

Habitat Management and Monitoring Plan

Site Name:	Waters Mill, Penistone
Date:	04/06/2026
Version:	1.0



Author: RDF Ecology

Client: Mulgrave Developments Ltd



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Version Control

The version control is used for updates to the content. Record the initial version and further version control details in this table each time the management plan is altered throughout the management and monitoring period.

Version	Issue Status	Prepared by / Date	Approved by / Date
1.0	Issued	03/06/2026	04/06/2026

Document Details

Authorship Details
<p>Prepared by RDF Ecology</p> <p>This report was prepared by RDF Ecology solely for use by Mulgrave Developments Ltd and their agents. This report is not addressed to and may not be relied upon by any other party other than Mulgrave Developments Ltd and their agents for any purpose without the prior written permission of RDF Ecology. RDF Ecology, its partners, employees, associates and affiliated companies accept no responsibility or liability for reliance upon or use of this report other than by Mulgrave Developments Ltd and their agents for the purposes for which it was originally commissioned and prepared.</p> <p>This report does not constitute legal advice. No warranty, express or implied, is made as to the advice in this report or any other service provided by us.</p> <p>Opinions and information provided in the report are prepared using all reasonable skill, care and due diligence in compliance with the CIEEM and RSB Codes of Professional Conduct and BS42020.</p> <p>In producing this report, RDF Ecology has relied upon information provided by others. The completeness or accuracy of this information is not guaranteed by RDF Ecology.</p>

1. Project Background

Summarise the key aspects of your management plan in this section. Table PB-B01 can be extended to suit the specific needs of individual projects.

Site Overview PB-B01	
Project type	Residential Development
Development Name and Address	Land off Watermill Gardens, Penistone, Sheffield
BNG Project Name and Address	Land off Watermill Gardens, Penistone, Sheffield
Author Organisation	RDF Ecology
Landowner	Mulgrave Developments Limited – On site Rebecca Jane Scott – Off-site BNG Delivery
Land Manager	Mulgrave Developments Limited – On-site Rebecca Jane Scott – Off-site BNG Delivery
Responsible person/organisation for creating or enhancing the habitat	Mulgrave Developments Limited
Period covered by this management plan	Start/end point of 30+ year period and 5-year update (including phasing if applicable)
Planning authority	Barnsley Metropolitan Borough Council
Planning reference (if applicable)	2023/0898
BNG register reference (if applicable)	N/A
Central OS grid reference	Development Site SE24410386 Off-site BNG Delivery SE24420418
Metric revision/title	Statutory metric Version 1.0.2 12 February 2024 Waters Mill REVISED Statutory BNG Metric 261124
Are any Irreplaceable Habitats present onsite	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Summary of Management Plan

Habitats to be Retained, Created and Enhanced PB-B02

The development site extends to approximately 0.74ha and comprises modified grassland (0.58ha) ruderal/ephemeral (0.112ha) and bare ground (0.05ha). In the past the site has been used for sheep grazing and hay/silage cropping. All baseline habitats within the permitted site will be lost and replaced with residential development (vegetated gardens and developed land) and areas of Public Open Space (modified grassland) and two urban trees (outside of residential gardens).

The off-site compensation area extends to approximately 0.28ha and comprises hawthorn scrub (0.23ha), other neutral grassland (0.014ha) and ruderal/ephemeral vegetation (0.035ha). The area of other neutral grassland will be retained, the areas of hawthorn dominated scrub will be enhanced through planting of a range of locally occurring native scrub species and the ruderal/ephemeral vegetation will be converted to other neutral grassland using an appropriate wildflower grass seed mix.

Timescales for Actions PB-B03

Planting of scrub species and seeding within the off-site BNG area will occur in the first suitable season following commencement of the development likely to be the autumn/winter of 2026/27

On-site habitat creation works including hedgerow planting and wildflower grassland seeding will be completed in the first suitable season following the end of the construction phase of the development which will likely be the autumn/winter of 2028/29.

HMMP review in 2030 and updated where necessary.

Monitoring Requirements PB-B04

Monitoring of habitat enhancement and creation will occur in years 1, 2, 3, 5, 10, 15, 20, 25 and 30 post completion. A monitoring report will be prepared in each monitoring year and this will record the condition of the enhanced and created habitats against their targets and will recommend remedial or amended management where appropriate.

Required Consents and Licences PB-B05

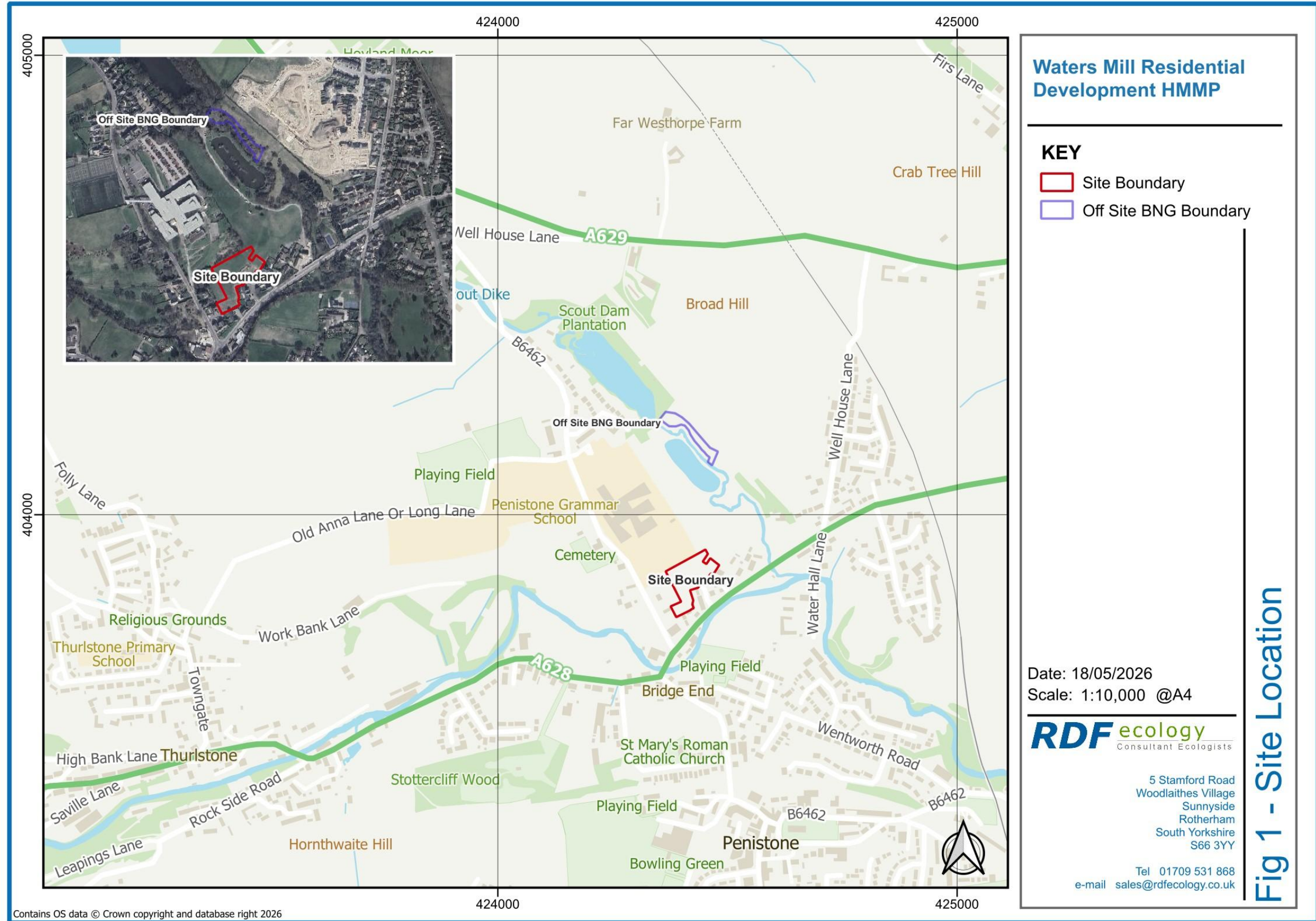
Planning permission granted conditionally on 21 January 2026 by Barnsley Metropolitan Borough Council

Funding PB-B06

Funding will be through Mulgrave Developments Limited

Legal Agreement PB-B07

Delivery of the HMMP will be secured through appropriate Section 106 agreement with Barnsley Metropolitan Borough Council



