

**Whitcher Wildlife Ltd.
Ecological Consultants.**



**LAND SOUTH OF DONCASTER ROAD,
DARFIELD, DEVELOPMENT PHASE TWO.**

OS REF: SE 40239 04991.

BIODIVERSITY NET GAIN ASSESSMENT.

Ref No: 240123/PHASE2/BNG/1.

Date: 31st March 2025.

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1. INTRODUCTION.

1.1. A hybrid planning application is being submitted for the development of a large residential estate to the south of Doncaster Road, within the village of Darfield, Barnsley. The application is for full planning permission within the northern section of the development, known as 'Phase one', and for outline planning permission within the southern section of the site, known as 'Phase two'. Phase one also includes a drainage basin which will be situated to the south of the development.

1.2. Whitcher Wildlife Ltd were therefore commissioned to undertake a Biodiversity Net Gain (BNG) assessment of the entire site, to determine the baseline calculations of the entire survey area and determine what is required to allow the development to achieve a net gain.

1.3. Development plans for phase two are not yet finalised but a preliminary layout has been designed. Whilst unlikely to be the final report for phase two, this report shows both the baseline and post-works score of the site as shown at present.

1.4. An initial site visit was carried out on 17th January 2024 when a Preliminary Ecological Appraisal (PEA) was carried out. This ascertained rough baseline calculations including broad habitats and sizes, but detailed calculations could not be done due to survey being carried out well outside the optimum survey season.

1.5. Repeat visits were therefore undertaken throughout June 2024 to allow for an updated assessment of the habitats, including for condition assessments of each habitat parcel. A Rivers Condition Assessment (RCA) was also carried out on 21st March 2025 to allow a full BNG assessment of the watercourses across the site. A combination of both the initial survey and these updated surveys make up the findings of this assessment. Details of all condition assessments can be found within the accompanying condition assessment sheets.

1.7. Certain habitats on site span across both phase one and two of the development and therefore, their habitat descriptions are included in both the phase one and phase two reports. However, only their relevant areas have been included within the calculations. The included the following habitats: **W1, W2, W4, S2, S4** and both watercourses.

1.8. Two further BNG reports will accompany this one. One of which will cover phase one of the development, and the final one will cover the site as a whole. All will be accompanied by the relevant statutory metric.

2. SURVEY METHODOLOGY.

2.1. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

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

2.3. The survey area was walked where access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the UK Habitat Classification methodology to identify the primary habitat types throughout the survey area. All primary habitats are accompanied by secondary codes which are used to add further specific details where necessary. Each primary habitat and unique set off secondary codes will be shown individually in the appended annotated map.

2.4. All habitat surveys, including the initial Preliminary Ecological Appraisal were undertaken by Mitchel Greenhalgh, Managing Director of Whitcher Wildlife, and an Ecological Consultant with an array of experience in conducting surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a level two Natural England survey licence in respect of both bats and great crested newts, a NatureScot licence in respect of bats and Natural England class licences for various invertebrates. He is also FISC level 4. He has attended courses run by CIEEM, the Species Recovery Trust and the FSC and also holds a BSc in environmental science attained from the University of Leeds. He is an Associate member of CIEEM and he is therefore committed to continuous professional development.

2.5. The River Condition Assessments (RCA) were carried out by Ruth Georgiou BSc, MCIEEM. Since 2004 Ruth has had experience in a professional capacity as a Wildlife Consultant carrying out ecology surveys and phase I habitat surveys. As a full member of CIEEM Ruth is subject to peer review on an annual basis. Ruth holds Natural England survey licences in respect of bats, great crested newts and white clawed crayfish and has held her own or has been named ecologist on site specific licences for badgers, great crested newts and bats. She also holds a degree in Environmental Science (BSc) and has successfully completed a number of courses run by CIEEM, BCT and FSC in the relative protected species, carrying out phase I habitat surveys and BNG

assessments. Ruth is also accredited to undertake MoRPh assessments to establish the condition of flowing watercourses to inform BNG assessments.

