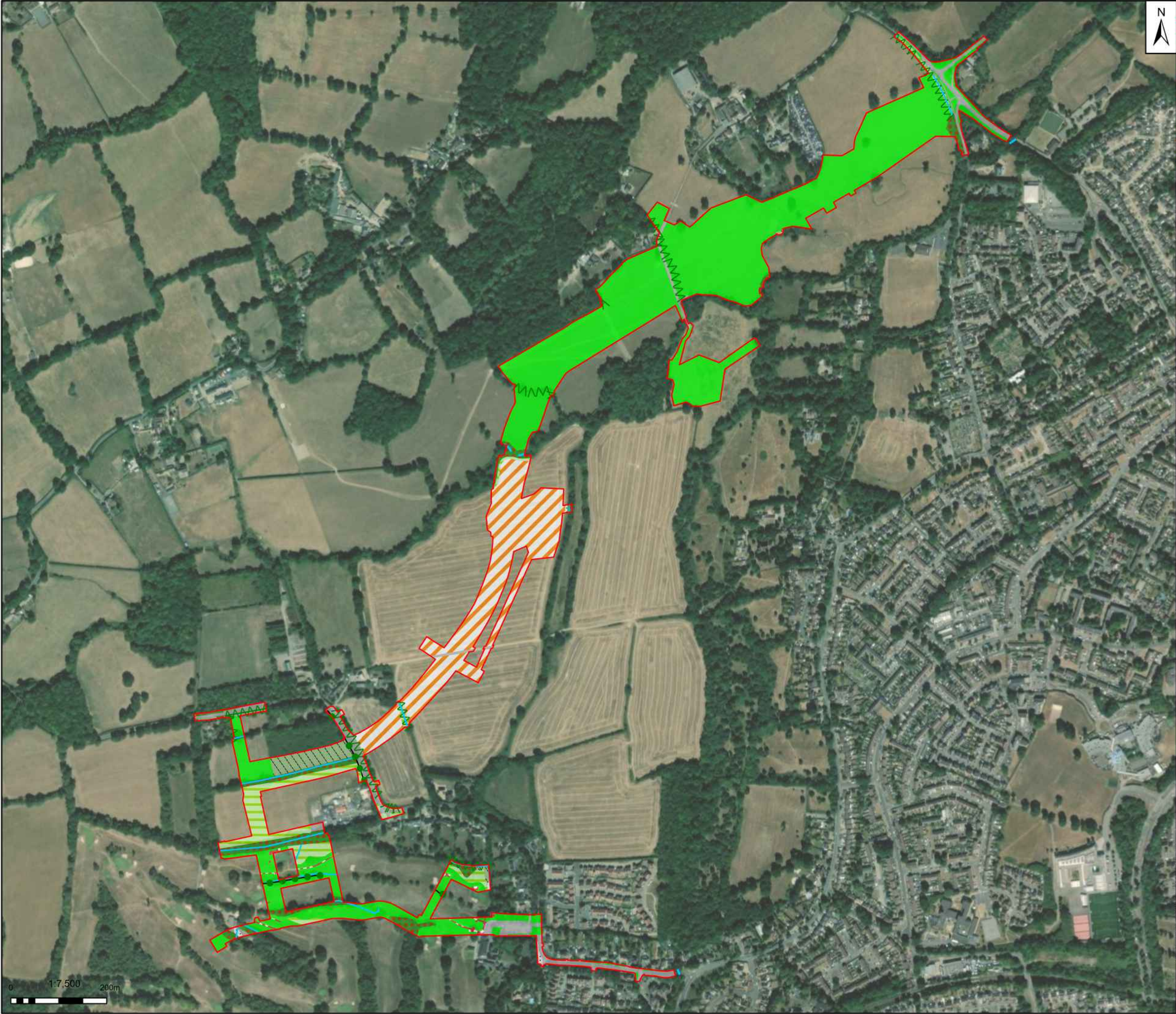
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	8.58		
	Hedgerow units	-1.22		
	Watercourse units	-0.13		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	6.19%		
	Hedgerow units	-8.10%		
	Watercourse units	-2.25%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unacceptable loss of irreplaceable habitat recorded - no bespoke compensation for losses has been agreed ▲				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	138.60	152.46	5.28
Hedgerow units	10.00%	15.08	16.59	2.73
Watercourse units	10.00%	5.86	6.44	0.72