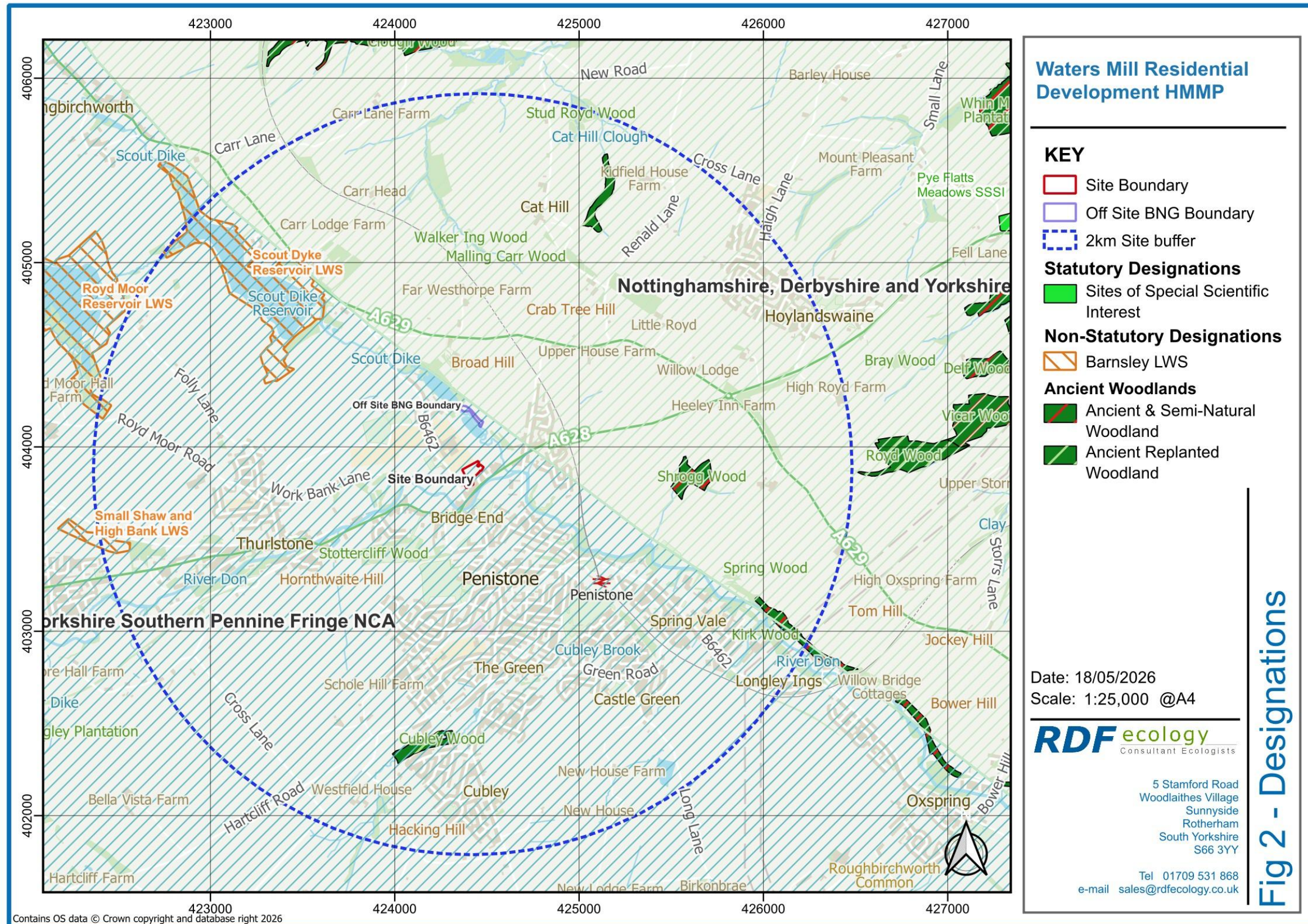


Fig 2 - Designations

Phasing strategy

Will the proposed work measures be delivered in phases? PB-B08		Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	
<p>This is a single HMMP for the residential development site and the off-site BNG compensation area</p> <p>Planting of scrub species and seeding within the off-site BNG area will occur in the first suitable season following commencement of the development likely to be the autumn/winter of 2026/27</p> <p>On-site habitat creation works including hedgerow planting and wildflower grassland seeding will be completed in the first suitable season following the end of the construction phase of the development which will likely be the autumn/winter of 2028/29</p>			

Roles and Responsibilities

Provide details of the responsible persons and organisation(s) for delivering this management plan.

Ecologist or Other Professional Responsible for HMMP PB-B09				
Name or Initials		Robert Frith		
Organisation		RDF Ecology		
Responsibility	Start Date:	01/02/2026	End Date:	31/12/2031
Responsible for the preparation of the HMMP, supervision of habitat creation works and subsequent habitat monitoring and HMMP review.				
Statement of Competency				
<p>Rob is a professional ecologist with over 30 years of experience in ecological consultancy and habitat management and is currently the principal partner in RDF Ecology.</p> <p>Since his graduation from the University of Hull with a Joint Honours Degree in Botany and Zoology, Rob has been involved in countryside and environmental work with Local Authorities, voluntary and charity organisations, public and private sector companies and Country Conservation Agencies. Rob holds full membership of the Royal Society of Biology.</p> <p>During his career Rob has been responsible for and prepared management plans for a wide range of important sites including, Country Parks, Local Nature Reserves and Sites of Special Scientific Interest.</p>				

Landowner or Land Manager PB-B10				
Name or Initials		Mulgrave Developments Limited – On site Rebecca Jane Scott – Off-site BNG Delivery		
Organisation		Mulgrave Developments Limited – On site Rebecca Jane Scott – Off-site BNG Delivery		
Responsibility	Start Date:	At commencement of works	End Date:	30 years following completion of works
Responsible for the overseeing of the delivery of the HMMP				
Statement of Competency				
Mulgrave Developments are a responsible developer and have delivered a significant number of developments and landscape Schemes throughout Yorkshire.				

Management Organisation(s) Responsible for Implementing the HMMP PB-B11				
Name or Initials		Mulgrave Developments Limited or appointed management company		
Organisation		Mulgrave Developments Limited or their appointed contractor		
Responsibility	Start Date:	At commencement of works	End Date:	30 years following completion of works
Responsible for undertaking any habitat creation and management measures prescribed in this HMMP				
Statement of Competency				
Any contractors appointed by Mulgrave Developments Limited will go through a process of due diligence to ensure that they have the correct expertise and experience to work on this project.				

LPA or Responsible Body for Reviewing HMMP PB-B12				
Name or Initials		N/A		
Organisation		Barnsley Metropolitan Brough Council		
Responsibility	Start Date:	At commencement of works	End Date:	30 years following completion of works
Responsible for the review of the HMMP and subsequent monitoring reports				

Land Use Summary

Overview of Baseline Site Use PB-B13

The site has historically been managed as modified grassland for sheep grazing and for a hay/silage crop.

Overview of Proposed Site Use PB-B14

The development comprises construction of 17 residential dwellings with associated parking, drainage and landscaping and this will result in the loss of all habitats within the development site boundary.

In order for the development to deliver a 10% or greater biodiversity gain two areas of public open space are to be seeded with an appropriate wildflower seed mix to create areas of modified grassland in moderate condition. In addition, habitats within an area of land 200m north east of the site boundary are to be enhanced by planting of a range of native scrub species to create mixed scrub in good condition and reseeding an area of ruderal vegetation to create other neutral grassland in moderate condition. Habitats will be managed and monitored for a 30 year period.

Site Context Photos PB-F03

Please include two overview photographs of the site in its current form here. Include additional photographs in an appendix if needed. Tick if additional photographs are provided in the Appendices

Reference: [Click or tap here to enter text.](#)



Photograph 1 – Development Site



Photograph 2 – Off-site BNG area viewed from distance (outlined in red)

