

NATURAL
ENGLAND



Department
for Environment
Food & Rural Affairs

Habitat Management and
Monitoring Plan

Site Name:	Bowlee Park Driving Range
	04/01/2025
Version:	6

Author:

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Living Ecosystems,
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BL8 1UU.

Client:

Improve My Golf Ltd.
Bowlee Driving Range,
Heywood Old Rd,
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Template published by Natural England.

We acknowledge the significant input from the HMMPT user-testers and production on Natural England's behalf by FPCR Environment and Design.

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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
Version 6R	Issued as draft	RWP 30/12/2024	

Document Details

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Authorship Details

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	
Development Name and Address	Bowlee Park Driving Range Heywood Old Road Middleton M24 4TH
BNG Project Name and Address	Bowlee Park Driving Range Heywood Old Road Middleton M24 4TH
Author Organisation	Richard Parkinson
Landowner	Manchester City Council
Land Manager	Graham and Christopher Fletcher 100 year lease from MCC
Responsible person/organisation for creating or enhancing the habitat	Richard Parkinson Living Ecosystems 24 Orwell Close BL8 1UU
Period covered by this management plan	Jan 2025 to Jan 2040
Planning authority	Rochdale
Planning reference (if applicable)	24/00770/FUL
BNG register reference (if applicable)	N/A
Central OS grid reference	SD 845 065

Metric revision/title	statutory biodiversity metric
Are any Irreplaceable Habitats present onsite	No

Summary of Management Plan

Habitats to be Retained, Created and Enhanced PB-B02

Habitat creation and enhancement at Bowlee Park Driving Range

Good horticultural practices should be employed to ensure no, or minimal, use of pesticides and herbicides. Where possible landscape planting within the proposed development area should aspire to consist of at least 50% of native or otherwise beneficial species preferably of UK provenance. A beneficial species is one which though not native is not invasive or harmful; and also provides significant ecological resources to native species, such as nectar, fruit, berries, nesting opportunities or cover amongst others. This will contribute to local Biodiversity Action Plan goals. Beneficial species include non- native species which are not invasive and provide significant wildlife opportunities such as nectar berries, cover or nesting opportunities.

Hedgerow creation/enhancement

The 140 metre length of existing hedgerows with trees along the boundaries of the car park will be enhanced by additional planting. This will support a wide range of species, including breeding birds, amphibians, foraging bats, invertebrate species and other small mammals.

Hedgerow specification

Areas of hedgerow to be restored should use typical native species of local provenance. The following list of species and the percentage mix are typical of hedgerows found in Greater Manchester. Planting should contain a mix of 5 or more the following species, with a predominance (40% +) of hawthorn (*Crataegus monogyna*) and or blackthorn (*Prunus spinosa*).

Beech spp (up to 10%) Fagus species

Hornbeam (5% +) Carpinus betulinus

Climbing roses (5% +) Rosa species

Rowan (5% +) Sorbus aucuparia

Holly (10% +)Ilex aquifolium

Hazel (10% +) Corylus avellana

Hawthorn/Blackthorn (40% +) Crataegus monogyna / Prunus spinosa

Guelder rose (5% +) Viburnum species

Dogwoods (10% +) Cornus species

Barberry (5% +) Berberis species

All hedgerow planting shall be carried out in accordance with BS4428:1989 code of practice for general landscape operations (excluding hard surfaces). Hedgerow plants shall either be notch or trench planted into uncompacted soil, free of vegetation. Hedge trenches shall be dug to a minimum depth of 400mm and width of 600mm, with the plants put into the ground at the same depth at

which they had been previously grown in the nursery. All plants shall be well heeled in after planting. Hedging plants to be supplied as bare-root specimens. All plant roots shall be kept under a moist cloth or in a bucket of water during planting. Plants not planted on day receipt are to be heeled-in in a pre-prepared trench and kept moist until plants are required. Hedges should only be planted between November and March, while plants are still dormant. Avoid planting in very cold or wet weather. All plants to be feathered whips 1.25 1.50 m high, to be planted at 0.3 m spacing in a double row at 0.4 m apart.

The following species can be planted in the hedge bases at a rate of 2 to 4 plants per metre of hedge to further improve diversity. At least 5 of the species below should be included in the scheme.

Bluebell (UK variant) Hyacinthoides non-scripta

Honeysuckle Lonicera periclymenum or other suitable Lonicera species

Red campion Silene dioica and or White campion Silene alba

Ramsoms (wild garlic) Allium ursinum

Wood anemone Anemone nemorosa

Primrose Primula vulgaris or other primulas

Wood avens Geum urbanum

Common dog-violet Viola riviniana or other pansies

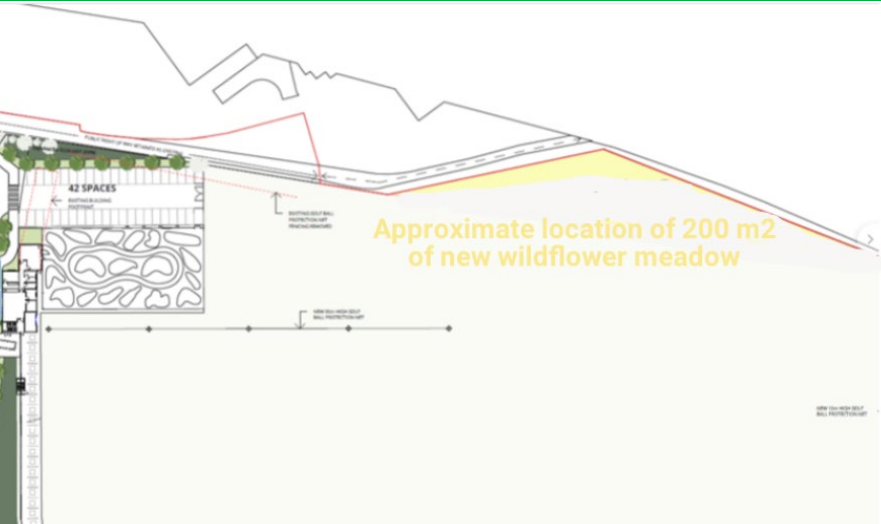
Herb Robert or other geranium species

Ivy/Hedera species (preferably Hedera helix)

Tutsan species or other Hypericum species

Lowland meadow creation

200 square metres of species-rich lowland meadow will be created on land formerly closely mown amenity grassland.



The creation of 200 square metres of lowland species rich meadow is recommended

This will be achieved by leaving the land fallow for 18 months before lightly harrowing and sowing with a local provenance wildflower seed mix appropriate to the location. Plug planting may form part of the long-term species establishment and management of the grassland areas to increase species diversity. Following consultation with the Greater Manchester Ecology Unit, a suitable species-rich grassland seed mix containing native species of local provenance (such as MG6 or 5) will be agreed. The seed will be sown directly on to the soil, which will have been previously harrowed and treated with an appropriate translocated herbicide, to help prevent colonisation by undesirable species such as dock, ragwort and creeping thistle. The maximum wild flower and grass seed sowing rate should not exceed 5gm-2. It is recommended that the wild flower component of a seed mixture should contain about ten herb species from table below. Where soil has been removed as part of the de-contamination process - as in the case of the burning ground - it will be replaced with subsoil topped with a thin layer (5 cm) of infertile topsoil or appropriate subsoil in order to reduce fertility and to provide a suitable growing medium for the wildflower mix.

Alternatively, a thin - 8cm or less - dressing of a topsoil-and-sand mix may be applied prior to sowing. Wherever stripped topsoil is used, there should be treatment with a systemic herbicide six weeks after being laid to remove any undesirable re-growth from the seed bank in the topsoil. The meadow area will be over-sown in September 2011 with yellow rattle (*Rhinanthus minor*), an attractive annual which is a hemi-parasite on grass species as part of the on-going grassland management. This species is helpful as it reduces the vigour of grasses, allowing sensitive flowering herb species - which would normally be swamped - to grow and spread. The resulting meadow will be a slightly smaller but far more diverse and sustainable replacement for the temporary cornfield annual habitat. It will have several distinct advantages: it is sustainable and easy to manage, requiring only a biennial cut, with a swipe in late summer (late July to early August); cutting once every two years will reduce the potential impact on amphibians whilst still preventing woody species from becoming established. The cut vegetation should be removed from the site and disposed of either for composting or as hay. This meadow containing native local species will also be aesthetically pleasing and will attract an even more diverse mix of invertebrate species than the cornfield annuals, providing even greater foraging opportunities for bat and bird species. Over time this habitat should improve still further as additional wild flower species colonise naturally.

Water Vole Protection Measures

A recently excavated ditch terminating in a small pond have been excavated during the last two years in order to alleviate flood risks. The pond is at an early successional phase and has been colonised by flote grass. A few seedlings of water loving trees alder and willow have begun to grow on the margins of the pond. A water vole burrow was clearly visible on the southern bank of the pond and is shown in Figure 4 above.