3. SITE DESCRIPTION.

3.1. The Survey Area.

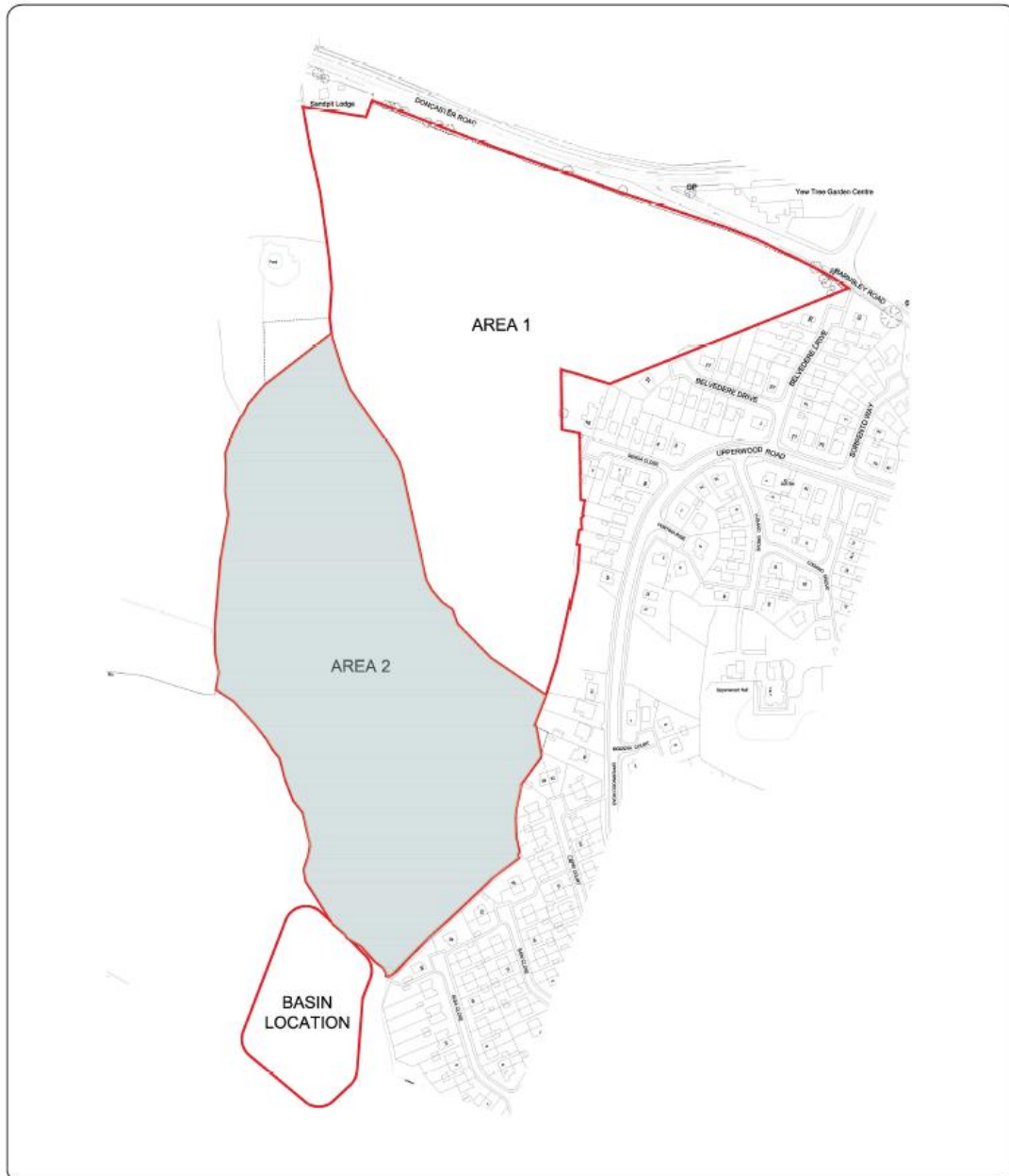
3.1.1. The overall survey area comprises mainly arable land, separated into two main fields. It is located to the west of the north end of the village of Darfield, south of Doncaster Road and west of Upperwood Road and the 'Italian' estate.

3.1.2. Historic aerial imagery and maps show that the bulk of the site has been arable for a considerable length of time, having never been shown as land used for any other purpose.

3.1.3. The aerial map below shows the approximate location of the entire survey area, marked by the red shape.



3.1.4. However, phase two comprises only the southern section, which is shown as 'Area 2' on the below drawing. The red line of these areas has been adjusted slightly since the drawing was produced but is still broadly accurate.



3.1.5. The further surroundings comprise predominantly further arable land, residential housing estates, and scattered woodland and grassland pockets.

3.2. Description of Habitats.

3.2.1. Appendices I and II of this report contain maps marked up with the varying habitats within phase one. The habitats within phase two are: -

- c1c – Cereal Crops
- g3c – Other Neutral Grassland

- w1f7 – Other Lowland Mixed Deciduous Woodland
- h3h – Mixed Scrub
- h3d – Bramble Scrub
- r2 – Other Rivers and Streams

3.2.2. c1c – Cereal Crops.

Secondary codes: 516 active management.

The majority of phase two is made up by a large arable field within the survey area.



3.2.3. g3c – Other Neutral Grassland.

3.2.3.1. Secondary codes: 10 scattered scrub– **ONG3**.

To the south of the arable field but north of the watercourse, there is a grass margin which comprises a mixture of coarse grasses, tall forbs and typical riparian species. These include reed canary grass (*Phalaris arundinacea*), false oat grass (*Arrhenatherum elatius*), soft brome (*Bromus hordeaceus*), timothy (*Phleum pratense*), Yorkshire fog (*Holcus lanatus*), perennial rye grass (*Lolium perenne*), cocksfoot (*Dactylis glomerata*), rough meadow grass (*Poa trivialis*), great willowherb (*Epilobium hirsutum*), marsh woundwort (*Stachys palustris*), nettle (*Urtica dioica*), creeping thistle (*Cirsium arvense*), teasel (*Dipsacus fullonum*), southern marsh orchid (*Dactylorhiza praetermissa*), meadowsweet (*Filipendula ulmaria*), bristly oxtongue (*Helminthotheca echinoides*), hogweed (*Heracleum sphondylium*), broadleaved dock (*Rumex*

obtusifolius) and ragwort (*Jacobaea vulgaris*). Bramble (*Rubus* sp.) is frequent within this habitat.