Site Baseline, Environmental Information and Associated Impacts Checklist PB-T01

Baseline and Environmental Information	Prompts for when these may be relevant. This is not an exhaustive list. Use your professional judgement to determine which are required for your HMMP	Check box if included	Document Reference or Reason if not included
Statutory / Non-statutory Designated Sites	Will your proposals lead to direct or indirect effects on designated sites?	<input type="checkbox"/>	No statutorily designated sites within 2km of the site boundary and the closest Local Wildlife Site is more than 1km north west of the site boundary.
Protected and Notable Species	Does the presence or proximity of specific species on or near your site present any constraints or opportunities to project design or management?	<input checked="" type="checkbox"/>	Yes – an active badger sett is located within the off-site BNG area
Invasive Non-Native Species (INNS)	Are any INNS present onsite that could affect the proposals?	<input type="checkbox"/>	No
Biological Records Plan - Sites and Species	Does the presence of designated sites or specific species on or near the site present any constraints or opportunities to proposals?	<input checked="" type="checkbox"/>	Yes – an active badger sett is located within the off-site BNG area
Baseline Habitats Survey	Is this current and important HMMP information located in a separate document? If so, provide details on where it is located.	<input checked="" type="checkbox"/>	Yes, the descriptions are included in the Preliminary Ecological Appraisal report prepared by RDF Ecology in November 2024 and summaries included in this HMMP
Public Access	Has public access, or proposals to allow public access, influenced your management prescriptions? If so, how?	<input type="checkbox"/>	No Public Access
Climate	Are local climate conditions and, or, climate change likely to impact the target habitat retention, creation or enhancement?	<input type="checkbox"/>	No, target habitats are likely to be climate sensitive
Geology and Topography	Any geological or topographical constraints or opportunities?	<input type="checkbox"/>	No
Agricultural Land Status	Does the site support any land favourable for agricultural management? Could this affect the proposals?	<input type="checkbox"/>	No
Soils and Substrates	Do soils and substrates present any constraints or opportunities?	<input type="checkbox"/>	No
Contaminated Land	If there is any contaminated land, will this present any constraints?	<input type="checkbox"/>	No contaminated land present
Hydrology and Drainage	Will the site hydrology present any constraints or opportunities?	<input type="checkbox"/>	No
Flood Risk Zones	Is the site within a flood risk zone? Will that present any site management risks?	<input type="checkbox"/>	Small areas of both the development site and the off-site BNG area fall within flood risk zone 2 and approximately 25% of the off-site BNG site lies within flood risk zone 3. This does not pose any risk to the habitats being created with that part of the offsite BNG area being planted with species tolerant to occasional flooding including willow species (<i>Salix spp.</i>)
Landscape Character and Designations	Does the landscape character of the site present any constraints or opportunities?	<input type="checkbox"/>	No
Historic Land Use	Does the historic land use present any constraints or opportunities?	<input type="checkbox"/>	None recorded
Historic Environment and Earth Heritage	Are there any historic environment designations? What are the implications for your plan?	<input type="checkbox"/>	None recorded
Other – please specify	Any other details - for example underground services or overhead powerlines, which may impact habitat management.	<input type="checkbox"/>	N/A

Baseline and Environmental Information

Protected and Notable Species (BI-T02)

Provide a concise summary of the notable species records within the zone of influence of the project and any potential impacts from the project.

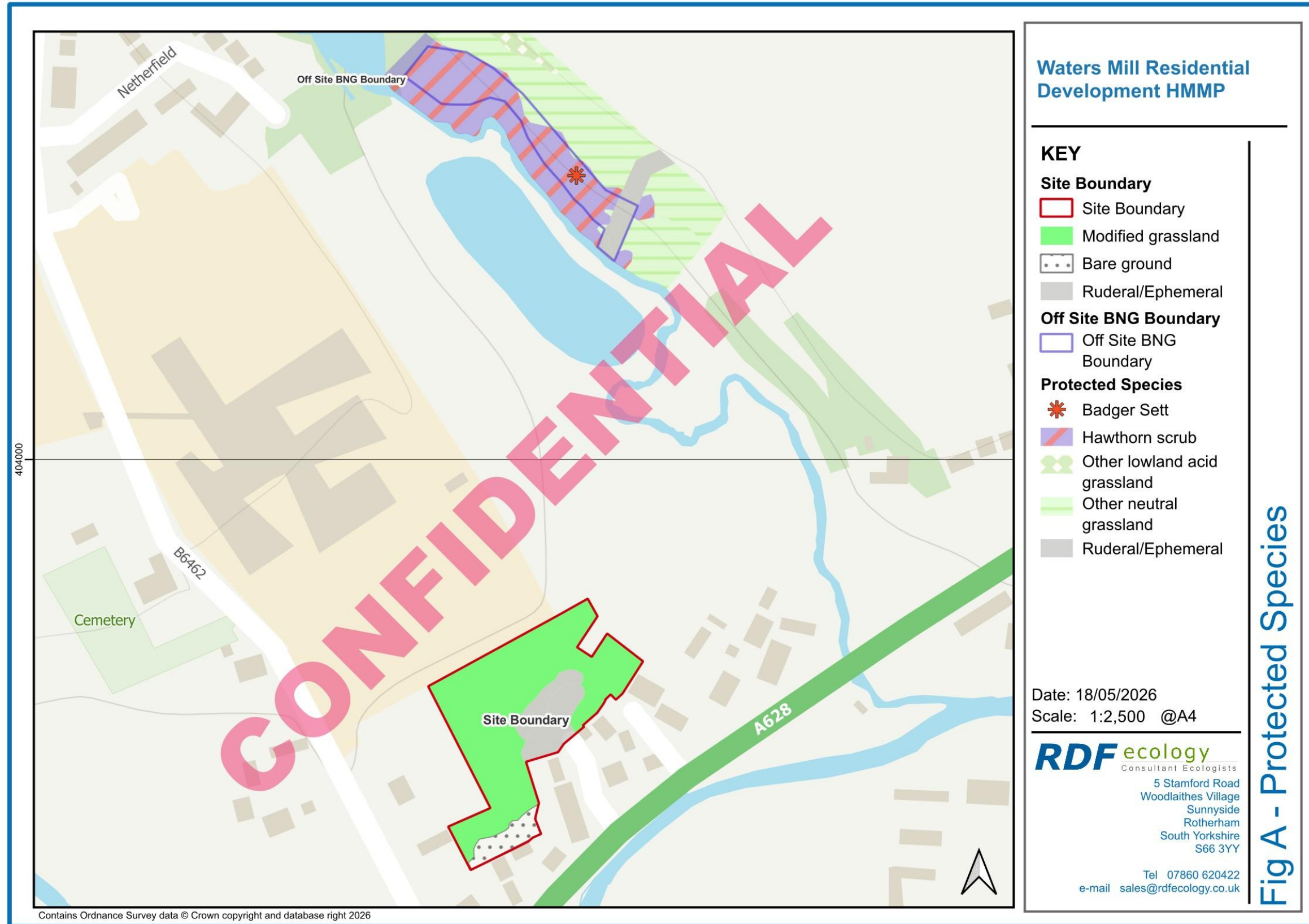
Species	Dates	Conservation Status	Distance of Closest Record	Potential Impact from Project
Badger (<i>Meles meles</i>)	07/12/2023	Legally Protected	Within the off-site compensation area	Neutral to slightly positive

Summary of Protected and Notable Species (BI-B03)

An active badger sett with several active entrance holes is located within the hawthorn scrub on a steep bank within the off-site biodiversity compensation area.

Constraints and Opportunities for Project (BI-B04)

The presence of the badger sett means that tree planting will be limited to areas a safe distance from the sett. This does not pose a significant constraint to the proposed enhancement works because the sett is located within a dense area of hawthorn scrub and would not be a suitable location for the planting of new additional species and there are more suitable locations a safe distance from the sett than can be utilised. Tree planting will only involve hand digging and planting of whips with tree guards and the increased density of the scrub will provide additional cover for the badgers.



Baseline Habitats Survey

Ecologist responsible for baseline surveys (BI-T03)	
Name or Initials	Robert Frith
Organisation	RDF Ecology
Survey Date	02/10/2024 and 19/05/2025
Statement of Competency	
Rob holds a Joint Degree in botany and zoology and is an experienced field botanist who has been undertaking botanical and habitat surveys including phase I, phase II.UK Habitat and National Vegetation Classification (NVC) surveys for more than 40 years across a wide range of habitats.	
Survey conditions and limitations	
The initial site assessment was undertaken in suitable weather in May 2023, within the optimal botanical survey season.	

Habitat Degradation

Are there any signs or evidence that the baseline habitats have been purposefully degraded since 30 th January 2020? (BI-B05)
None
If habitats have been purposefully degraded, provide details of how this has been accounted for (BI-B06)
N/A

Baseline Habitat Descriptions and Condition

Use the following tables to provide details of the relevant baseline habitats information. Provide a concise overview of the justification for the condition chosen for each parcel(s) in the appropriate column.

Habitats (BI-T04)