As water voles are present on the site it is vital that measures be taken to avoid any negative impacts upon this protected species as a result of the development proposals. A reasonable avoidance strategy has therefore been adopted in relation to water voles.

Initially a 10 metre wide protective buffer zone be established around the burrow (see Figure 5 below). The tussocky grassland comprising habitat compartment D is ideal habitat for water voles. This habitat will be retained and protected within a radius of 10 metres of the burrow. The pond and drainage ditch being used by the water voles should be retained and maintained. Any works inside this protected area will be kept to a minimum and supervised by a suitably qualified ecologist.



Figure 5 Red line showing 10 metre protective buffer zone around water vole burrow

Reasonable avoidance methodology for carrying out works near water vole habitat without a license

If it is considered essential to undertake works inside the 10 metre radius protective buffer zone:

1. The work must be necessary and unavoidable.
2. A method statement must be prepared, describing how work will be undertaken to minimise the likelihood of any offences being committed.
3. All works within 10 metres of the nearest sett entrance must be undertaken using hand tools only unless unavoidable. In the event that work must be carried out using machines within the protective buffer zone this should be carried out under the supervision of a qualified ecologist.



Details of the proposed works

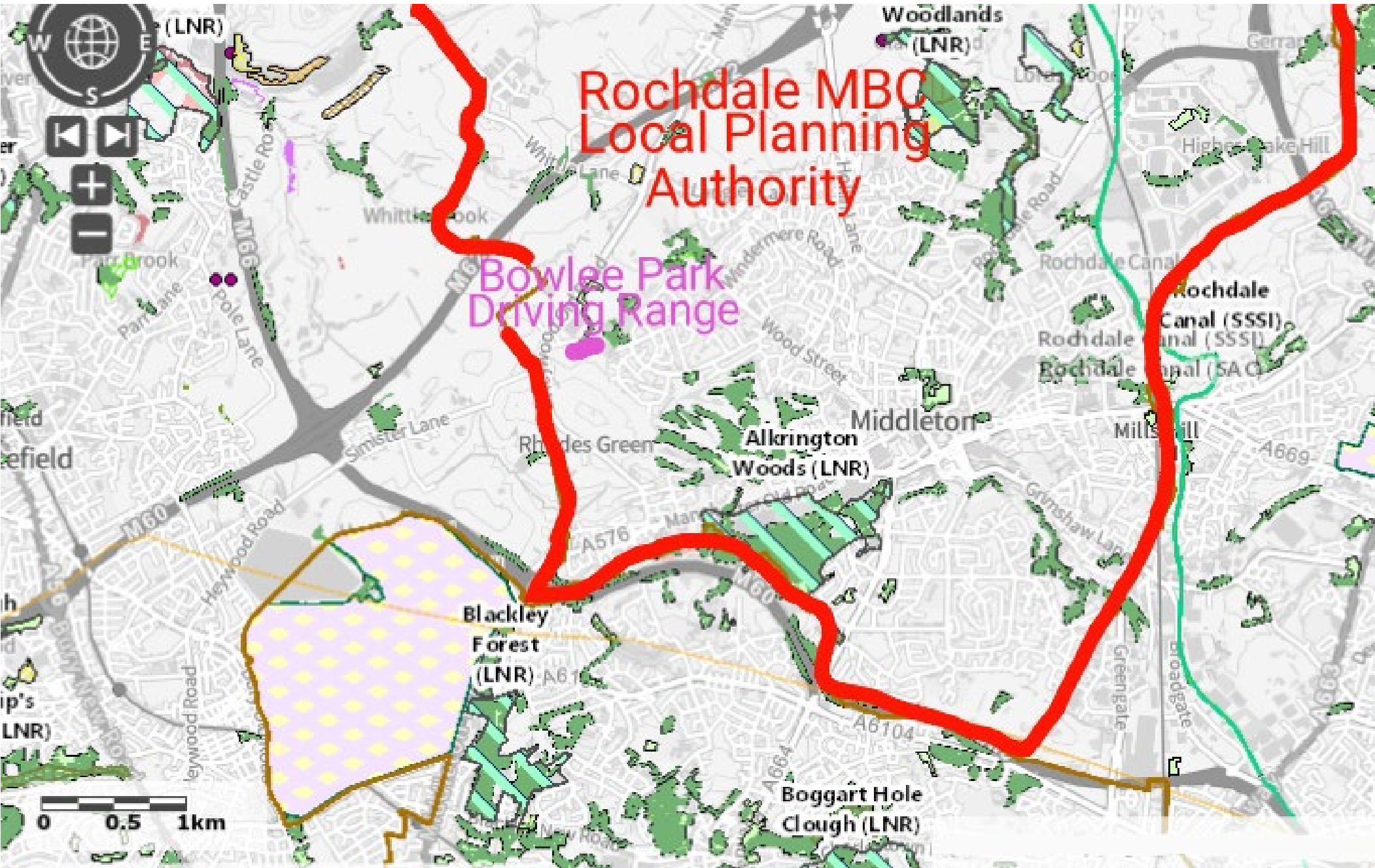
The proposed development comprises the construction of an adventure golf course, an increase in the number of car parking spaces (phase 01) and the addition of another storey on the existing driving range building (phase 02).



Figure showing the current development proposals

Site Context Plan PB-F02

This plan should show the location of the site, including the LPA, boundary, national character area, and any relevant landscape scale policy or guidance information.



Phasing strategy

Will the proposed work measures be delivered in phases? PB-B08

Yes: ☐

Phase 1 will include the establishment of 200 square metres of wildflower meadow and the reduction in the use of chemical fertilisers and herbicides on the rest of the site to improve the biodiversity of the turf sward. The condition of the lowland meadow and closely mown sports turf will be monitored twice annually in May and July starting in 2025 (see monitoring section below).

Phase 2 will consist of the creation/enhancement of hedgerows in the new and existing carparking zones. This will happen after 2026.

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		Richard Parkinson (RWP)		
Organisation		Living Ecosystems		
Responsibility	Start Date:April 2024		End Date:	2040
To produce and submit HMMP to Rochdale LPA				
To supervise and monitor the implementation of the HMMP.				
To supervise the habitat enhancements on site as documented in the HMMP. The Ecologist is responsible for the HMMP, both in terms of the production and implementation of this HMMP				
Statement of Competency				
Richard Parkinson MIEEM BSc FLS is a Principal Ecologist with over 20 years' experience as a Ecological Consultant. He has held several protected species licenses and is currently the holder of a GCN Mitigation License for a development in West Lancashire.				
Over the last 20 years he has consulted on a vast number of small and larger housing and infrastructure developments in the Northwest of England.				

He co organised and supervised all ecological aspects of the re-development of the Royal Ordnance Factory Chorley. This was a 7-year project which at the time was the largest development in Europe.

Landowner or Land Manager PB-B10

Name or Initials		Graham Fletcher Christopher Fletcher		
Organisation		Improve My Golf Bowlee Park Driving range		
Responsibility	Start Date:	Spring 2025	End Date:	Spring 2040
Ongoing land management of the site. Routine monitoring and reporting / liaison with ecologist in relation to ecological issues and monitoring.				
Statement of Competency				
Demonstrate management and monitoring competency and, or, relevant site knowledge and skills through relevant training, qualifications or experience, or a combination of these.				

Management Organisation(s) Responsible for Implementing the HMMP PB-B11

Name or Initials		Graham Fletcher Christopher Fletcher		
Organisation		Improve My Golf Bowlee Park Driving range		
Responsibility	Start Date:	Spring 2025	End Date:	Spring 2040

Ongoing land management of the site. Routine monitoring and reporting / liaison with ecologist in relation to ecological issues and monitoring. Commissioning groundwork, landscaping, planting and sowing.				
Statement of Competency				
Demonstrate the knowledge, skills and, or, experience to manage the habitats to achieve the BNG requirements, through relevant training, qualifications, experience, or combination of these.				
LPA or Responsible Body for Reviewing HMMP PB-B12				
Name or Initials		TBA		
Organisation		Rochdale LPA		
Responsibility	Start Date:2025		End Date:	2040
Summarise the agreed relevant responsibilities of the LPA or Responsible Body in the review, auditing and, or long-term involvement in the implementation of this HMMP (if applicable)				

Land Use Summary

Overview of Baseline Site Use PB-B13			
The site will continue to be used as a golf driving range exactly as it was before, but with the addition of 200 square metres of lowland herb rich meadow. The meadow will be mowed once annually in late July or August and the arisings will be composted on site. Other land management will continue as before mostly consisting of regular mowing and hedge clipping (outside the breeding bird season). As it can be seen from the site context photos, a majority of the site consists of close mown turf with some ornamental hedges in the car park. There is also a ditch and pond in the car park created to alleviate flooding issues. This is surrounded by a small area of tussocky grassland which will be retained for the resident water voles.			
Site Name	Designation	Distance from Project Site	Potential Impact from Project
			Positive
			Negative
Alkington Woods	Local Nature Reserve	1.38 km	Negligible
Overview of Proposed Site Use PB-B14			

The site will continue to be used as a golf driving range exactly as it was before, but with the addition of 200 square metres of lowland herb rich meadow. The meadow will be mowed once annually in late July or August and the arisings will be composted on site. Other land management will continue as before mostly consisting of regular mowing and hedge clipping (outside the breeding bird season). As it can be seen from the site context photos most of the site consists of close mown turf with some ornamental hedges in the car park. There is also a ditch and pond in the car park created to alleviate flooding issues. This is surrounded by a small area of tussocky grassland which will be retained for the resident water voles.