3.2.3.2. Secondary codes: 10 scattered scrub, 104 other grazed. – **ONG4.**

Around the northern perimeter of the southern field, is a grass margin which sits between the woodland and arable field. It is relatively species poor, with its grasses finely grazed by rabbits. Species include fescue (*Festuca* sp.), false oat grass (*Arrhenatherum elatius*), creeping bent (*Agrostis stolonifera*), Yorkshire fog (*Holcus lanatus*), creeping thistle (*Cirsium arvense*), willowherbs (*Epilobium* spp.), selfheal (*Prunella vulgaris*), toad rush (*Juncus bufonius*), ragwort (*Jacobaea vulgaris*), smooth sow thistle (*Sonchus oleraceus*), white clover (*Trifolium repens*), black medick (*Medicago lupulina*) and a solitary southern marsh orchid (*Dactylorhiza praetermissa*). Bramble (*Rubus* sp.) is becoming dominant within this habitat.



3.2.3.3. Secondary codes: 10 scattered scrub– **ONG6.**

The grassland along the eastern boundary of phase two and just south of W4 comprises a ranker and less diverse sward than the above. It comprises false oat grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), timothy (*Phleum pratense*), creeping bent (*Agrostis stolonifera*), rough meadow grass (*Poa trivialis*), soft brome (*Bromus hordeaceus*), Italian rye grass (*Lolium multiflorum*), bristly oxtongue (*Helminthotheca echioides*), great willowherb (*Epilobium* sp.) and hogweed (*Heracleum sphondylium*).



3.2.4. w1f7 – Other Lowland Mixed Deciduous Woodland.

3.2.4.1. Secondary codes: 12 scattered bracken, 60 long continuity habitat. – **W1.**

3.2.4.1.1. To the northwest of the survey area, there is a section of mature woodland which is shown on historic maps from at least the mid-1800s, although smaller than it is now. Its age is evident due to the size of the trees and ground flora.

3.2.4.1.2. Species generally comprise sycamore (*Acer pseudoplatanus*), which is the dominant species, field maple (*Acer campestre*), oak (*Quercus robur*), lime (*Tilia x europaea*) and crack willow (*Salix fragilis*), with smaller species such as elder (*Sambucus nigra*), hawthorn (*Crataegus monogyna*) and hazel (*Corylus avellana*) also present. The understory comprises bluebells (*Hyacinthoides non-scripta*), bracken (*Pteridium aquilinum*), nettle (*Urtica dioica*), willowherbs (*Epilobium* spp.) and foxglove (*Digitalis purpurea*). Bittersweet (*Solanum dulcamara*) and creeping Jenny (*Lysimachia nummularia*) are present with the damper flushes.

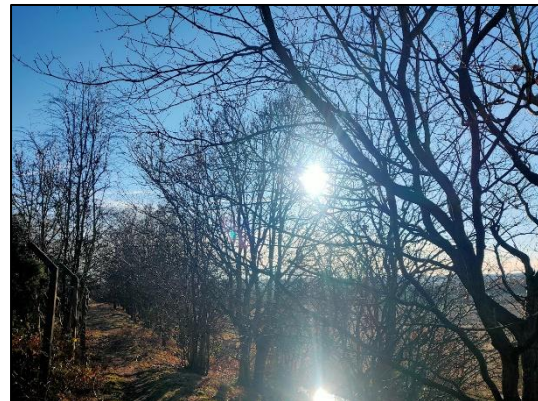


3.2.4.1.3. Just outside phase one but partially within phase 2, the ground flattens and becomes wetter. Here, crack willow (*Salix fragilis*) is the dominant species, accompanied by silver birch (*Betula pendula*) and alder (*Alnus glutinosa*).

3.2.4.1.4. This woodland is covered by a grouped Tree Preservation Order (TPO).

3.2.4.2. Secondary codes: 10 scattered scrub, 528 walking or cycling route. – **W2**.

Extending southwards from W1 described above, is further woodland that is evidently younger. Oak (*Quercus robur*) is the dominant species here. Tree density here is lower and the trees are largely immature or semi-mature. A footpath runs through this section of woodland.



3.2.4.3. Secondary codes: 10 scattered scrub, 12 scattered bracken. 60 long continuity habitat. – **W4**.

3.2.4.3.1. Within the centre of the site, extending from the eastern boundary inwards is another large parcel of woodland. This again shows on historic maps and has therefore been present for some time. This woodland has a dense scrubby understory within its southern section, but is sparser on the east towards Upperwood road, likely reflecting the difference in public accessibility. The woodland comprises oak (*Quercus robur*), sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*), lime (*Tilia* sp.), hawthorn (*Crataegus monogyna*) and small amounts of yew (*Taxus baccata*). The understory comprises bramble (*Rubus* sp.), holly (*Ilex aquifolium*), elder (*Sambucus nigra*), wild cherry (*Prunus avium*) saplings, bracken (*Pteridium aquilinum*), wood millet (*Milium effusum*), ivy (*Hedera helix*), cleavers (*Galium aparine*) and daffodils (*Narcissus* sp.). One of the hawthorns within this woodland is classed as a veteran tree.