## 5 References

- DEFRA (2024a). Statutory Biodiversity Metric Calculation Tool. Available online at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Last accessed 05/04/2024].
- DEFRA (2024b). Statutory Biodiversity Metric – User Guide. website [online] Available online at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Last accessed 05/04/2024].
- Forestry Commission (2023). The UK Forestry Standard The governments' approach to sustainable forest management. Available at: [https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised\\_UK\\_Forestry\\_Standard\\_-\\_effective\\_October\\_2024.pdf](https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised_UK_Forestry_Standard_-_effective_October_2024.pdf) [Accessed June 2025]
- Google Earth (2024). website location [https://www.google.co.uk/intl/en\\_uk/earth/](https://www.google.co.uk/intl/en_uk/earth/). [Accessed February 2024].
- HM Government (2006). *Natural Environment and Rural Communities Act 2006*. [online] Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents>
- HM Government (2018). 'A Green Future: Our 25 Year Plan to Improve the Environment'. Available at <https://www.gov.uk/government/publications/25-year-environment-plan>.
- HM Government (2021). The Environment Act (2021). website [online] Available online at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>.
- Horsham (2021). Horsham District Council Nature Recovery Network Report. Available at: <https://www.horsham.gov.uk/climate-and-environment/wilderhorshamdistrict/horsham-district-nature-recovery-networks/horsham-district-nature-recovery-network-report>.
- MAGIC (2023). Multi-Agency Geographical Information for the Countryside <https://magic.defra.gov.uk/MagicMap.aspx> [Accessed February 2024].
- National Planning Policy Framework (MHCLG, 2024)
- Ramboll (2025). West of Ifield Habitat Report, Ramboll, United Kingdom.
- Ramboll (2025). West of Ifield Biodiversity Net Gain Assessment Report – 1620007949. Ramboll, United Kingdom.
- Sussex (2009). The Sussex Biodiversity Opportunity Areas. Sussex Biodiversity Partnership, United Kingdom.
- UKHab Ltd (2023). UK Habitat Classification Version 2.0. Available at: <https://www.ukhab.org>.

# Appendix A: Baseline Habitat Plan





N

Red Line Boundary

Hedgerow (priority habitat)

Other hedgerows

Ditches

Rivers and streams

Line of trees

Arable and horticulture

Other neutral grassland

Modified grassland

Mixed scrub

Sparsely vegetated land

Developed land, sealed surface

Artificial unvegetated unsealed surface

Lowland mixed deciduous woodland

Other woodland, broadleaved

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01	14/0/25	INITIAL ISSUE	RM	BE	BM
Rev	Date	Description	Drawn	Check	Approv

Client:

PROJECT:  
WEST OF IFIELD

Site  
West of Ifield

Client  
Homes England  
Arpley House, 110 Birchwood Boulevard,  
Birchwood,  
Warrington  
WA3 7QH

Registered office:  
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Title:

UK Habitats Plan

Designed	B. Ellis	Date	14 MAY 25	Signed	
Drawn	R. Millman	Date	14 MAY 25	Signed	
Checked	B. Ellis	Date	14 MAY 25	Signed	
Approved	B. Murray	Date	14 MAY 25	Signed	
Scale:	1:7,500	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	10051123		

Suitability Description:

For Information

Drawing Number:  
10051123-ARC-30-1A-DR-LA-00001

Revision:  
P01



# Appendix B: Post Intervention Landscape Design