Site Context Photos PB-F03



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

Consider the Baseline and Environmental Information listed below. These are likely to be appropriate factors informing your proposals and project design. They can provide the reviewer with important contextual information for the management prescriptions provided later in this document. Use your professional judgement to determine which factors are relevant to your specific project.

Please use the check box to indicate which are included in your plan. For any not included, provide brief reasons why the factor is not relevant to your project using your professional judgement. Where this information is provided elsewhere, you can reference existing reports and, or, plans that have informed your decisions. For the templates for each heading see pages 3-20 of the Companion Document.

Baseline and Environmental Information	Check box if included	Document Reference or Reason if not included
Statutory / Non-statutory Designated Sites	☐	No designated sites will be impacted.
Protected and Notable Species	☐	Water voles will be impacted. A reasonable avoidance methodology has been included along with habitat protection measures. Details can be found in Appendix 1 of the Bowlee PEA Report.
Invasive Non-Native Species (INNS)		None present that will affect the development.
Biological Records Plan - Sites and Species	☐	Water voles are present a reasonable avoidance methodology has been included along with habitat protection measures. Details can be found in Appendix 1 of the Bowlee PEA Report.
Baseline Habitats Survey	☐	A baseline habitat survey is included in the Bowlee PEA Report lodged with Rochdale MBC Planning Department.
Public Access	☐	All plans and documents relating to the development are on the Public Record and are accessible through the online Rochdale MBC Planning Portal.
Climate	☐	N/A
Geology and Topography	☐	No
Agricultural Land Status	☐	No
Soils and Substrates	☐	No
Contaminated Land	☐	No
Hydrology and Drainage	☐	Drainage ditches and ponds created to alleviate flooding on the site have been colonised by water voles and common frogs. These features will be retained along with the surrounding habitats which benefit these and related species.
Flood Risk Zones	☐	No
Landscape Character and Designations	☐	No
Historic Land Use	☐	No
Historic Environment and Earth Heritage	☐	No
Other – please specify	☐	None

Baseline and Environmental Information

2.0 Desktop Study and Data Search

PEA report outlining the ecological and environmental baseline conditions at Bowlee Park Driving Range in May and June 2025

This report contains the findings of a Preliminary Ecological Assessment (PEA). The Purpose of a PEA is to identify the potential for presence of protected species on a site, in line with European legislation, UK law and the requirements of The National Planning Policy Framework (NPPF, 2021). The brief of the ecological survey was to assess the habitats found on site and identify the potential for presence on site of protected species. The site-based element is supported by a desktop study undertaken to identify presence of Statutory/National/Local designations or protected species within the vicinity (from a 1 km to a 5 km radius) of the site. The final part of the project brief was to identify and make recommendations as appropriate for any further surveys required to determine presence/absence of protected species on site if the survey determined that presence of a protected species on site was considered to be reasonably likely.

The following sources of information and ecological records were consulted:

A desktop study was undertaken through MAGIC (Multi-Agency Geographic Information System for Countryside). The search looked to identify the presence of statutory designated sites within a 1km radius (e.g. Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR). A wider search radius up to 5 km has also been considered where appropriate in the site’s context. The NBN Atlas: which is the UK’s largest repository of publicly available biodiversity data was used to find local records of relevant protected species and any other species of importance locally. All measurements within this report are approximate only, and have been estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

3.0 Desktop Study and Data Search Results

The site is not designated as a statutory designated site for nature conservation, and no statutory designated sites for nature conservation lie within a 1.0 kilometre radius of the site. The site does not lie within the impact risk Zone of any statutory designated site

The site has no non-statutory designations for nature conservation, and no non-statutory designated sites for nature conservation lie directly adjacent to the site boundary. No statutory or non-statutory sites exist within a 1.0 kilometre radius of the site. The site does not lie within the impact zone of a SSSI.

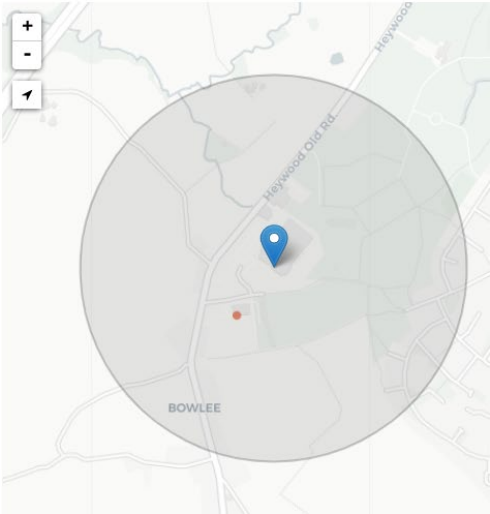
Previous records of protected species within a 1.0 km radius of the site.

The only protected species recorded within a 1.0 km radius of the site is the common pipistrelle bat.

Bats

There have been four records of common pipistrelle bats within a 0.5 kilometre radius of the site, all of the records were made at a location about 150 metres south of the site which is marked on the map below. The area around the site does provide significant foraging potential and common pipistrelle bats were recorded foraging around the site during the amphibian survey visits during May 2024. A bat scoping survey was carried out at the site during April 2024. There was no evidence for bat roosts in buildings on the site and they are considered to be unsuitable for bats. The lighting scheme at the site will include mitigation measures to reduce any impacts upon bats.

cies	Common Name	Species	Records
1.	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	4
	species profile list of records		
2.	Smooth Newt	<i>Lissotriton vulgaris</i>	3
3.	Rook	<i>Corvus frugilegus</i>	1
4.	Robin	<i>Erithacus rubecula</i>	1
5.	Swallow	<i>Hirundo rustica</i>	1
6.	Great Tit	<i>Parus major</i>	1
7.	Tree Sparrow	<i>Passer montanus</i>	1
8.	Pheasant	<i>Phasianus colchicus</i>	1
9.	Dunnock	<i>Prunella modularis</i>	1
10.	Common Frog	<i>Rana temporaria</i>	1
11.	Goldcrest	<i>Regulus regulus</i>	1



Location of the 4 common pippistrelle bat records within a 0.5 km radius of the site

Amphibians

Two ponds within a 500 metre radius of the site were considered to be suitable as breeding site for great crested newts or other amphibians. For this reason a survey for great crested newts (*Triturus cristatus*) was considered necessary. The survey of both ponds was carried out during May 2024 and found smooth newts and common frogs breeding in Pond Number 2 and juvenile frogs but no evidence of breeding in Pond Number 1.



Figure 4 Suitable newt breeding ponds in a 500 metre radius of Bowlee Park

Great crested newt (gcn) surveys

Planning regulations require that all suitable great crested newt breeding ponds within a 500 metre radius of a proposed development site be surveyed for gcns, unless they are separated from the site by insurmountable barriers such as running water or busy roads. Suitable breeding ponds may be identified by competent gcn licenced ecologists or using the GCN Habitat Suitability Index Matrix Calculator. All ponds scoring 'Average' or better using the GCN HSI Matrix should be surveyed.

Categorisation of HSI Score by Lee Brady	
HSI Score	Pond Suitability
< 0.50	Poor
0.50 - 0.59	Below average
0.60 - 0.69	Average
0.70 - 0.79	Good
> 0.80	Excellent
Based on	ARGUK advice note 5 - Great Crested Newt Habitat Suitability Index

ARGUK GCN HSI Calculator			
		Pond Name	Bowlee D R
		Grid Ref	
SI No	SI Description		SI Value
1	Geographic location		1
2	Pond area		0.2
3	Pond permanence		1
4	Water quality		1
5	Shade		1
6	Water fowl effect		1
7	Fish presence		1
8	Pond Density		0.8
9	Terrestrial habitat		1
10	Macrophyte cover		0.6
HSI Score			0.79
Pond suitability (see below)			Good

Figure 5 GCN HSI score for pond & ditch number 1

ARGUK GCN HSI Calculator			
		Pond Name	
		Grid Ref	
SI No	SI Description		SI Value
1	Geographic location		1
2	Pond area		1
3	Pond permanence		0.9
4	Water quality		1
5	Shade		1
6	Water fowl effect		1
7	Fish presence		1
8	Pond Density		1
9	Terrestrial habitat		1
10	Macrophyte cover		1
HSI Score			0.99
Pond suitability (see below)			Excellent

Figure 6 GCN HSI score for pond number 2

Pond & ditch number 1 in the Bowlee Driving Range car park area scored 0.79 or 'Good' on the GCN HSI Matrix and therefore must be surveyed. Pond number 2 scored 0.99 or 'Excellent' on the GCN HSI Matrix and therefore must also be surveyed. This requirement is further re-enforced by the known existence of a great crested newt breeding population less than 2 km to the south east of the site as shown by the National Biodiversity Network Gateway record below.