3.2.4.3.2. Selected trees within this woodland are covered by TPOs.

3.2.4.4. Secondary codes: 34 Ecologically valuable line of trees.

The only line of trees (**LOT3**) within phase two is a row of mature willows (*Salix* spp.) and oaks (*Quercus robur*) which run along the western boundary of the southern field. Some of the oaks are of considerable size.



3.2.5. h3h - Mixed Scrub.

3.2.5.1. Secondary codes: None - **S2.**

A smaller parcel of dense scrub is present between the southern arable field and the woodlands. Species within this include gorse (*Ulex europeaus*), broom (*Cytisus scoparius*), bramble (*Rubus* sp.), oak (*Quercus robur*), turkey oak (*Quercus cerris*) and elder (*Sambucus nigra*).



3.2.5.2. Secondary codes: 532 scattered grass – **S3.**

Up the western side of phase two, beneath the line of trees described above and extending eastwards is dense scrub with ruderals and grasses. Species include predominantly bramble (*Rubus* sp.) and willows (*Salix* spp.). Other species include a mixture of this described in ONG3.

3.2.6. h3d – Bramble Scrub.

Secondary codes: None – S4.

To the northeast of phase two, merging into phase 1, is a fringe of bramble scrub.



3.2.7. r2 – Other Rivers and Streams.

Secondary codes: None.

3.2.7.1. There are two watercourses that lie either on the site or close enough that the red line boundary extends within 10m of the top of the banks of the watercourse.

3.2.7.2. The first of these extends along part of the eastern boundary of phase one, and the southeastern boundary of phase two. Where it extends along the eastern boundary of phase one, it is culverted underground. It emerges above ground at the easternmost point of phase two, where it then flows along the site boundary southwards. Part way along the boundary it flows outside of the site boundary and along the edge of the adjacent garden habitats, until it flows into another watercourse towards the southern end of phase two.

3.2.7.3. Large sections of this watercourse comprise an artificial channel, and it is very much overgrown with the hedgerow boundary vegetation, scrub and grassland habitat.

3.2.7.4. The nature of this watercourse is shown in the photographs below. The first photograph shows the overgrown nature of the watercourse.



3.2.7.5. The second watercourse flows from the pond in W1, through the woodland and then along a tree line (LOT3) along the western boundary of phase two. It follows the boundary of the phase two area and proceeds to flow along the southern boundary of phase two. It then turns to flow alongside the area that is within phase one of the development, where the new drainage basin will be created.

3.2.7.6. The nature of this watercourse changes throughout. Through W1, there is a poorly defined channel (Photo 1) and the water is very shallow. Where it flows along the tree line boundary there is a distinct open channel (Photo 2), but then where it flows between the two arable fields along the southern boundary of the phase two area, the channel narrows and the banks are very much undercut (Photo 3).