Parcel Refs	Habitat Type and Code	Irreplaceable	Priority	Description and Condition Justification	Condition	Area (ha)
1	Modified grassland (g4)	No	No	<p>Sheep grazed agricultural grassland used also for hay/silage crops</p> <p>Species poor grass dominated sward with perennial rye-grass (<i>Lolium perenne</i>), common bent (<i>Agrostis capillaris</i>), red fescue (<i>Festuca rubra</i>), cock's-foot (<i>Dactylis glomerata</i>), Yorkshire fog (<i>Holcus lanatus</i>) and crested dog's-tail (<i>Cynosurus cristatus</i>). False oat-grass (<i>Arrhenatherum elatius</i>) present around field margins.</p> <p>Broad-leaved species were present typically at low abundance and included yarrow (<i>Achillea millefolium</i>), common mouse-ear (<i>Cerastium fontanum</i>), smooth hawk's-beard (<i>Crepis capillaris</i>), cat's-ear (<i>Hypochaeris radicata</i>), ribwort plantain (<i>Plantago lanceolata</i>), creeping buttercup (<i>Ranunculus repens</i>), common sorrel (<i>Rumex acetosa</i>), broad-leaved dock (<i>Rumex obtusifolius</i>), dandelion (<i>Taraxacum officinale</i> agg.) and white clover (<i>Trifolium repens</i>).</p> <p>Condition assessment passes 4 out of 7 criteria but fails criterion A (essential for achieving moderate or good condition).</p>	Poor	0.58
2	Ruderal Vegetation (C3.1)	No	No	<p>Soil banks supporting coarse ruderal vegetation with false oat-grass, cock's-foot, common couch (<i>Elytrigia repens</i>) along with common nettle (<i>Urtica dioica</i>), mugwort (<i>Artemisia vulgaris</i>), cleavers (<i>Galium aparine</i>), broad-leaved dock, creeping thistle (<i>Cirsium arvense</i>) and occasional rosebay willowherb (<i>Chamerion angustifolium</i>).</p> <p>Condition assessment passes 1 out of 3 criteria.</p>	Poor	0.112
3	Bare ground	No	No	<p>Bare ground supporting sparse vegetation with yarrow, thale cress (<i>Arabidopsis thaliana</i>), daisy (<i>Bellis perennis</i>), wavy bitter-cress (<i>Cardamine flexuosa</i>), common mouse-ear, annual meadow-grass (<i>Poa annua</i>), procumbent pearlwort (<i>Sagina procumbens</i>), dandelion and white clover. Much less frequently encountered species included creeping bent (<i>Agrostis stolonifera</i>), sticky mouse-ear (<i>Cerastium glomeratum</i>), Canadian fleabane (<i>Conyza canadensis</i>), bird's-foot-trefoil (<i>Lotus corniculatus</i>) and thyme-leaved speedwell (<i>Veronica serpyllifolia</i>). In the south west corner of the site is another area of revegetating bare ground with some ruderal vegetation and species here included broad-leaved dock, creeping thistle, mugwort, false oat-grass, cock's-foot and Yorkshire fog along with some common mouse-ear, white clover, dandelion, common sorrel and wavy bittercress and a single cowslip (<i>Primula veris</i>).</p> <p>Condition assessment passes 1 out of 3 criteria</p>	Poor	0.05

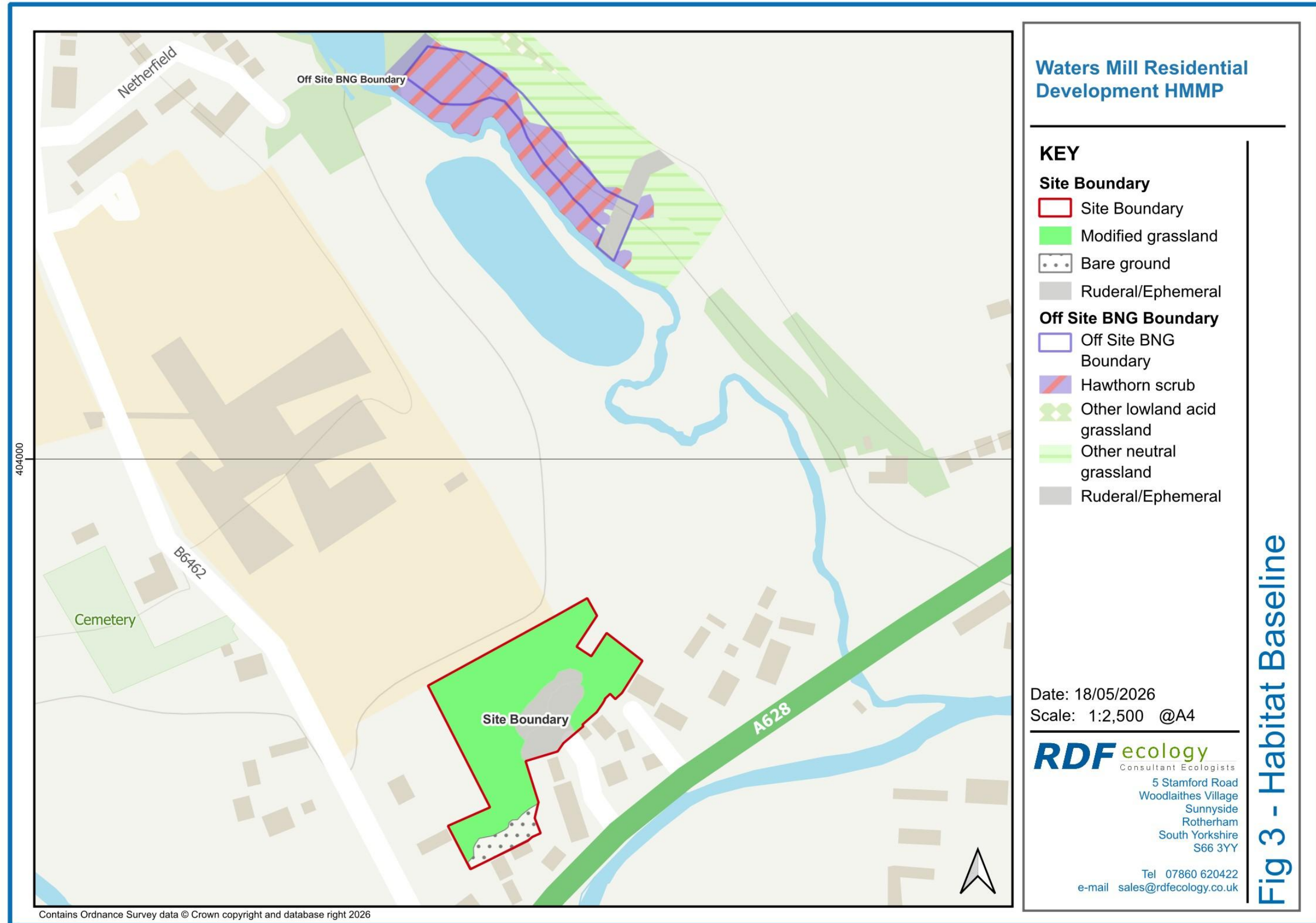
Priority and Irreplaceable Habitats

Summary of Priority and Irreplaceable Habitats (BI-B07)

N/A

Potential Constraints and Opportunities for Project (BI-B08)

N/A



Baseline Habitats Photos (BI-F04)

Provide a range of photographs representative of the baseline. Add additional pages for photos as required.



2. Planned Management Activities

Provide the site-wide aims and objectives. These should consider the Project Background information section outlined above as well as the outcomes of the Metric.

Management Plan Aims and Objectives PM-B01

The aim of this HMMP is to provide details for a biodiversity net gain using both on-site and off-site measure which compensates for loss of habitat within the development site and provides a net improvement in habitat value over existing baseline habitats and how these will be managed during the 30-year management plan period and includes the following:

On-site Proposals

- Creation of 0.0754ha of modified grassland in moderate condition
- Planting of 162m of native species rich hedgerow
- Planting of 2 new trees in moderate condition in areas outside of residential gardens

Off-Site Proposals:

- Enhancement of 0.23ha of mixed scrub from moderate to good condition
- Enhancement of 0.035ha of Ruderal/Ephemeral vegetation in poor condition to other neutral grassland in moderate condition

Principles Informed by Design Stage

The project's BNG target(s) should be set and documented early in the design process. Outline how background and baseline information influenced key design principles for the project from an early stage. This can provide useful context for the proposed retention, creation and enhancement measures.

Design Principles Informed by Baseline Information PM-B02

The BNG targets were developed to maximise the number of biodiversity units that the site can realistically deliver and then supplemented by appropriate off-site compensation as close to the development site as possible

The on-site grassland creation reflects the modified grassland character of the baseline and nearby grassland habitats but with moderate condition in contact with the poor condition of the baseline habitats and to increase their value with the planting of native hedgerows adjacent to the grasslands

The off-site compensation area is intended to enhance the condition of existing scrub habitats characteristic of the local area.

Habitat and Condition Targets PM-T01

This table presents a summary record of what you have agreed to deliver based on the biodiversity metric. These habitat condition targets form the basis of what the management plan is setting out to achieve. Include the relevant 'Area', 'Hedgerow', and 'Watercourse' types to be implemented and managed throughout the period of 30 years or more.

Baseline Habitat Type	Target Habitat Type	Parcel / Feature Refs	Baseline Condition	Targeted Condition	Years to Targeted Condition	Condition Assessment Targets	Comments
Modified Grassland	Modified Grassland	g4 – Site 1	Poor	Moderate	Standard time to target condition from the statutory biodiversity metric	Good condition targeted by achieving passes in criteria A, C, E, F and G	May be possible to achieve good condition if margins of grasslands left unmanaged
N/A	Urban Tree	Site 2	N/A	Moderate	Standard time to target condition from the statutory biodiversity metric	Good condition targeted by achieving passes in criteria A, B and F	
Hawthorn Scrub	Mixed Scrub	Off-site h3h	Moderate	Good	Standard time to target condition from the statutory biodiversity metric	Moderate condition targeted by achieving passes in criteria A, B, C, D and E	Mature specimens already present
N/A	Native hedgerow	H1	N/A	Moderate	Standard time to target condition from the statutory biodiversity metric	Moderate condition targeted by achieving passes in criteria A1, B1, B2, C1, D1 and E	

Habitat and Condition Targets Further Comments

Use this section to provide further details relevant to achieving the habitat and condition targets set out above. Also, include any additional objectives that are relevant to the proposals but outside of the scope of the statutory biodiversity metric calculations.