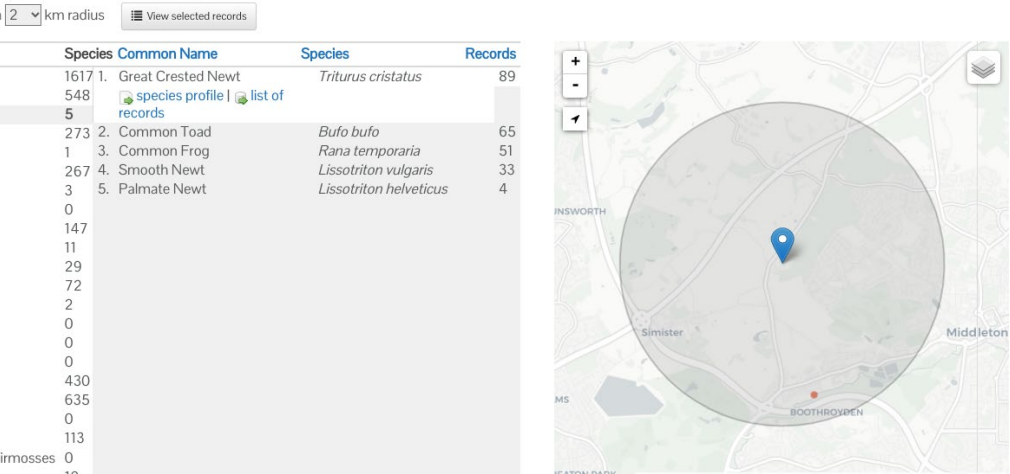


Figure 7 Great crested newts have been recorded slightly less than 2 km south of the site

Common frog and smooth newt - Both species have all been recorded at a site within a 0.5 km radius of the site. All of the records were made at a location approximately 400 metres to the south of the site.

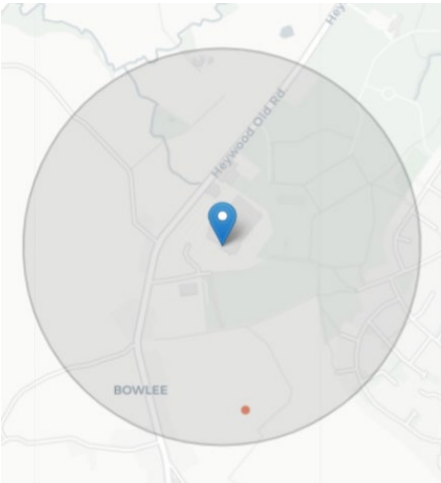


Figure 8 Location of common frog and smooth newt records within a 0.5 km radius of the site

A detailed habitat survey of the site was undertaken on the morning of 1st May 2024. The weather was overcast, dry, mild (12 degrees C) and with a light wind. The survey was carried out by Richard Parkinson a very experienced Principal Ecologist with over 30 years of appropriate experience. The initial survey was carried out at an optimal time and I am entirely confident that the survey has identified and addressed all the relevant ecological issues at the site.

4.0 Habitat survey methodology

A detailed habitat survey of the site was undertaken on the morning of 1st May 2024. The weather was overcast, dry, mild (12 degrees C) and with a light wind. The survey was carried out by Richard Parkinson a very experienced Principal Ecologist with over 30 years of appropriate experience. The initial survey was carried out at an optimal time and I am entirely confident that the survey has identified and addressed all the relevant ecological issues at the site.

All habitats were mapped and each habitat was separated where possible into compartments with a list of the plant species found in each.

Objective(s) of the botanical survey

The objectives of the survey were to assess the habitats and plant assemblages on site:-

- 1) Undertake a habitat survey of the site and the surrounding environs;
- 2) Identify the habitat and plant assemblages on the site.
- 3) Determine the likely presence/absence of any protected plant species or habitats on the site.

4.1 Results of the initial habitat survey - 1st May 2024



Figure 9 A view of part of the survey area

The following section presents the findings of the habitat survey. The habitats compartments are shown on the map below. A detailed species list is included for each compartment.

DAFOR frequency ratings have used as follows :

- ☐ Dominant: the species appears at most (>60%) stops and it covers more than 50% of each sampling unit;
- ☐ Abundant: species occurs regularly throughout a stand, at most (>60%) stops and its cover is less than 50% of each sampling unit;
- ☐ Frequent: species recorded from 31-60% of stops;
- ☐ Occasional: species recorded from 11-30% of stops;
- ☐ Rare: species recorded from up to 10% of stops.



Figure 10 Habitat compartments

Compartment A – an area of self generated tall ruderal herbs

Compartment A is an area of self generated tall ruderal herbs forming a 2 metre wide strip along the side of most of the Bowlee Park Driving Range's northern and southern boundary fences.



Figure 11 Compartment A

Species present in compartment A

Norway maple (*Acer palmatum*) R

Sycamore saplings (*Acer psuedoplatanus*) R

- Grey willow saplings (salix cineria) R
- Ash saplings with dieback (Fraxinus excelsior) R
- Cow parsley (Anthriscus sylvestris) A
- Nettle (Urtica dioica) A
- Dandelion (Taraxacum officinale) F
- Ribwort (Plantago lanceolata) O
- Bush vetch (Vicia sepium) R
- Cuckoo flower (Cardamine palustris) R
- Broad leaved dock (Rumex obtusifolius) O
- Black knapweed (Centaurea nigra) O
- Common sorrel (Rumex acetosa) O
- Holly sapling (Ilex aquifolium) R
- Bramble (Rubus fruticosus) R
- Ground elder (Aegopodium podagraria) R
- Rosebay willowherb (Chamaenerion angustifolium) R

Compartment B - an area of dense bramble

The whole compartment is occupied by a 3 metre wide strip of very dense bramble along the eastern boundary fence of the Bowlee Park Driving Range.



Figure 12 Compartment B

Species present in compartment B

- Bramble (*Rubus fruticosus*) D
- Ground elder (*Aegopodium podagraria*) A
- Cow parsley (*Anthriscus sylvestris*) O

Compartment C - an area of of closely mown amenity grassland

The whole compartment consists of closely mown amenity grassland used for golf.



Figure 13 Compartment C

Species present in compartment C

- Meadow foxtail (*Alopecurus pratensis*) F
- Annual meadow grass (*Poa trivialis*) F

- Red fescue (*Festuca rubra*) F
- Cocksfoot grass (*Dactylus glomerata*) O
- False oat grass (*Arrhenatherum elatius*) F
- Broad leaved dock (*Obtusifolius*) O
- Daisy (*Bellis perenis*) R
- White clover F
- Black medick F
- Creeping buttercup (*Rannunculus repens*) F
- Dandelion (*Taraxacum officinale*) F
- Hoary plantain (*Plantago media*) F
- Ribwort (*Plantago lanceolata*)F

Compartment D - an area of tussock grass with some trees and shrubs



Figure 14 Compartment D is an area of tussock grass with some trees and shrubs surrounding a ditch terminating in a pond. The ditch and pond were dug out to alleviate flooding approximately 18 months earlier.

Species in compartment D

- Meadow foxtail (*Alopecurus pratensis*) F
- Annual meadow grass (*Poa trivialis*) F
- Red fescue (*Festuca rubra*) F

- Cocksfoot grass (*Dactylus glomerata*) O
- False oat grass (*Arrhenatherum elatius*) F
- Broad leaved dock (*Obtusifolius*) O
- Daisy (*Bellis perenis*) R
- Creeping buttercup (*Rannunculus repens*) F
- Dandelion (*Taraxacum officinale*) F
- Hoary plantain (*Plantago media*) F
- Ribwort (*Plantago lanceolata*) F
- Hawthorn (*Crataegus monogyna*) R
- Beech (*Fagus sylvatica*) O
- Bramble (*Rubus fruticosus*) O
- Alder (*Alnus glutinosa*) R
- Cleavers (*Gallium aparine*) O
- Rosebay willowherb (*Chamaenerion angustifolium*) O
- Spear thistle (*Cirsium vulgare*) O
- Creeping thistle (*Cirsium arvense*) O

Figure 15 Pond & ditch inside compartment D





Figure 16 Evidence for water voles in Pond and ditch number 1

A recently excavated ditch terminating in a small pond have been excavated during the last two years in order to alleviate flood risks. The pond is at an early successional phase and has been colonised by flote grass. A few seedlings of water loving trees alder and willow have begun to grow on the margins of the pond. A water vole burrow was clearly visible on the southern bank of the pond and is shown in the photographs above.