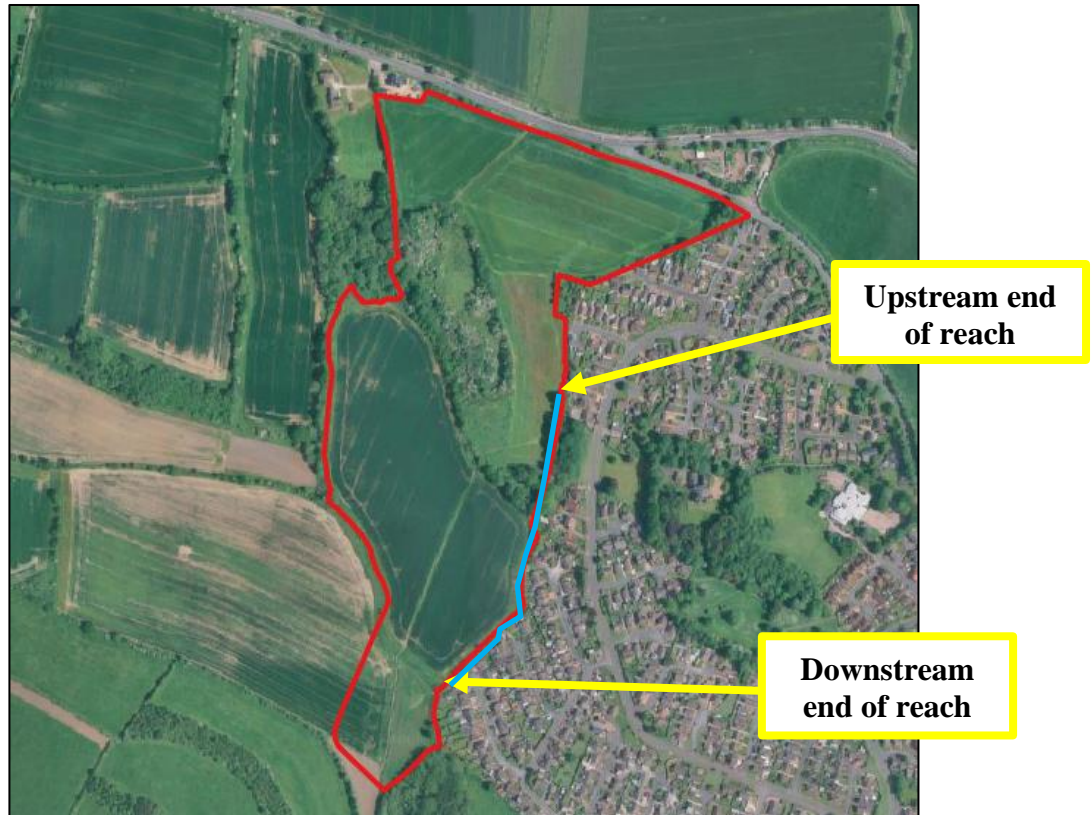


3.3. River Condition Assessment.

3.3.1. MoRPh baseline assessments were carried out of the two watercourses by an accredited surveyor. Both watercourses are unnamed, but for the purpose of the condition assessment are referred to as the 'Italian Estate Watercourse' and 'Brookfield Watercourse', named after the names of houses / housing estates they flow near.

3.3.2. Italian Estate Watercourse.

3.3.2.1. The length of the river reach in relation to the red line boundary of the site is shown on the map below. The upstream end of the reach is defined where the watercourse appears to start underground, shown on both recent and historic maps. The downstream end is defined by where it flows into the Brookfield Watercourse.



3.3.2.2. One MoRPh5 survey was carried out at the location shown in the map below. The length of this watercourse within or adjacent to the site is measured at approximately 410m, however approximately 170m of this length is culverted and only 240m is open watercourse. The MoRPh5 survey comprised five consecutive ten metre sections (50m total), which covered just short of 21% of the length of the sub reach adjacent to the red line boundary.



3.3.2.3. The photographs below show the nature of the Italian Estate Watercourse throughout area included in the MoRPh5.

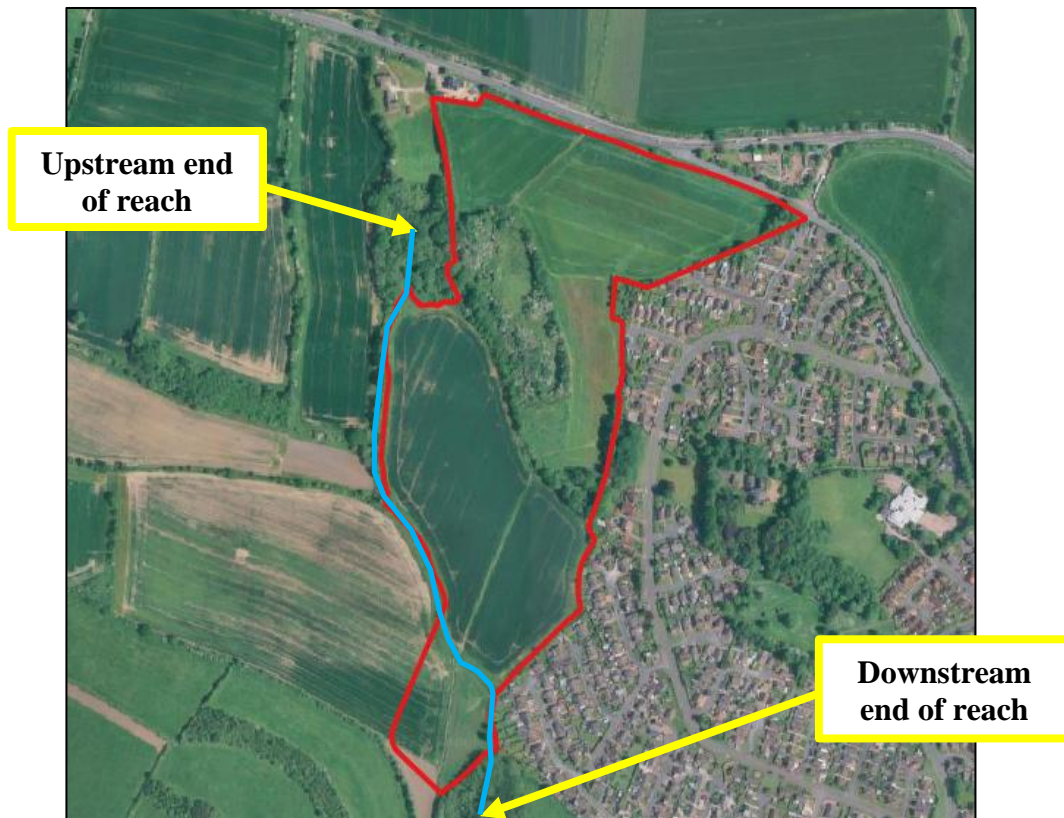


3.3.2.4. The MoRPh field survey information was put into the Cartographer online application, along with the necessary desktop exercise to establish the river type. This had an outcome of 'moderate' condition.