Habitat Retention

Provide a concise description of the habitats that are to be retained in their baseline condition. Habitats being retained may still require ongoing measures to maintain their baseline condition.

Measures to be Implemented to Protect Retained Habitats PM-03

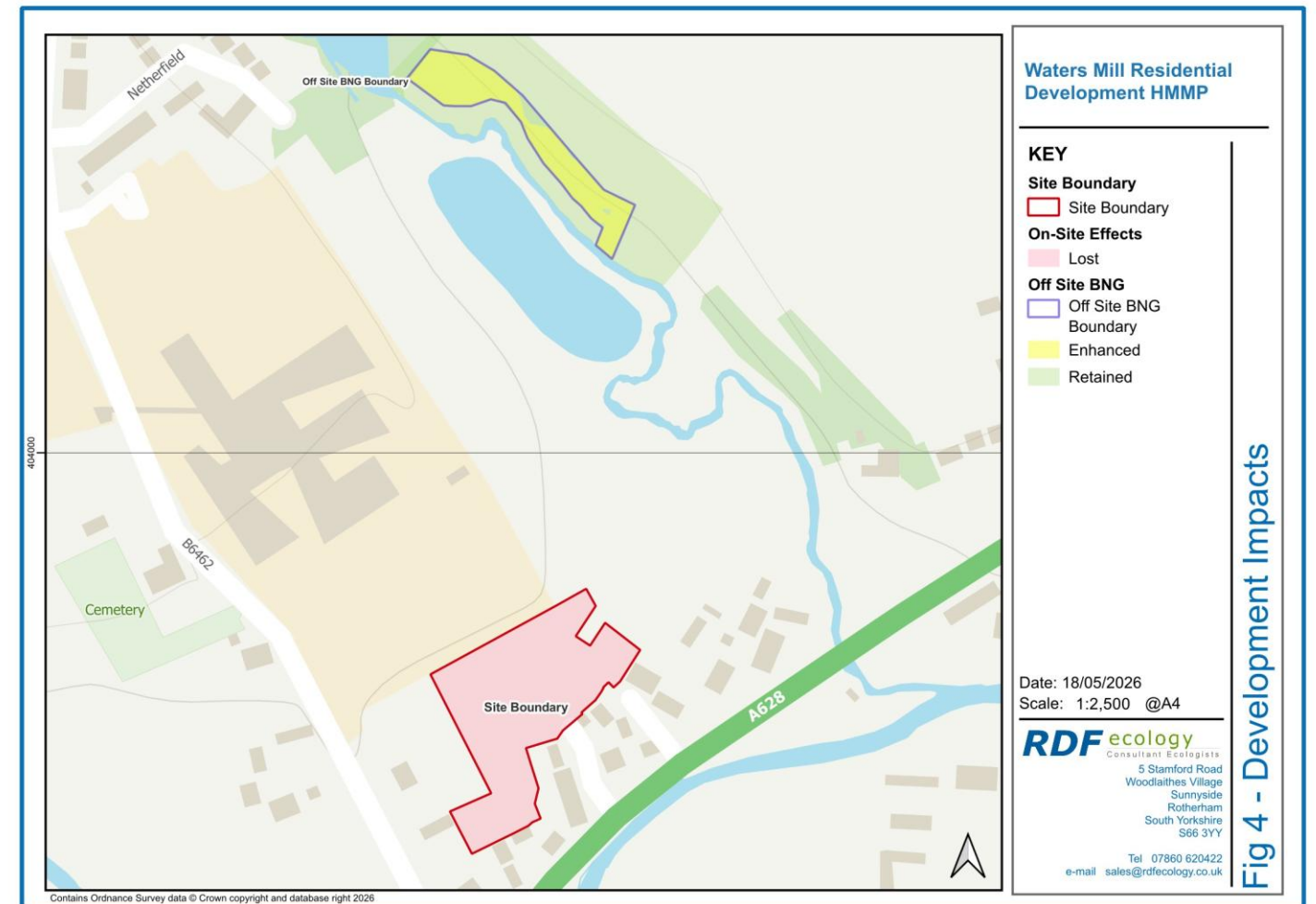
Retained and enhanced habitats are separate from the main development site and enclosed by dry stone wall and fences with no public access

Specification of Protective Measures to be Used PM-04

Existing dry stone walls and fencing to be maintained.

Habitat Retention Plan PM-F01

Provide a plan with the locations of habitats to be retained (including whether to be protected and, or, enhanced) and those to be created under this HMMP. Include parcel references if needed. Tick box if any additional plans are provided in the Appendices . Reference: [Click or tap here to enter text.](#)



Creation, Enhancement and Management Targets and Prescriptions

Grassland (Low Distinctiveness)

Creation, Enhancement and Management Summary (GL-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 5. Grassland Low

Target Habitat:		Modified Grassland (g4)				
Condition Assessment Criteria	Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach	
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² , please review the full UKHab description to assess whether the grassland should be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high or very high distinctiveness, please use the relevant condition sheet.	Yes	g4 – Site 1	During final landscaping spread low fertility soils on area allocated for modified grassland. Light harrowing/cultivation to create a fine seedbed. Sow appropriate wildflower seed mix in autumn(preferred) or spring	N/A	Grassland to be managed as public open space amenity grassland with regular cutting during the growing season, leaving a 2m wide strip around the margins of the habitat adjacent to hedgerows Strip to be cut in late summer (August) and arisings removed before being incorporated in regular mowing regime until the end of the growing season.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	g4 – Site 1		N/A	Grassland to be managed as public open space amenity grassland with regular cutting during the growing season, leaving a 2m wide strip around the margins of the habitat adjacent to hedgerows to provide varied sward height
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	g4 – Site 1	Any scrub encroachment from hedgerows by bramble to be monitored and controlled Regular cutting of grassland during the growing season will prevent growth of scrub species	N/A	Regular cutting of grassland during the growing season will prevent growth of scrub species

Target Habitat:		Modified Grassland (g4)				
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No	g4 – Site 1	N/A	N/A	Regular mowing during growing season considered a damaging operation.
E	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Yes	g4 – Site 1	Success of seeding to be monitored and addental overseed applied where necessary	N/A	Grassland managed as amenity grassland and regular cutting likely to lead to minimal bare ground
F	Cover of bracken <i>Pteridium aquilinum</i> less than 20%.	Yes	g4 – Site 1	Bracken not recorded from site	N/A	Check for presence of bracken during annual monitoring and prepare remedial measure if required.
G	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).	Yes	g4 – Site 1	N/A	N/A	Check for presence of invasive non-native species and species indicative of suboptimal condition during annual monitoring and prepare remedial measure if required.

Additional Management Prescriptions (GL-B01)

Please use this space to detail any additional management measures to be conducted along with the above measures. These may for example include (but are not limited to) measures specifically relating to the presence of protected species or may be additional measures that are in support of local nature recovery targets and, or, planning policy.

Grassland (Low Distinctiveness)

Creation, Enhancement and Management Detailed Methods (GL-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Parcels	Timing	Prescriptions
Ground preparation	g4 – Site 1	Preferred cultivation August–October with sowing of seed September–October or cultivation and seed sowing Mar–Apr	During final landscaping spread low fertility soils on area allocated for other neutral grassland. Light harrowing/cultivation to create a fine seedbed.
Seed sowing	g4 – Site 1	September/October preferred otherwise March/April	Sow a wildflower seed mix including ≥10 forb species, Such as Emorsgate EM2 Standard General Purpose Meadow Mixture Seed to be broadcast sown at a rate of 4g/m ² Two equal sowings are to be carried out at right angles to each other and diagonally to main axis, ensuring good seed to soil contact and then rolled to firm in and give good seed to soil contact. The area shall be watered as necessary during periods of dry weather
First year cutting	g4 – Site 1		Cut and remove first flush of annual weeds in late spring or early summer depending mid-summer followed by regular cuts into autumn. Cutter bar set no lower than 75mm
Years 2-5 Management	g4 – Site 1	April to September/October	Sward to be cut once every two to three weeks during the growing season leaving a 2m wide uncut strip around the margins of the grassland adjacent o boundary hedgerows. Cutter bar set no lower than 50mm A 2m wide strip of the grassland adjacent to the boundary hedgerows to be left to grow during summer and then cut short during late August/early September with first cut arisings removed and then incorporated into regular management until the end of the growing season.
Years 1-5 Control of undesirable species	g4 – Site 1	Following monitoring visits	Undesirable species such as broadleaved dock and creeping thistle to be dug out or spot treated with a suitable herbicide

Grassland (Low Distinctiveness) Species Lists (GL-T03)

Provide a detailed species list for the habitat to be created.