Figure 17 Location of water vole burrow

Species present in the pond inside compartment D

Aquatics

Flote grass (*Glyceria fluitans*) 15% cover

Filamentous algae 5% cover

Margins

Grey willow seedlings (*Salix cinerea*) F

Red shank (*Pericaria maculosa*) O

Curled dock (*Rumex crispus*) R

Alder seedlings (*Alnus glutinosa*) R

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
Situated on the fringes of the urban core of Rochdale, this semi rural site has a number of features that will benefit from the mandatory 10 % uplift in biodiversity. The overarching aim of this project is to provide a top sporting facility within Rochdale , while at the same time , preserving and improving the site’s biodiversity with as little disturbance or negative impact to the existing habitats. Over time, the site improvements will mature, and it is anticipated this will provide attractive habitats for larger and more diverse ecology. This will include the careful preservation of water vole habitat and an increase in the diversity of plants growing on the site. By sharing and using this management / monitoring plan as a working document, it is anticipated that the named individuals and their contractors will be able to : first carry out the principal recommendations /aims of the plan as stated above. Over the coming years, with ongoing training and experience the owners will be able to further maintain and improve the biodiversity of the site.

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 design principles were informed by the pre-existing landscape and habitats. The pre-existing pond and ditch with a 10m radius buffer zone of existing tussocky grass and trees will be retained and enhanced to benefit the existing water vole population. Pre-existing lines of trees around the car park will be enhanced by new hedge planting. The new hedges will link the rows of trees around the new car park. A new wildflower meadow (200 square metres) will be established along part of the northern boundary of the fairway using a low growing wildflower mix LW12M 80/20 from Land life. The low growing meadow species will make finding lost golf balls easier.

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 3.17 ha	C	Poor	Good	7 years	Good conditions will be measured by passing criteria A,D and E on the 5a Grassland reporting sheet	
Modified grassland	Lowland meadow 0.02 ha	A	N/A	Good	15 years	Good conditions will be measured by passing criteria A,B,C,D,E and F on the 6a Grassland reporting sheet	
Species rich hedgerow	140 metres	Car park - see plan below	Poor (an important line of trees)	Good	7 years		
Pond and ditch	100 square metres	D	Poor	Good	7 years		

Habitat and Condition Targets Further Comments



Figure 10 Habitat compartments

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

As water voles are present on the site it is vital that measures be taken to avoid any negative impacts upon this protected species as a result of the development proposals. A reasonable avoidance strategy has been adopted in relation to water voles. A 10 metre wide protective buffer zone be established around the burrow. The tussocky grassland comprising habitat compartment D is ideal habitat for water voles. For this reason this habitat should be retained and protected within a radius of 10 metres of the burrow. Any works inside this protected area should be kept to a minimum and supervised by a suitably qualified ecologist.

Terrestrial mammal survey results



Figure 2 Compartment D is an area of tussock grass with some trees and shrubs surrounding a ditch terminating in a pond. The ditch and pond were dug out to alleviate flooding approximately 18 months earlier.



Figure 3 Pond & ditch inside compartment D



Figure 4 Evidence for water voles in Pond and ditch number 1

A recently excavated ditch terminating in a small pond have been excavated during the last two years in order to alleviate flood risks. The pond is at an early successional phase and has been colonised by flote grass. A few seedlings of water loving trees alder and willow have begun to grow on the margins of the pond. A water vole burrow was clearly visible on the southern bank of the pond and is shown in Figure 4 above.

As water voles are present on the site it is vital that measures be taken to avoid any negative impacts upon this protected species as a result of the development proposals. Therefore it is recommended that a reasonable avoidance strategy be adopted in relation to water voles.

Initially a 10 metre wide protective buffer zone be established around the burrow (see Figure 5 below). The tussocky grassland comprising habitat compartment D is ideal habitat for water voles. For this reason this habitat should be retained and protected within a radius of 10 metres of the burrow. The pond and drainage ditch being used by the water voles should be retained and maintained. Any works inside this protected area should be kept to a minimum and supervised by a suitably qualified ecologist.



Figure 5 Red line showing 10 metre protective buffer zone around water vole burrow

Reasonable avoidance methodology for carrying out works near water vole habitat without a license

If it is considered essential to undertake works inside the 10 metre radius protective buffer zone:

1. The work must be necessary and unavoidable.
2. A method statement must be prepared, describing how work will be undertaken to minimise the likelihood of any offences being committed.
3. All works within 10 metres of the nearest burrow entrance must be undertaken using hand tools only unless unavoidable. In the event that work must be carried out using machines within the protective buffer zone this should be carried out under the supervision of a qualified ecologist.
4. Fires and chemicals must not be used within 20 metres of a burrow. Chemicals should be stored safely away from the sett area.
5. Disturbances, such as loud noise or vibrations, that might agitate badgers occupying a sett must be avoided or limited to areas well away from the burrow

- 6. Trees and shrubs must be felled so that they fall away from the obvious direction of a burrow and must not be uprooted but cut to ground level where necessary.
- 7. Entrances to burrows must not be obstructed or buried or excavated.
- 8. All work must be carried out as quickly and quietly as possible.

Habitat Retention Plan PM-F01



Creation, Enhancement and Management Targets and Prescriptions

Management of amenity grassland/sports turf

Compartment C – is an area of closely mown amenity grassland

The whole of Compartment C consists of a closely mown amenity grassland used for golf.



Figure 13 Compartment C

Species present in compartment C

- Meadow foxtail (*Alopecurus pratensis*) F
- Annual meadow grass (*Poa trivialis*) F
- Red fescue (*Festuca rubra*) F
- Cocksfoot grass (*Dactylus glomerata*) O
- False oat grass (*Arrhenatherum elatius*) F
- Broad leaved dock (*Obtusifolius*) O
- Daisy (*Bellis perenis*) R
- White clover F
- Black medick F
- Creeping buttercup (*Rannunculus repens*) F

- Dandelion (Taraxacum officinale) F
- Hoary plantain (Plantago media) F
- Ribwort (Plantago lanceolata)F

Management of the amenity grassland should continue as before particularly in relation to mowing. However, consideration should be given to the reduction in the use of herbicides, pesticides and artificial fertilisers wherever feasible. Such reductions in the use of chemicals could be begun on the margins of the site.

Enhancements and mitigation for water voles

A detailed terrestrial mammal survey was carried out on 1st May 2024 and upon 4 other occasions throughout May and June 2024. Evidence of water voles was found during the survey. A water vole burrow was identified on the southern bank of Pond & ditch number 1 (see Figure 20 below).



Figure Location of water vole burrow on the bank of Pond & ditch number 1

As water voles are present on the site it is vital that measures be taken to avoid any negative impacts upon this protected species as a result of the development proposals. A reasonable avoidance strategy be adopted in relation to water voles. A 10 metre wide protective buffer zone be established around the burrow. The tussocky grassland comprising habitat compartment D is ideal habitat for water voles. For this reason this habitat should be retained and protected within a radius of 10 metres of the burrow. Any works inside this protected area should be kept to a minimum and supervised by a suitably qualified ecologist.

Water Vole Reasonable Avoidance Strategy



Figure Compartment D is an area of tussock grass with some trees and shrubs surrounding a ditch terminating in a pond. The ditch and pond were dug out to alleviate flooding approximately 18 months earlier.



Figure Pond & ditch inside compartment D



Figure Evidence for water voles in Pond and ditch number 1

Initially a 10 metre wide protective buffer zone be established around the burrow. The tussocky grassland comprising habitat compartment D is ideal habitat for water voles. For this reason this habitat should be retained and protected within a radius of 10 metres of the burrow. The pond and drainage ditch being used by the water voles should be retained and maintained. Any works inside this protected area should be kept to a minimum and supervised by a suitably qualified ecologist.