3.3.3. *Brookfield Watercourse.*

3.3.3.1. The length of the river reach in relation to the red line boundary of the site is shown on the map below. The upstream end of the reach is defined by the source of the

watercourse, which is a pond in the woodland on the site. The downstream end is defined by where it appears to flow underground for the remainder of its length.



3.3.3.2. Four MoRPh5 surveys were carried out at the locations shown in the map below. It was deemed necessary to undertake four surveys as the nature of the watercourse changes as it flows along the survey area. The first section is where it flows through the woodland habitat and does not have a well-defined channel, the second where it flows through a defined open channel along a tree line between two arable fields, the third is where it flows between two arable fields where the channel is more enclosed with undercut banks, and the fourth is where it opens up again and flows along the edge of a housing estate.

3.3.3.3. The length of Brookfield Watercourse adjacent to or within the red line boundary is measured at approximately 580m. The MoRPh5 surveys comprised five consecutive ten metre sections, in four locations, therefore covered a total of 200m, which covered just over 34% of the length of the sub reach adjacent to the red line boundary.

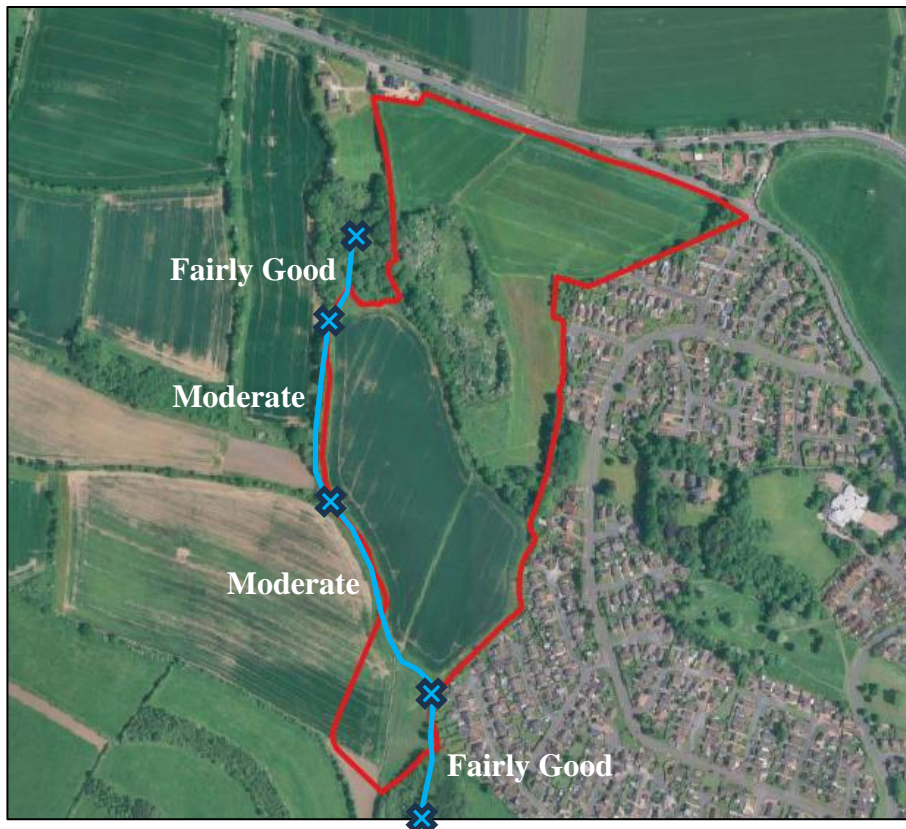


3.3.3.4. The photographs below show the nature of the Italian Estate Watercourse throughout the areas included in the MoRPh5's.





3.3.3.5. The MoRPh field survey information was put into the Cartographer online application, along with the necessary desktop exercises to establish the river type. This had an outcome of ‘moderate’ condition for where the watercourse flows through the central areas, along the treeline and between the two arable fields, and a ‘fairly good’ condition for where it flows through the woodland and along the housing estate. This is demonstrated in the map below.



4. BIODIVERSITY NET GAIN ASSESSMENT.

4.1. Baseline Biodiversity Value.

4.1.1. The below tables demonstrate the baseline units of phase two using the Statutory Metric. A copy of the metric will be provided alongside this report.

4.1.2. A Rivers Condition Assessment (RCA) was carried out by an accredited ecologist, to determine the condition of the watercourses on the site and any sections of watercourse within 10m of the red line boundary. However, as part of the watercourse that flows along the southern boundary of phase two, has already been included the phase one part of the development, that length of watercourse has been omitted from this BNG assessment.