Common Name	Scientific Name	Abundance / %	Comments
Wild Flowers		15%	
Yarrow	<i>Achillea millefolium</i>	0.60%	
Betony	<i>Betonica officinalis</i>	1.50%	
Common Knapweed	<i>Centaurea nigra</i>	2.25%	
Wild Carrot	<i>Daucus carota</i>	0.75%	
Hedge Bedstraw	<i>Galium album</i>	0.75%	
Lady's Bedstraw	<i>Galium verum</i>	0.90%	
Meadow Crane's-bill	<i>Geranium pratense</i>	0.30%	
Oxeye Daisy	<i>Leucanthemum vulgare</i>	1.50%	
Black Medick	<i>Medicago lupulina</i>	0.45%	
Cowslip	<i>Primula veris</i>	0.75%	
Selfheal	<i>Prunella vulgaris</i>	1.50%	
Meadow Buttercup	<i>Ranunculus acris</i>	1.50%	
Red Campion	<i>Silene dioica</i>	0.60%	
Bladder Campion	<i>Silene vulgaris</i>	1.20%	
Tufted Vetch	<i>Vicia cracca</i>	0.45%	
Grasses		85%	

Common Bent	<i>Agrostis capillaris</i>	8.50%	
Crested Dog's-tail	<i>Cynosurus cristatus</i>	29.75%	
Red Fescue	<i>Festuca rubra</i>	25.50%	
Smaller Cat's-tail	<i>Phleum bertolonii</i>	4.25%	
Smooth-stalked Meadow-grass	<i>Poa pratensis</i>	17.00%	

Other Supporting Information

Supporting Information (GL-B02)

Please use this space to provide any additional information where relevant.

What Does Success Look Like? (GL-F01)



Scrub

Creation, Enhancement and Management Summary (SC-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 19. Scrub.

Target Habitat:		Mixed Scrub				
Condition Assessment Criteria	Targeted	Relevant Parcels	Creation approach	Enhancement Approach	Management Approach	
A	The parcel represents a good example of its habitat type – the appearance and composition of the vegetation closely matches its UK Hab description (where in its natural range). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Yes	Off-site h3h	Planting of locally occurring native shrub species with no species comprising more than 75% of the total	Existing gaps in hawthorn dominated scrub to be planted with a range of locally occurring scrub species	Replaced failed planting in first 5 years with same species
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Yes	Off-site h3h	Planting of new scrub species into hawthorn scrub containing mature hawthorn trees and allowing existing seedlings to regenerate		Maintain a diverse age structure of scrub
C	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.	Yes	Off-site h3h		No invasive non-native species present in baseline habitats	Check for presence of invasive non-native species and species indicative of suboptimal condition during annual income and prepare remedial measure of required.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	Off-site h3h	Provide an irregular edge to scrub planting through careful planting of new species		Maintain a graded transition from scrub into adjacent grassland.

Target Habitat:		Mixed Scrub				
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation approach	Enhancement Approach	Management Approach
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	Off-site h3h	Retaine some existing small glades with the scrub planting		Monitor scrub development and manage glades and rides to prevent them from becoming over-mature and shading our ground vegetation.

Additional Management Prescriptions (SC-B01)

Please use this space to detail any additional management measures to be conducted along with the above measures. These may for example include (but are not limited to) measures specifically relating to the presence of protected species or may be additional measures that are in support of local nature recovery targets and, or, planning policy.

Scrub

Creation, Enhancement and Management Detailed Methods (SC-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant parcels	Timing	Prescriptions
Scrub Plant Inspection	Off-site h3h	Immediately upon delivery and prior to planting	On receipt, shrub seedlings are to be inspected to ensure they are free from defects and are the correct species. The roots of planting stock shall be kept moist prior to plating by either: <ul style="list-style-type: none"> coordinating delivery with planting time and ensuring that they are either stored in bags in a cool shaded location if no more than two days between delivery and planting; or, unwrapped and heeled into a bed of soil (and kept watered) for up to two weeks until planting.
Scrub Planting	Off-site h3h	Shrubs to be planted in November 2026 or spring 2027	Planting will comprise 1+1 transplant 60-90cm bare-rooted material, planted during frost-free weather and ensuring the ground is not frozen or waterlogged. Plants be slit planted to minimise impact on grassland into which they are being planted and limit exposure of bare soil to allow undesirable species to become established. Planting density should be approximately 1.5-2 plants/m ²
Protection	Off-site h3h	Immediately after planting	New planted to be protected with individual tree guards to prevent unwanted browsing of new plants by rabbits and other wildlife. The area is not grazed by livestock
Inspection Visits and Actions	Off-site h3h	Annual inspection in late summer to check on establishment and prior to livestock grazing of lowland adjacent meadow.	Annual inspection to check on plant development and condition of stockproof fencing. <ul style="list-style-type: none"> Replace failed plants to specified requirements. For the first five years, any plant that has died will be marked for replacement and then replaced with a similar species and similar size within an appropriate planting season. Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs; Remove windblown litter and other rubbish and fallen leaves Check for development of undesirable species and programme control measure if necessary

Action	Relevant parcels	Timing	Prescriptions
On-going Management	Off-site h3h	No earlier than year 5 after planting	Begin rotational management: <ul style="list-style-type: none"> ▪ Cut or coppice up to 20–25% of scrub every 3–5 years to prevent canopy shading our ground vegetation. ▪ Retain majority of scrub intact at any one time ▪ Coppice hazel and selected hawthorn to promote dense regrowth. ▪ Ensure that glades and ride remain open All cutting to occur outside bird nesting season (March–August inclusive).

Scrub Species Lists (SC-T03)

Provide a detailed species list for the habitat to be created.

Common Name	Scientific Name	Abundance / %	Comments
Field Maple	<i>Acer campestre</i>	10%	60-90cm bare root stock
Hazel	<i>Corylus avellana</i>	35%	60-90cm bare root stock
Hawthorn	<i>Crataegus monogyna</i>	30%	60-90cm bare root stock
Holly	<i>Ilex aquifolium</i>	10%	60-90cm bare root stock
Goat willow	<i>Salix caprea</i>	10%	60-90cm bare root stock
Guelder Rose	<i>Viburnum opulus</i>	5%	60-90cm bare root stock

Other Supporting Information

Supporting Information (SC-B02)

Please use this space to provide any additional information where relevant.

What Does Success Look Like? (SC-F01)



Hedgerow

Creation, Enhancement and Management Summary (HD-T01)

Provide details of the approach to delivering each of the targeted condition criteria and hedgerow type. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 8. Hedgerow

Target Hedgerow Type:		Native hedgerow				
Condition Assessment Criteria		Targeted?	Relevant Features	Creation Approach	Enhancement Approach	Management Approach
A1	Height >1.5m average along length.	Yes	H1	Planting of native species hedgerow	Hedges will be allowed to grow to > 1.5m	Hedges will be trimmed to leave a height > 1.5m
A2	Width >1.5m average along length.	Yes	H1	Planting of native species hedgerow	Hedges will be allowed to grow to > 1.5m wide at base	Hedges will be trimmed to leave a width at base of > 1.5m
B1	Gap – hedge base Gap between ground and base of canopy <0.5m for >90% of length.	Yes	H1	Planting of native species hedgerow		Failed plants to be replaced in first 5 years
B2	Gap – hedgerow canopy continuity Gaps make up <10% of total length; and no canopy gaps >5m.	Yes	H1	Planting of native species hedgerow	All gaps will be re-placed with locally occurring native species. Any losses will be replaced in the first five years	Failed plants to be replaced in first 5 years
C1	Undisturbed ground and perennial vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: <ul style="list-style-type: none"> measured from outer edge of hedgerow, and is present on one side of the hedge (at least) 	Yes	H1		Adjacent habitats within the site will comprise modified grassland	Adjacent habitats will be managed sympathetically as part of their management regime with a 2m strip of modified grassland left uncut during the growing season until late summer (August/September) when the grass will be cut and all arisings removed before being incorporated into the regular mowing until the end of that growing season.
C2	Nutrient-enriched perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	No	N/A			

Target Hedgerow Type:		Native hedgerow				
Condition Assessment Criteria	Targeted?	Relevant Features	Creation Approach	Enhancement Approach	Management Approach	
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species.	Yes	H1			Monitoring to identify any Invasive and neophyte species. Where identified they will be removed by hand or spot treated with a suitable herbicide
D2	Current damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	Yes	H1			No damage predicted from on-going manage of adjacent grasslands. If unforeseen damage occurs remedial measures would be implemented and carried forward into subsequent revisions of this HMMP.
E1	Tree class (applicable to hedgerows with trees only) There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 – 50m of hedgerow.	No	N/A	N/A	N/A	N/A
E2	E2. Tree health (applicable to hedgerows with trees only) At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	No	N/A	N/A	N/A	N/A

Additional Management Prescriptions (HD-B01)

Please use this space to detail any additional management measures to be conducted along with the above measures. These may for example include (but are not limited to) measures specifically relating to the presence of protected species or may be additional measures that are in support of local nature recovery targets and, or, planning policy.