Figure 5 Red line showing 10 metre protective buffer zone around water vole burrow

Reasonable avoidance methodology for carrying out works near water vole habitat without a license

If it is considered essential to undertake works inside the 10 metre radius protective buffer zone:

1. The work must be necessary and unavoidable.

- 2. A method statement must be prepared, describing how work will be undertaken to minimise the likelihood of any offences being committed.
- 3. All works within 10 metres of the nearest sett entrance must be undertaken using hand tools only unless unavoidable. In the event that work must be carried out using machines within the protective buffer zone this should be carried out under the supervision of a qualified ecologist.
- 4. Fires and chemicals must not be used within 20 metres of a burrow Chemicals should be stored safely away from the sett area.
- 5. Disturbances, such as loud noise or vibrations, that might agitate badgers occupying a sett must be avoided or limited to areas well away from the burrow
- 6. Trees and shrubs must be felled so that they fall away from the obvious direction of a burrow and must not be uprooted but cut to ground level where necessary.
- 7. Entrances to burrows must not be obstructed or buried or excavated.
- 8. All work must be carried out as quickly and quietly as possible.

The protected water vole habitat is contained within Compartment D

Compartment D is an area of tussock grass with some trees and shrubs surrounding a ditch terminating in a pond. The ditch and pond were dug out to alleviate flooding approximately 18 months earlier. 100 square metres of this habitat will be retained and protected as water vole habitat as a part of the development plan.

Species in compartment D

- Meadow foxtail (*Alopecurus pratensis*) F
- Annual meadow grass (*Poa trivialis*) F
- Red fescue (*Festuca rubra*) F
- Cocksfoot grass (*Dactylus glomerata*) O
- False oat grass (*Arrhenatherum elatius*) F
- Broad leaved dock (*Obtusifolius*) O
- Daisy (*Bellis perenis*) R
- Creeping buttercup (*Rannunculus repens*) F
- Dandelion (*Taraxacum officinale*) F
- Hoary plantain (*Plantago media*) F
- Ribwort (*Plantago lanceolata*) F
- Hawthorn (*Crataegus monogyna*) R
- Beech (*Fagus sylvatica*) O
- Bramble (*Rubus fruticosus*) O
- Alder (*Alnus glutinosa*) R
- Cleavers (*Gallium aparine*) O

Rosebay willowherb *Chamaenerion angustifolium*) O

Spear thistle (*Cirsium vulgare*) O

Creeping thistle (*Cirsium arvense*) O

A ditch terminating in a small pond have been excavated during the last two years in order to alleviate flood risks. The pond is at an early successional phase and has been colonised by flote grass. A few seedlings of water loving trees alder and willow have begun to grow on the margins of the pond. A water vole burrow was clearly visible on the southern bank of the pond.

Species present in the pond inside compartment D

Aquatics

Flote grass (*Glyceria fluitans*) 15% cover

Filamentous algae 5% cover

Margins

Grey willow seedlings (*Salix cinerea*) F

Red shank (*Pericaria maculosa*) O

Curled dock (*Rumex crispus*) R

Alder seedlings (*Alnus glutinosa*) R

Ongoing management of the protected water vole habitat

- 1/ The 100 square metres of tussocky grassland with the pond and ditch at the centre are to be retained and protected as water vole habitat as a part of the development plan. The proposed management is to be light touch and very limited.
- 2/ The grassland should be mowed once every two years using a mower with blades set to a height of 15cm (approx). This will prevent colonisation by tree and shrub species whilst allowing the tussocky grass structure to persist.
- 3/ Tree and shrub species should be removed from the banks of the pond and dich. Water voles prefer grassy banks.
- 4/ Persistent and injurious weed species such as ragwort should be spot treated using a suitable herbicide if they become numerous or unsightly (do not use herbicides in or close to the water).

Hedgerow creation/enhancement

The 140 metre length of existing gappy hedgerows with trees along the boundaries of the car park will be enhanced by additional planting to create a native species rich hedgerow (UKHab h2a) in good ecological condition. This will support a wide range of species, including breeding birds, amphibians, foraging bats, invertebrate species and other small mammals.

Good horticultural practices should be employed to ensure no, or minimal, use of pesticides and herbicides. Where possible landscape planting within the proposed development area should aspire to consist of at least 50% of native or otherwise beneficial species preferably of UK provenance. A beneficial species is one which though not native is not invasive or harmful; and also provides significant ecological resources to native species, such as nectar, fruit, berries, nesting opportunities or cover amongst others. This will contribute to local Biodiversity Action Plan goals. Beneficial species include non-native species which are not invasive and provide significant wildlife opportunities such as nectar berries, cover or nesting opportunities.

Hedgerow specification

Areas of hedgerow to be restored should use typical native species of local provenance. The following list of species and the percentage mix are typical of hedgerows found in Greater Manchester. Planting should contain a mix of 5 or more the following species, with a predominance (40% +) of hawthorn (*Crataegus monogyna*) and or blackthorn (*Prunus spinosa*).

1/ Tree and shrub species must include Hawthorn and or Blackthorn (40% +) with at least 4 of the additional species below adding up to 100%;

Beech spp (5% +) *Fagus sylvatica* and varieties

Hornbeam (5% +) *Carpinus betulinus*

Climbing roses (5% +) *Rosa* species

Rowan (5% +) *Sorbus aucuparia*

Holly (10% +) *Ilex aquifolium*

Hazel (10% +) *Corylus avellana*

Guelder rose (5% +) *Viburnum* species

Dogwoods (10% +) *Cornus* species

Barberry (5% +) *Berberis* species

2/ All hedgerow planting shall be carried out in accordance with BS4428:1989 code of practice for general landscape operations (excluding hard surfaces). Hedgerow plants shall either be notch or trench planted into uncompacted soil, free of vegetation. Hedge trenches shall be dug to a minimum depth of 400mm and width of 600mm, with the plants put into the ground at the same depth at which they had been previously grown in the nursery. All plants shall be well heeled in after planting. Hedging plants to be supplied as bare-root specimens. All plant roots shall be kept under a moist cloth or in a bucket of water during planting. Plants not planted on day receipt are to be heeled in in a pre-prepared trench and kept moist until plants are required. Hedges should only be planted between November and March, while plants are still dormant. Avoid planting in very cold or wet weather. All plants to be feathered whips 1.25 to 1.50 m high, to be planted at 0.3 m spacing in a double row at 0.4 m apart.

3/ The following species can be planted in the hedge bases at a rate of 2 to 4 plants per metre of hedge to further improve diversity. At least 5 of the species below should be included in the scheme.

Bluebell (UK variant) *Hyacinthoides non-scripta*

- Honeysuckle *Lonicera periclymenum* or other suitable *Lonicera* species
- Red campion *Silene dioica* and or White campion *Silene alba*
- Ramsoms (wild garlic) *Allium ursinum*
- Wood anemone *Anemone nemorosa*
- Primrose *Primula vulgaris* or other primulas
- Wood avens *Geum urbanum*
- Common dog-violet *Viola riviniana* or other pansies
- Herb Robert or other geranium species
- Ivy/*Hedera* species (preferably *Hedera helix*)
- Tutsan species or other *Hypericum* species

The new hedgerow will be located along the boundary of the car park(s). The hedgerow can either be instead of a boundary fence or in addition to a boundary fence, whichever is deemed more appropriate. It is proposed that approximately 140 m of trees with some gappy species-poor hedgerow be replaced by 140 m of species rich hedgerow with trees (6 plus species).

The aim is to create habitats that are an improvement on the existing habitats. These will be suitable to support a wide range of species, including breeding birds, amphibians, foraging bats, invertebrate species and other small mammals.

Establishment and Management of Hedgerows

- 1/ Preparation of the ground for new hedgerow shrubs and trees is important to ensure the health and long-term success of the hedgerow:
- 2/ Remove existing ground vegetation
- Dig over the soil · ensure newly planted hedgerows are protected from trampling by people and machinery by using fencing
- 3/ Use mulch around and between the base of new plants to prevent growth of competitive grasses. Planting whips:
- 4/ Hedgerow whips should be planted in a double staggered row 30-40cm apart, with the two rows 50cm apart. There should be approximately 7 plants per meter.
- 5/ Planting season is from mid-November-mid-March.

Hedgerow Aftercare

- 1/Suppression of weed growth may be required to prevent smothering of the new hedgerow plants.
- 2/It may be necessary to interplant the hedgerow the following season if some plants have not taken.
- 3/During the second and third years dead or failed plants should be replaced using new whips in the gaps.
- 4/For the first three years the hedgerow should be trimmed back to encourage low lateral growth of branches.
- 5/Growth of the hedgerow should be trimmed back by 50% after the first 3 years.

7/Pruning should take place in autumn to avoid bird-nesting season unless it is evident (for example when plants are young) that no birds are nesting or if a nesting bird check has been undertaken by a suitably qualified individual.

Once established hedgerows should ideally be pruned on each side in alternative years to allow growth and protection for wildlife. The top of the hedgerow can be trimmed annually.

Lowland meadow creation

[illegible]

1/This will be achieved by stripping the turf using a digger bucket. A thin 8cm or less dressing of a topsoil-and-sand mix may then be applied. A treatment with a systemic herbicide should be applied after six weeks and again after six months, to help prevent colonisation by undesirable species such as dock, ragwort and creeping thistle.