4.1.3. Area habitats:

Habitat Type	Area (hectares)	Distinctiveness	Condition	Total habitat units
Cereal crops	6.325	Low	N/A	14.55
Other neutral grassland	0.1772	Medium	Moderate	1.63
Other neutral grassland	0.0749	Medium	Moderate	0.69
Other neutral grassland	0.1057	Medium	Moderate	0.97
Bramble scrub	0.0034	Medium	N/A	0.02
Mixed scrub	0.0456	Medium	Moderate	0.42
Mixed scrub	0.009	Medium	Moderate	0.08
Mixed scrub	0.1981	Medium	Moderate	1.82
Lowland mixed deciduous woodland	0.08	High	Good	1.66
Lowland mixed deciduous woodland	0.0504	High	Moderate	0.7
Lowland mixed deciduous woodland	0.0468	High	Moderate	0.65

Lowland mixed deciduous woodland	0.0273	High	Moderate	0.38
Total	7.14			23.55

4.1.4. *Hedgerow habitats:*

Hedgerow Type	Length (km)	Distinctiveness	Condition	Biodiversity units
Ecologically valuable line of trees associated with bank or ditch	0.179	Medium	Moderate	1.65
Total	0.179			1.65

3.1.5. *Watercourse habitats:*

Watercourse Type	Length (km)	Distinctiveness	Condition	Biodiversity units
Other rivers and streams	0.237	High	Moderate	1.31
Other rivers and streams	0.28	High	Fairly Good	4.83
Culvert	0.003	Low	Poor	0.00
Other rivers and streams	0.143	High	Moderate	1.97
Ditches	0.061	Medium	Poor	0.28
Total	0.72			8.40

4.2. Post Development Habitat Creation.

4.2.1. Based on current proposals, which are still indicative at this stage, phase two of the development could possibly achieve a net gain on-site dependant on whether residential units could be reduced or removed. However, at the moment, the site does not meet the necessary number of units to achieve a net gain and therefore, similarly to phase 1, will require off-site units to make up the shortfall.

4.2.2. A number of significant habitats will be retained including almost all woodland in phase two, almost all of the western scrub boundary and line of trees and a significant amount of the perimeter grassland.

4.2.3. A further two significant areas of grassland are available to the north and south of phase two to allow for additional planting of other neutral grassland to merge with the existing grassland.

4.2.4. Two significant areas of public open space have been included within the plan which allow for a small number of units to be gained through the creation of amenity grassland.

4.2.5. Approximately one-hundred and twenty-one trees are to be planted across phase two of the development which will not be in public ownership and therefore allow for the achievement of a small amount of units.

4.2.6. The remainder of the site is mostly to comprise a suburban mosaic of housing, roads, gardens, verges and other typical features of a residential estate. The development is too large to allow for the mapping of each individual feature so a 70:30 split between developed land; sealed surface and vegetated gardens have been used as per the Statutory Metric User Guide.

4.2.7. If proposals are not altered, the remainder of the biodiversity units will require offsetting, and providing that the land is close to the current site, and of an arable baseline as it is expected to be, a total of 1.5 hectares are required. This could be reduced further if a commitment can be made to achieve 'good' condition other neutral grassland.

4.2.8. The tables below show what will be achieved on site.

4.2.8.1. Area habitats.

Habitat Type	Area (hectares)	Distinctiveness	Condition	Total habitat units
<i>Retained Habitat</i>				
Other neutral grassland	0.1702	Medium	Moderate	1.57
Other neutral grassland	0.0351	Medium	Moderate	0.32
Other neutral grassland	0.1057	Medium	Moderate	0.97
Bramble scrub	0.0034	Medium	N/A	0.02
Mixed scrub	0.0454	Medium	Moderate	0.42
Mixed scrub	0.009	Medium	Moderate	0.08
Mixed scrub	0.1896	Medium	Moderate	1.74
Lowland mixed deciduous woodland	0.08	High	Good	1.66
Lowland mixed deciduous woodland	0.0504	High	Moderate	0.7
Lowland mixed deciduous woodland	0.0407	High	Moderate	0.65
Lowland mixed deciduous woodland	0.0273	High	Moderate	0.38
<i>Created Habitat</i>				
Developed land; sealed surface	3.7043	V.Low	N/A	0
Vegetated garden	1.5876	Low	N/A	3.52

Modified grassland	0.2774	Low	Poor	0.62
Modified grassland	0.1675	Low	Poor	0.37
Modified grassland	0.2058	Low	Poor	0.46
Other neutral grassland	0.2572	Medium	Moderate	1.98
Other neutral grassland	0.1822	Medium	Moderate	1.4
Other neutral grassland	0.0041	Medium	Moderate	0.03
Mixed scrub	0.0005	Medium	Moderate	0.04
Urban Tree	0.4927	Medium	Moderate	1.73
Total (exc. Trees)	7.14			18.56

4.2.8.2. Hedgerow habitats.

Hedgerow Type	Length (km)	Distinctiveness	Condition	Biodiversity units
Ecologically valuable line of trees associated with bank or ditch	0.179	Medium	Moderate	1.65
Total	0.179			1.65

4.2.8.3. Watercourse habitats.

There will be no change to the watercourse units on phase two, as the encroachment of the new development will not increase any more than the current encroachment on the site. This is demonstrated in the table below.