Hedgerow

Creation, Enhancement and Management Methods (HD-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Features	Timing	Prescriptions
Ground preparation	H1	Preferred February/March or late October/November	Hedgerow planting area cultivated, undesirable species and large stones removed
Hedgerow Plant Inspection	H1	Immediately upon delivery and prior to planting	On receipt, shrub seedlings are to be inspected to ensure they are free from defects and are the correct species. The roots of planting stock shall be kept moist prior to plating by either: <ul style="list-style-type: none"> ▪ coordinating delivery with planting time and ensuring that they are either stored in bags in a cool shaded location if no more than two days between delivery and planting; or, ▪ unwrapped and heeled into a bed of soil (and kept watered) for up to two weeks until planting.
Hedgerow Planting	H1	Hedgerow to be planted in first suitable planting season after completion of the development	Planting will comprise 1+1 transplant 60-90cm bare-rooted material, planted during frost-free weather and ensuring the ground is not frozen or waterlogged. To be planted in random groups of 3 or more of 1 species in a double staggered row 450mm between the rows.
Protection	H1	Immediately after planting	Newly planted shrubs to protected with rabbit guards.
Inspection Visits and Actions	H1	Annual inspection in late summer to check on establishment	Annual inspection to check on plant development and condition of tree guards. <ul style="list-style-type: none"> ▪ Replace failed plants to specified requirements. For the first five years, any plant that has died will be marked for replacement and then replaced with a similar species and similar size within an appropriate planting season. ▪ Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs; ▪ Remove windblown litter and other rubbish and fallen leaves Check for development of undesirable species and programme control measure if necessary
Hedge trimming	H1	Once every two years in September to February, but ideally in January/February when birds have eaten most of berries	Annual trimming to be undertaken with mechanical hedge trimmer with a tapered side to create a slight flat-topped A-shape profile. All hedge trimming to occur outside bird nesting season (March–August inclusive). Trimming to commence when the hedgerow has reached a height of 1.5-2m and then maintained at this height with an A-frame shape being wider at the bottom

Hedgerow Species Lists (HD-T03)

Provide a detailed species list for the habitat to be created

Common Name	Scientific Name	Abundance / %	Comments
Field Maple	<i>Acer campestre</i>	5%	60-90cm bare root stock
Hazel	<i>Corylus avellana</i>	20%	60-90cm bare root stock
Hawthorn	<i>Crataegus monogyna</i>	30%	60-90cm bare root stock
Holly	<i>Ilex aquifolium</i>	10%	60-90cm bare root stock
Blackthorn	<i>Prunus spinosa</i>	20%	60-90cm bare root stock
Goat willow	<i>Salix caprea</i>	10%	60-90cm bare root stock
Guelder Rose	<i>Viburnum opulus</i>	5%	60-90cm bare root stock

What Does Success Look Like? (HD-F01)



Other Supporting Information

Supporting Information (HD-B02)

Please use this space to provide any additional information where relevant.

Individual Trees

Creation, Enhancement and Management Summary (UT-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 9. Individual Trees

Target Habitat:		Rural Tree – Moderate Condition				
Condition Assessment Criteria	Targeted	Relevant Features	Creation Approach	Enhancement Approach	Management Approach	
A	The tree is a native species (or more than 70% within the block are native species).	Yes	Site 2	Two native species trees to be planted, Field maple (<i>Acer campestre</i>), cherry <i>Prunus</i> sp,	N/A	A one metre diameter circle is to be maintained weed free around all specimen trees until established.
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Site 2	Trees to be managed to develop a well spread canopy in keeping with the species characteristics.	N/A	Canopy development to be monitored during site monitoring visits and any remedial action determined
C	The tree is mature (or more than 50% within the block are mature).	No	N/A	N/A	N/A	N/A
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	Site 2			Canopy and tree development to be monitored during site monitoring visits to identify any damage impacting tree health and undertake any remedial action necessary.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	Site 2			
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	Site 2	The trees will be planted in areas seeded with wildflower grass mixes to create areas of modified grassland		Habitat underneath trees to be retained and managed as prescribed

Additional Management Prescriptions (UT-B01)

Please use this space to detail any additional management measures to be conducted along with the above measures. These may for example include (but are not limited to) measures specifically relating to the presence of protected species or may be additional measures that are in support of local nature recovery targets and, or, planning policy.

Individual Trees

Creation, Enhancement and Management Detailed Methods (UT-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Features	Timing	Prescriptions
Ground preparation	Urban Trees	Preferred cultivation August–October with planting of hedgerow November through to February	Prior to planting, remove all debris and stones over 50mm diameter within the planting area. Carry out weed control and soil improvement as necessary.
Tree Inspection	Urban Trees	Immediately upon delivery and prior to planting	On receipt, trees are to be inspected to ensure they are free from defects and are the correct species. The roots of planting stock shall be kept moist by either: <ul style="list-style-type: none"> ▪ coordinating delivery with planting time and ensuring that they are either stored in bags in a cool shaded location if no more than two days between delivery and planting; or, unwrapped and heeled into a bed of soil (and kept watered) for up to two weeks until planting.
Tree Planting	Urban Trees	The first planting seasons after completion of the development in either February/March or late October/November.	All planting must be in accordance with BS3936 1992: Nursery Stock and BS 8545 2014 Trees from Nursery to Independence All tree planting should conform to BS8545:2014. Standard trees to be planted in pits 800x800x450mm or dimensions of root ball, whichever is greater. Heavy and Extra Heavy Standard trees to be planted in pits 1000x1000x600mm or dimensions of root ball, whichever is greater. Alginure soil improver and 150g Enmag (or, equivalent) to be incorporated into the soil of all new tree pits. Trees to be planted centrally within a tree pit. Tree stakes shall be of hazel, chestnut or other approved timber. They shall be round, rough sawn, straight, free from projections, large or edge knots and other defects and be pointed at the lower end. They shall be strong enough not to split when driven into the ground and when ties are nailed to them (both initially and when adjusted). For Feathered trees use 2Nr stakes (1.4m by 75mm) to be driven into ground 800mm, leaving 600mm above ground. For Selected Standard Trees 2Nr stakes (1.7m by 100mm) and cross bar are required; stakes to be driven 900mm below ground leaving 800mm above ground. For Heavy/ Extra Heavy trees use 2Nr stakes (2.2m x 100mm) with a 400x100x15mm cross bar. Stakes to be driven into ground 1m leaving 1.2m above ground. Tree ties: All tree ties to be Green-Tech Holdfast Natural Tree Ties. Natural tree tie is made entirely of natural fibres and is fully bio-degradable. A spacer by formed using the Natural tree tie itself. It will not strangle the tree and will bio-degrade as the tree establishes itself.
Protection	Urban Trees	Immediately after planting	All plants to be protected by appropriate rabbit tree shelters where required

Action	Relevant Features	Timing	Prescriptions
Inspection Visits and actions	Urban Trees	August. Will depend upon weather and growing conditions	<ul style="list-style-type: none"> ▪ Top up total cover of mulch to specified depth annually in March; ▪ Water all new plants in the growing season as necessary to ensure effective establishment and growth; ▪ Replace failed plants to specified requirements. For the first five years, any plant that has died will be marked for replacement and then replaced with a similar species and similar size within an appropriate planting season. ▪ Maintain a weed free area around each tree and shrub; ▪ Diameter (minimum): The larger of 1m or the surface of original planting pit; ▪ Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs; ▪ Tree accessories: Check the condition of stakes, ties, guys, guards. Replace broken or missing items. Re-firm loose stakes in the ground or replace as necessary to provide support to the tree. Adjust ties to accommodate growth and prevent constriction or abrasion. If bark damage has occurred cut back neatly with sharp knife and adjust to prevent further damage; ▪ If necessary, prune to promote healthy growth and natural shape; removing dead, dying, diseased wood and suckers during the spring or autumn during the establishment period. All arisings are to be removed off site; ▪ Re-firm plants as necessary. Firm in and straighten any plants loosened and prune out dead, leggy and broken branches, without damage to natural habit of the plant; ▪ Weed Control: Mulch will initially control weed growth around the new plants. As this becomes incorporated into the soil further clearance may be necessary between hedgerow transplants or whips and would be carried out by mechanical means. Any arisings to be removed from site. Base of planting to be kept weed / grass free; ▪ Remove windblown litter and other rubbish and fallen leaves; ▪ Control pests and diseases as necessary.
On-going Management	Urban Trees	At the end of the first 5 years post planting and thereafter every 5 years (subject to management plan review)	Every five years, trees will be checked for any disease, damage or development problems such as rubbing branches or weak fork development and remedial pruning undertaken, as required. Dead branches will be retained where safe to do so to contribute to the biodiversity aims.