2/During the Autumn of the first year or Spring of the second year the seed will be sown directly on to the soil, which will have been previously harrowed.

3/The specified seed mix is Landlife’s Low Growing Wildflower Seeds LW12M 80/20

This mix contains 80% grasses and 20% low growing wildflowers (making it easier to find lost golf balls). The sowing rate will be 5 grams per square metre (1Kg of seeds covers 200square metres).

	Common Name	Latin Name	Quantity	Flowers	Height	Type
1	Bedstraw, Lady's	Galium verum	1.5%	Jun - Sep	50 - 80cm	Perennial
2	Black Medick	Medicago lupulina	1.2%	May - Oct	15 - 80cm	Annual
3	Burnet, Salad	Sanguisorba minor	2%	Jun - Sep	15 - 50cm	Perennial
4	Campion, Bladder	Silene vulgaris	0.8%	May - Sep	25 - 60cm	Perennial
5	Carrot, Wild	Daucus carota	1%	Jun - Oct	30 - 100cm	Perennial
6	Cat's-ear, Common	Hypochaeris radicata	0.8%	Jun - Oct	15 - 50cm	Perennial
7	Cornflower	Centaurea cyanus	2%	Jun - Oct	20 - 80cm	Annual
8	Cowslip	Primula veris	0.4%	Apr - May	15 - 30cm	Perennial
9	Forget-me-not, Field	Myosotis arvensis	1%	May - Jul	20 - 40cm	Annual
10	Hawkbit, Autumn	Leontodon autumnalis	1.2%	Aug - Oct	15 - 20cm	Perennial
11	Hawkbit, Rough	Leontodon hispidus	1.3%	Jun - Oct	15 - 35cm	Perennial
12	Plantain, Hoary	Plantago media	0.8%	May - Sep	15 - 45cm	Perennial
13	Ragged Robin	Lychnis flos-cuculi	0.2%	May - Aug	30 - 90cm	Perennial
14	Self-heal	Prunella vulgaris	1%	Jun - Sep	15 - 30cm	Perennial
15	Sorrel, Sheep's	Rumex acetosella	0.4%	May - Jul	20 - 40cm	Perennial
16	Toadflax, Common	Linaria vulgaris	0.2%	Jun - Oct	30 - 90cm	Perennial
17	Trefoil, Bird's-foot	Lotus corniculatus	1%	Jun - Aug	10 - 40cm	Perennial
18	Vetch, Kidney	Anthyllis vulneraria	1%	May - Oct	15 - 50cm	Perennial
19	Yarrow	Achillea millefolium	0.2%	Jun - Oct	20 - 100cm	Perennial
20	Yellow-rattle	Rhinanthus minor	2%	Jun - Sep	25 - 50cm	Annual
	Bent, Common	Agrostis castellana	4%		50 - 100cm	Grass
	Bent, Creeping	Agrostis stolonifera	4%		40 - 100cm	Grass
	Crested Dogstail	Cynosurus cristatus	34%		30 - 60cm	Grass
	Fescue, Sheeps	Festuca ovina	20%		15 - 50cm	Grass
	Meadow Grass, Smooth Stalked	Poa pratensis	8%		30 - 90cm	Grass
	Timothy, Small Leaved	Phleum pratense ssp Bertolinii	10%		50 - 100cm	Grass

4/Sowing should take place between August-October or March-mid May.

5/In the first year of establishment the sward should be cut to 50mm whenever a height of 100mm is reached. The arisings should be removed.

For years 2-5 following sowing, a weed-wipe is to be used to treat any invasive weed species (e.g. broad-leaved and curled docks, thistles, etc.).

6/A single cut to a height of 50-70mm is usually adequate, in the summer (between late July and August, after yellow-rattle has set seed).

7/ The seed mix contains yellow rattle (*Rhinanthus minor*), an attractive annual which is a hemi-parasite on grass species as part of the on-going grassland management. This species is helpful as it reduces the vigour of grasses, allowing sensitive flowering herb species - which would normally be swamped - to grow and spread.

8/ The resulting meadow will be a slightly smaller but far more diverse and sustainable replacement for the temporary cornfield annual habitat. It will have several distinct advantages: it is sustainable and easy to manage, requiring only a biennial cut, with a swipe in late summer (late July to early August); cutting once every two years will reduce the potential impact on amphibians whilst still preventing woody species from becoming established. The cut vegetation should be removed from the site and disposed of either for composting or as hay. This meadow containing native local species will also be aesthetically pleasing and will attract an even more diverse mix of invertebrate species than the cornfield annuals, providing even greater foraging opportunities for bat and bird species. Over time this habitat should improve still further as additional wildflower species colonise naturally.

9/ The aim is to create a habitat which is an improvement on the existing habitat. This will be suitable to support a wide range of species, including breeding birds, foraging bats, invertebrate species, and small mammals.

Enhancements for bats

A detailed bat scoping survey was carried out on 1st May 2024. No direct or indirect evidence for bat roosts was found in the buildings or the loft space. The buildings are considered unsuitable for bat roosts. There are no trees on the site with bat roost potential. Many trees on the land adjacent to the site do have significant bat roost potential. The site does provide significant foraging potential. Common pipistrelle have been observed on four evenings during May foraging at the site. These were identified using a Batbox 3 bat detector.

Under the National Planning Policy Framework (2021) there is a requirement to provide features in proposed developments that promote biodiversity and habitat enhancements. The proposal would have no significant impact on any bat roosts or foraging and commuting routes.

As the site has been observed to be used by foraging bats it recommended that the lighting scheme be designed in order to reduce any potential impact bats. Any lighting installed on or around the new structures is low-pressure or high- pressure sodium with glass glazing, or alternatively LED. This will reduce the UV output, which attracts insects. Lighting should be directional, installed with baffles if possible and should be directed to avoid light shine on boundary trees and vegetation. Roads or trackways in areas important for foraging bats should contain stretches left unlit to avoid isolation of bat colonies. These unlit stretches should be 10 metres in length either side of commuting route.

It is further recommended; that new roosting opportunities for bats be provided at the site as part of the proposals. A total of 3 suitable bat roost boxes should be attached onto the building as high up as possible facing east.



Figure 18 Suitable bat boxes would include the Schwegler 1FF Flat bat box

Installation and Maintenance of bird and bat boxes

- 1/Installation of the bird and bat boxes will take place at the completion of the building construction works to minimise the risk of disturbance to nesting birds.
- 2/Bat boxes do not need to be maintained. The Schwegler bat access panels are durable and self-cleaning.
- 3/Bird boxes should ideally be cleaned out once per year in the Autumn following bird nesting season (the bird nesting season is from March to August inclusive).

High Nets Ecological Monitoring Strategy

Ecological mitigation is proposed in relation to monitoring and in the unlikely event that it is found birds/bats have flown into the netting additional measures have been identified. The suggested mitigation is to weave lengths of light and colourful nylon rope or 'orchard tape' through the netting in horizontal bands. The colour will make the netting more visible to birds reducing the risk of collisions without harming the integrity of the netting itself. The rope and ring arrangements generally used on power lines would be too heavy and present a stability problem to the lightly or un-tensioned netting in this instance. The use of light 'orchard tape' or coloured nylon rope is an innovative method often used in Australia to conserve native birds in similar scenarios.

It is suggested that monitoring be carried out on a daily basis. A member of staff should walk the length of the netting each morning before opening time to check for any bird casualties at the base of the netting or caught in the netting. In the event of any casualties being found advice should be sought immediately from the nominated ecologist. Spot checks made by an ecologist including early morning and evening surveys to observe bird movements from a suitable vantage point should be carried out at least once per month for six months. If no issues are identified during this period the checks could be then be discontinued. If issues have been identified other solutions should be considered in consultation with GMEU.

Enhancements for birds

A survey of singing was carried out on the 1st May 2024. No active nests were observed but a limited amount of singing was recorded at the eastern boundary of the site. The following species were observed or heard singing in the woodland on the motorway slip-road embankment and in the adjoining scrub woodland at the southern end of the site; robin and wren. No birds were observed on the amenity grassland portion of the site itself although swallows were observed foraging high above the site.

Swallows were observed foraging high above the site on the day of the survey. Swallows are listed as a Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006), they are UK BAP Priority Species. Swallows are listed in the RSPB’s Red List of ‘Birds of Conservation Concern 3’ (2009).

In order to provide new nesting opportunities for swallows at the site, it is recommended that 6 swallow nest boxes be fitted on the rear wall immediately under the open roof of the driving range structure. The above enhancement would facilitate the aims and objectives of the UK BAP Species Action Plan for House Sparrows.