Watercourse Type	Length (km)	Distinctiveness	Condition	Biodiversity units
<i>Retained Habitat</i>				
Other rivers and streams	0.237	High	Moderate	1.31
Other rivers and streams	0.28	High	Fairly Good	4.83
Culvert	0.003	Low	Poor	0.00
Other rivers and streams	0.143	High	Moderate	1.97
Ditches	0.061	Medium	Poor	0.28
Total	0.72			8.40

4.2.9. Based on the above, phase two of the development will result in a net loss of 4.99 habitat biodiversity units, which is equivalent to a 21.18% loss and no net change in hedgerow or watercourse biodiversity units. Therefore, unless amendments to the proposal can be made, off-site habitat creation will be required to make up this loss.

4.2.10. An example of how this could be achieved is shown in the table below.

4.2.10.1. *Area habitats off site (baseline):*

Habitat Type	Extent (Ha)	Distinctiveness	Condition	Biodiversity units
Cereal crops	1.5	Low	N/A	3.45
Total	1.5			3.45

4.2.10.2. *Area habitats off site (post development):*

Habitat Type	Extent (Ha)	Distinctiveness	Condition	Biodiversity units
<i>Created Habitats</i>				
Other neutral grassland	1	Medium	Moderate	7.7
Mixed Scrub	0.4	Medium	Moderate	3.08

Lowland mixed deciduous woodland*	0.1	High	Moderate	0.15
Total	1.5			10.92

*This would be too small of a parcel to create as a standalone habitat, but as it will be combined with what is required for phase one, it will form part of a larger parcel.

4.2.10.3. Hedgerow habitats off site (post development):

Hedgerow Type	Length (km)	Distinctiveness	Condition	Biodiversity units
Species-rich native hedgerow with trees	0.05	High	Medium	0.48
Total	0.05			0.48

4.2.11. If the above is achieved, the development will result in a net gain of 6.07 habitat biodiversity units, which is equivalent to a 10.55% gain and a net gain of 0.48 hedgerow biodiversity units, equivalent to a 29.34% gain.

4.2.12. There are a number of options for creating watercourse units to achieve the 10% net gain. The following options can be explored to try and achieve this:

- The creation of new ditches on the site.
- Creation of additional water channels.
- Enhancement in the condition of the sections of watercourse that are currently in ‘moderate’ condition.
- Removal of riparian encroachment along the watercourse that flows along the southeastern boundary of phase two.

4.3. Biodiversity Net Gain Results.

4.3.1. Based on the on-site change only, phase one of the development, including the basin area, will result in the below final results.

FINAL RESULTS		
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	-4.99
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	-21.18%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

4.3.2. However, with the above off-site proposals in place and carefully managed, the scheme will achieve above the 10% net gain which is required to support the application. However, this will require significant additional land and significant to ensure that both on-site and off-site habitat conditions are achieved. If this is done, the final results will be as shown below. It is yet to be agreed how the 10% uplift in watercourse units will be achieved.

FINAL RESULTS		
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	2.48
	<i>Hedgerow units</i>	0.48
	<i>Watercourse units</i>	0.00
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	10.55%
	<i>Hedgerow units</i>	29.34%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

4.3.3. To ensure the above is achieved, a Habitat Management and Monitoring Plan (HMMP) will be required which details how the proposed habitats will be both implemented and managed for a minimum of a thirty-year period.

4.3.4. Whilst an off-site gain should be achievable, the amount of land needed may differ from the above dependant on mitigation that is recommended upon completing of protected species surveys.

Prepared by:	
Mitchel Greenhalgh BSc ACIEEM.	Date: 31 st March 2025

Checked by:	
Ruth Georgiou. BSc, MCIEEM.	Date: 3 rd April 2025

5. REFERENCES.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

Natural England (2014) Protected species and development: advice for local planning authorities. (updated 2021) Available at: <https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications> (Accessed: 05/03/2024).

UKHab Ltd (2023) UK Habitat classification Version 2.0 Available at <https://www.ukhab.org>.

Department for Environment, Food & Rural Affairs (2024) Biodiversity Net Gain. Available at <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> (Accessed: 15/04/2024)

Department for Environment, Food & Rural Affairs (2024) Statutory Net Biodiversity Metric User Guide. Available at <https://www.gov.uk/government/collections/biodiversity-net-gain> (Accessed: 15/04/2024)

Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework (NPPF). Available at <https://www.gov.uk/government/publications/national-planning-policy-framework--2> (Accessed: 15/04/2024)

Appendix I. ANNOTATED MAP OF PHASE TWO – BASELINE.



Site: Doncaster Road, Darfield, Phase Two

Date: 31.03.2025

Reference: 240123

Produced by: Mitch Greenhalgh



Appendix II. ANNOTATED MAP OF PHASE TWO – POST DEVELOPMENT.



Site: Doncaster Road, Darfield, Phase Two

Date: 31.03.2025

Reference: 240123

Produced by: Mitch Greenhalgh



Appendix III. PROPOSED DEVELOPMENT PLAN.