Individual Trees Species Lists (UT-T03)

Provide a detailed species list for the habitat to be created

Common Name	Scientific Name	Abundance / %	Comments
Field Maple	Acer campestre	50% (1 tree)	Single Tree planted
Cherry	Prunus padus 'Pandora'	50% (1 Tree)	Single Tree Planted

Other Supporting Information

Supporting Information (UT-B02)

Please use this space to provide any additional information where relevant.

Habitat Creation and Management – Risk Register and Remedial Measures PM-T02

Provide a site-wide risk register associated with creating, enhancing and, or, managing each habitat type. Consider your approach to delivering the BNG targets in case the management prescriptions do not deliver as expected.

Risk Identification Date	Habitat Type	Risk Factor	Trigger for Action	Remedial Measure
Years 1-5	Modified grassland	Poor establishment of a range of species. Should have a minimum of 6-8 vascular plant species per m ² present, including at least 2 forbs by year 5	Less than 6-8 vascular plant species per m ² present, including at least 2 forbs by year 5	Change frequent of management and consider overseeding with a suitable wildflower seed mix or using plug plants
Years 1-5	Modified grassland	Competitive undesirable species dominating sward	Identification of problem species during monitoring sward establishment	Dig out problem species or spot treat with a suitable selective herbicide.
Years 1-5	Modified grassland	Scrub invasion	Identification of problem species during monitoring sward establishment	Dig out problem species or spot treat with a suitable selective herbicide.
Years 1-5	Scrub	Failure of new plants	More than 5% of individual shrubs failed	Ensure planting in accordance with good arboricultural practice, ensuring stock are in good condition, planting depth is correct, that weed competition is controlled for the first 5 years post planting and that there is a watering regime in place for dry periods during the first 3 years post planting. Any failures to be replaced during the first available planting season.
Years 1-5	Hedgerow plants failure	Failure of new plants	More than 5% of individual shrubs failed	Ensure planting in accordance with good arboricultural practice, ensuring stock are in good condition, planting depth is correct, that a weed competition is controlled for the first 5 years post planting and that there is a watering regime in place for dry periods during the first 3 years post planting. Any failures to be replaced during the first available planting season.
Years 1-5	Individual Trees	Poor development of individual trees	More than 10% of individual trees failed	Ensure planting in accordance with good arboricultural practice, ensuring stock are in good condition, planting depth is correct, that a weed-free area is being maintained for the first 5 years post planting and that there is a watering regime in place for dry periods during the first 3 years post planting. Any failures to be replaced during the first available planting season.

3. Monitoring Schedule

To deliver BNG, a robust strategy is critical to monitor successes and challenges. Routine monitoring informs progress and facilitates the required management plan updates at set intervals.

Monitoring Strategy

Provide details of the monitoring strategy to encourage successful implementation of the management plan (MS-B01)

Monitoring of habitat establishment will be undertaken in the first five years during the important habitat establishment period and once every five years thereafter unless monitoring results indicate a need for more frequent surveys due to poor habitat establishment or development compared to target conditions.

Monitoring visits shall comprise detailed botanical surveys using quadrats to measure habitat development against target conditions supported by fixed point photography.

In the first five years monitoring visits will check the health of trees and shrubs and identify where replacements are required and look for areas of poor grassland and ditch bank vegetation establishment

Monitoring Methods and Intervals MS-T01

Provide details of the methods you will use to adequately monitor the progress towards the targets stated in the management plan and as agreed with the Local Planning Authority.

[Monitoring methods and frequency need to be considered according to habitat type. The text below is only for illustrative purposes. Plan according to your own project and habitat requirements.](#)

Habitat Type	Monitoring Methods	Monitoring Interval and Timing
Modified Grassland	Undertake quadrat sampling of species per 2 x 2m quadrat placed randomly within the survey area and record approximate cover (DOMIN scale). Estimate percentage of bare ground, bramble and bracken cover. Estimate area of sward greater and less than 7cm. Compile a plant species list across the whole grassland recording unit to check against target species list and compare against baseline list. Take fixed point photographs for comparison between years Look for presence of invasive non-native species	Years 1 to 5 – Annual surveys to be completed then once every 5 years thereafter for a 30 years post habitat creation Surveys to be completed in June or early July prior to hay harvest
Mixed Scrub	Check health of plants and identify replacement needs in years 1 to 5, Check rabbit guard protection and replace or remove as required Monitor development of bramble cover Take fixed point photographs for comparison between years Look for presence of invasive non-native species	Years 1 to 5 – Annual surveys to be completed then once every 5 years thereafter for a 30 years post habitat creation Surveys to be completed in June or early July

Habitat Type	Monitoring Methods	Monitoring Interval and Timing
Hedgerows	<p>Check health of plants and identify replacement needs in years 1 to 5,</p> <p>Check rabbit guard protection and replace or remove as required</p> <p>Monitor development of bramble cover</p> <p>Take fixed point photographs for comparison between years</p> <p>Look for presence of invasive non-native species</p>	<p>Years 1 to 5 – Annual surveys to be completed then once every 5 years thereafter for a 30 years post habitat creation</p> <p>Surveys to be completed in June or early July</p>
Individual Trees	<p>Check health of plants and identify replacement needs in years 1 to 5,</p> <p>Check rabbit guard protection and replace or remove as required</p> <p>Monitor development of bramble cover</p> <p>Take fixed point photographs for comparison between years</p> <p>Look for presence of invasive non-native species</p>	<p>Years 1 to 5 – Annual surveys to be completed then once every 5 years thereafter for a 30 years post habitat creation</p> <p>Surveys to be completed in June or early July</p>

Monitoring Reports

Following completion of habitat creation and initial enhancement works, prepare for your monitoring report for the Local Planning Authority or Responsible Body. You should monitor each habitat type comprising the BNG project. Provide sufficient detail for the reviewing authority to assess the progress. The 'Monitoring Report Template' can help you do this. The requirements and regularity with which the monitoring reports are required are at the discretion of the LPA or Responsible Body. Prepare the monitoring requirements below.

Monitoring Report Schedule MS-T02

Provide details of the person or organisation that will be responsible for submitting the monitoring reports. Also state the responsible organisation for receiving and reviewing the reports.

Organisation Responsible for Submitting the Monitoring Reports	Organisation Receiving and Responsible for Reviewing Reports
Mulgrave Developments Ltd	Barnsley Metropolitan Borough Council

Provide details of when the monitoring surveys and reports will be undertaken and submitted. You can extend the table and adjust according to your required schedule.

Project Year	Month Report to be Submitted	Month Management Plan to be reviewed	Comments
Y1	November 2030	October 2030	Report on results of initial habitat creation measures
Y2	November 2031	October 2031	Report on first growing season monitoring and habitat establishment
Y3	November 2032	October 2032	Annual monitoring report and recommendations for any remedial measures required for management
Y4	November 2033	October 2033	Annual monitoring report and recommendations for any remedial measures required for management
Y5	November 2035	October 2035	Annual monitoring report for first five years of establishment

Project Year	Month Report to be Submitted	Month Management Plan to be reviewed	Comments
Y10	November 2040	October 2040	Five year monitoring report and recommendations for any remedial measures required for management
Y15	November 2045	October 2045	Five year monitoring report and recommendations for any remedial measures required for management
Y20	November 2050	October 2050	Five year monitoring report and recommendations for any remedial measures required for management
Y25	November 2055	October 2055	Five year monitoring report and recommendations for any remedial measures required for management
Y30	November 2060	October 2060	Final Report

Adaptive Management

Summary of Adaptive Management Approaches (MS-B02)

Adaptive management is a systematic approach to natural resource management that involves monitoring and evaluating the effectiveness of management actions then adjusting as necessary to improve outcomes over time. It is an iterative process in which management actions are followed by targeted monitoring outcomes. These, in turn, inform the ongoing management.

Monitoring results will inform necessary management changes to promote achieving BNG targets stated in the statutory biodiversity metric and HMMP. The monitoring will identify any unexpected, external influences along with looking for risk identified in the Risk Register and Remedial Measures section [PM-T02](#). This is especially important during the first five years of habitat establishment when correcting issues may be easier than later in the progress of habitat development, such as the control of invasive non-native species before they become too established.

The monitoring reports will consider the following as part of the adaptive management process

- Assessment of habitats against the defined objectives with detailed site notes on factors that are preventing habitat establishment which this occurs
- Record the presence or absence of target species with detailed site notes on factors that are preventing their establishment which this occurs
- Detailed recommendations (where appropriate) on remedial management actions required to promote habitat or species development including timescales for undertaking actions and marked site plans to show the locations of such actions
- Photographs from the fixed monitoring points detailed in the management plan using high quality images.
- Include an update to the Habitat Creation and Management – Risk Register and Remedial Measures PM-T02 table from the companion document with any remedial measures that are recommended

It is important that observations from survey, monitoring and day to day management are fed back through to changes in management where issues have been identified.

Any remedial action or changes in management will be agreed in consultation with the Barnsley Metropolitan Borough Council to ensure that all parties are in agreement with any changes to this HMMP. Agreed changes will then be reflected in the HMMP