Figure 19 - 6 X swallow nest boxes the Schwegler 10 Swallow nest is a good example but many others are available

Note on breeding birds and vegetation clearance

It is strictly illegal in the UK to take, damage or destroy the nest of any wild bird while it is being built or in use. Therefore prior to any vegetation clearance or tree felling operation during the nesting bird season [March to August inclusive] trees and dense brush should be carefully inspected for any active nests. If an active nest is identified this area should be left undisturbed until nesting activity has finished. It is an offence to disturb any nesting bird or its nest. It is recommended that if vegetation clearance operations are scheduled to take place during the nesting bird season then a breeding bird survey should first be undertaken by a suitably qualified person in order to assess any potential impacts and inform future action. If active nests are found an exclusion area should be established around the nest in order to ensure that birds are not disturbed until nesting activity has ceased.

Installation and Maintenance of bird and bat boxes

- 1/Installation of the bird and bat boxes will take place at the completion of the building construction works to minimise the risk of disturbance to nesting birds.
- 2/Bat boxes do not need to be maintained. The Schwegler bat access panels are durable and self-cleaning.
- 3/Bird boxes should ideally be cleaned out once per year in the Autumn following bird nesting season (the bird nesting season is from March to August inclusive).

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:						
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A	There are 6-8 vascular plant species per m² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	Yes	Compartment C – closely mown amenity grassland or sports turf – UKhab g4	Already present N/A	Reduced use of chemical fertilisers, herbicides and pesticides.	Reduced use of chemical fertilisers, herbicides and pesticides. This approach will be especially targeted at the margins of the site and along fence lines.
B	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Yes	Compartment C – closely mown amenity grassland or sports turf – UKhab g4	Already present N/A	Re-sowing bare patches with a suitable grass and low growing herb mix.	Regular monitoring by ground staff and resowing as required.
C	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).	Yes	Compartment C – closely mown amenity grassland or sports turf – UKhab g4	Already present N/A	Reduced use of chemical fertilisers, herbicides and pesticides.	Regular monitoring by ground staff for invasive and or injurious plant species. These should be spot treated using suitable herbicides as and when required during the growing season.

Additional Management Prescriptions (GL-B01)
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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 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:						
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.	Yes	Compartment D – tussocky grassland – UKhab g4	Already present N/A	No use of chemical fertilisers, herbicides and pesticides other than spot treating of invasive species or injurious weeds.	Mowing using blades set at 15cm high (approx) once every two years during the Summer to prevent colonisation by trees and shrubs.
B	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).	Yes	Compartment D – tussocky grassland– UKhab g4	Already present N/A	No use of chemical fertilisers, herbicides and pesticides other than spot treating of invasive species or injurious weeds.	Regular monitoring by ground staff for invasive and or injurious plant species. These should be spot treated using suitable herbicides as and when required during the growing season.

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 (High 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:						
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A	There are 9+ vascular plant species per m ² present, including at least 5 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	Yes	Compartment A + C – species rich lowland meadow UKhab g3a	1/This will be achieved by stripping the turf using a digger bucket. A thin 8cm or less dressing of a topsoil-and-sand mix may then be applied. A treatment with a systemic herbicide should be applied after six weeks and again after six months, to help prevent colonisation by undesirable species such as dock, ragwort and creeping thistle. 2/During the Autumn of the first year or Spring of the second year the seed will be sown directly on to the soil, which will have been previously harrowed. 3/The specified seed mix is Landlife’s Low Growing Wildflower Seeds LW12M 80/20 This mix contains 80% grasses and 20% low growing wildflowers (making it easier to find lost golf balls). The sowing rate will be 5 grams per square	N/A	4/Sowing should take place between August-October or March-mid May. 5/In the first year of establishment the sward should be cut to 50mm whenever a height of 100mm is reached. The arisings should be removed. For years 2-5 following sowing, a weed-wipe is to be used to treat any invasive weed species (e.g. broad-leaved and curled docks, thistles, etc.). 6/A single cut to a height of 50-70mm is usually adequate, in the summer (between late July and August, after yellow-rattle has set seed). 7/ The seed mix contains yellow rattle (<i>Rhinanthus minor</i>), an attractive annual which is a hemi-parasite on grass species as part of the on-going grassland management. This species is helpful as it reduces the vigour of grasses, allowing sensitive flowering

				metre (1Kg of seeds covers 200square metres).		herb species - which would normally be swamped - to grow and spread.
B	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Yes	Compartment A + C – species rich lowland meadow UKhab g3a	Already present N/A	Re-sowing bare patches with a suitable grass and low growing herb mix.	Regular monitoring by ground staff and resowing as required.
G	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).	Yes	Compartment A + C – species rich lowland meadow UKhab g3a	Already present N/A	No use of chemical fertilisers, herbicides and pesticides other than spot treating of invasive species or injurious weeds.	Regular monitoring by ground staff for invasive and or injurious plant species. These should be spot treated using suitable herbicides as and when required during the growing season.

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.

Ditch

Creation, Enhancement and Management Summary (DI-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 4. Ditch

Target Habitat:						

A	A range of emergent, submerged and floating leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.	Yes	Pond and ditch within Compartment D – tussocky grassland – UKhab g4	N/A	Additional floating and marginal plant species will be introduced from a nearby pond.	Further plants will be added if required. Excess plants will be removed by hand during the Autumn by the grounds staff.
C	There is less than 10% cover of filamentous algae and or duckweed <i>Lemna</i> spp. (these are signs of eutrophication).	Yes	Pond and ditch within Compartment D – tussocky grassland – UKhab g4	N/A	This is not an issue currently.	If duckweed or blanket weed become a problem in the future these species will be removed by hand by the grounds management staff.
D	A fringe of marginal vegetation is present along more than 50% of the pond.	Yes	Pond and ditch within Compartment D – tussocky grassland – UKhab g4	N/A	This will be allowed to develop naturally after the new plants have been added.	This is unlikely to be a problem . More likely is an excess of marginal species particularly iris and reedmace. Excess vegetation especially emergent species should be removed either by hand or using a mini-digger.
E	Less than 10% of the ditch is heavily shaded.	Yes	Pond and ditch within Compartment D – tussocky grassland – UKhab g4	N/a	This is not currently an issue.	If this becomes an issue marginal trees and shrubs should be removed or pruned as required.

Additional Management Prescriptions (DI-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.

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
02/01/2025	Lowland meadow creation 200 square metres	Failure of meadow seeds to germinate	20% + of meadow is bare of flowering herb species	Re-sow bare patches with a suitably diverse seed mix
02/01/2025	Close mown sports turf enhancement 2.8 ha	Failure of new species to colonise or for bare patches to form	10% of turf becomes bare or target number of species in the sward is not achieved	Re-sow bare patches with a suitably diverse seed mix
02/01/2025	Species rich hedgerow creation 140 m	Failure of newly planted shrubs to establish	10% of targeted number of newly planted shrubs found to be dead during years 1-10.	Undertake a second round of planting, replacing failed specimens on a like-for-like basis
03/01/2025	Pond and ditch	Excess marginal vegetation	More than 50% of margins of pond and ditch are colonised by marginal and emergent vegetation.	This is unlikely to be a problem . More likely is an excess of marginal species particularly iris and reedmace. Excess vegetation especially emergent species should be removed either by hand or using a mini-digger

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)

Provide details of methods that will be used to compare the baseline habitat with the proposed retention, creation or enhancement measures. For example, this may include before-and-after photos, before-and-after surveys and species lists, etc.

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
Example: Other neutral grassland	To be undertaken on parcels 1, 3, 5 and 8. Undertake quadrat sampling to identify the habitat type that is establishing and then number of species per m ² . Estimate percentage of bare ground, bramble and bracken cover. Collect a botanical species list across grassland to check against target species list	Annually from years 1-5, then every 5 years. Surveys to be completed between May and August

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
Improve My Golf Ltd.	Rochdale LPA

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	September	September or October	Report on results of initial grassland and scrub creation measures.

Adaptive Management

Summary of Adaptive Management Approaches (MS-B02)

Use this box to summarise how you plan to incorporate adaptive management. Consider the risks in section [PM-T02](#) above. The aim is to have a feedback loop between monitoring, then reporting, and how any proposed changes are subsequently reflected in this plan.

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 inform necessary management changes to promote achieving BNG targets stated in the statutory biodiversity metric and HMMP. The monitoring can pick up any unexpected, external influences. Some examples are dealing with a new plant disease, an invasive species that is thriving due to climate change, or changes to site access due to site flooding.

Observations and notes from day-to-day management are important for delivering adaptive management. Consider how this information will be captured and fed into changes in management prescriptions, then through to subsequent monitoring reports.

Regular robust monitoring, and reporting to the responsible authority, should identify issues early on. Then you can make conscious decisions to implement effective actions. If the BNG objectives are affected by external factors, it is important to agree decisions on changes to the management prescriptions and targets with the responsible authority. Following the review, record any changes in this management plan and schedule.