



Biodiversity Management Plan

**Dorothy Hyman Sports
Centre**

McArdle Sports Tec

Report Reference:	Biodiversity Management Plan Dorothy Hyman Sports Centre
Report Reference:	ER-7498-03
Written by:	Joanna Bertwistle BSc (Hons) ACIEEM Ecologist
Technical review:	Micah Duckworth BA MSc MCIEEM CSJK Biodiversity Manager
Approved for issue:	Micah Duckworth BA MSc MCIEEM CSJK Biodiversity Manager
Date:	20.05.2024

Introduction

This Site has been subject to baseline studies which have informed the layout, demonstrating its engagement with the 'mitigation hierarchy'. Design concepts have been drawn up that allow the scheme to deliver Biodiversity Units through habitat creation and management of new and retained habitat features. This Plan is the final biodiversity delivery document, and shows how retained and created habitats can attain the condition scores that were predicted in the Biodiversity Net Gain Assessment.

In addition to meeting habitat condition objectives, this Plan presents additional measures to enhance the value of the Site for fauna.

The Plan is produced in accordance with Chapter 11 of British Standard 42020. 'Biodiversity Management Plans' (BMPs) are reports which set out how wildlife interests will be enhanced, restored and maintained; a term referenced in BS42020 Clause D.4.5.

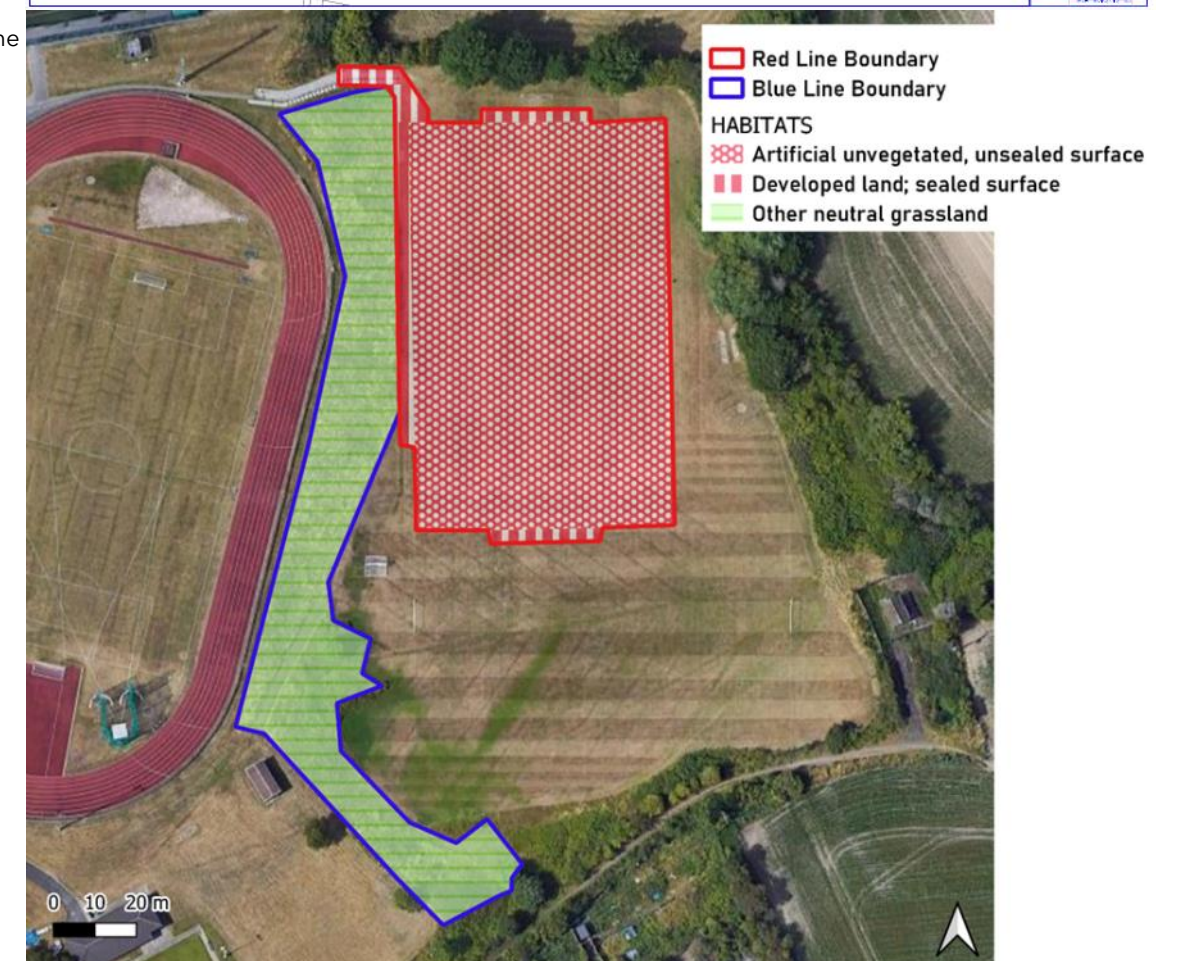
In producing this Plan the following sources have been referred to:

- Preliminary Ecological Appraisal, Brooks Ecological (ER-7498-01).
- Biodiversity Net Gain Assessment, Brooks Ecological (ER-7498-02).
- Location and Block Plan, McArdle Sports Tec (MCA-MUK3149-03), 22.02.2024).

Figure 1. Landscape Plan



Figure 2. Extent of Red Line and Blue Line land



Aims

The aim of this Plan is to maximise delivery of the wildlife potential and condition of habitats on-Site, creating areas of robust semi-natural landscape and provide enhancements which benefit invertebrates, mammals, birds and reptiles.

Objectives

The following sections of the Plan detail management objectives relevant to each habitat or ecological feature, as appropriate. These include management options and monitoring to ensure features achieve their target objectives and habitat conditions over the course of the management period. The final layout has been assessed under the Statutory Metric, showing how the proposed development can deliver 0.52 Habitat Units. An overall work schedule is provided to summarise annual works, monitoring and reporting to the LPA.

Scope of Plan

This Plan relates to the development as contained within the Red Line Boundary illustrated in Figure 2. After the initial BNG calculations, through communications with the client and landowner, it was agreed some habitat would be registered as a Biodiversity Gain Site (Blue Line land), shown in Figure 2.

Delivering the Plan

The Developer is responsible for the creation and establishment works for a thirty-year period.

The Developer will appoint either a Specialist Ecological Management Company (SEMC) or a company working under the direction of an Ecological Clerk of Works (ECoW) to oversee the delivery of this Plan.

The ECoW would be a qualified Ecologist and member of the Chartered Institute of Ecology and Environmental Management, or be otherwise approved by the LPA.

Following the construction phase, this Plan will be the responsibility of a Site Management Company whence it will be implemented for the duration of the plan.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.52
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	34.29%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Figure 2. Biodiversity Unit summary from Biodiversity Net Gain Assessment

Other Neutral Grassland

Rationale

Creating functional yet flower rich neutral grassland to attract invertebrates and pollinators.

Objectives

Habitat: Other Neutral Grassland. Reaching a DEFRA condition score of **Moderate** by Year 10.

Specification

Preparation No more than 5cm of topsoil will be spread over the subsoil profile. This will be loose tipped and spread with back actor to avoid compaction, and harrowed to a fine tilth ready for seeding. Due to steep slopes of the area, the use of machinery may not be possible and spreading and harrowing may have to be done by hand tools.

Seeding Seed with Emorsgate EM1 according to supplier’s instructions. If soils have been spread before September, any weed growth that has established in the meantime will be sprayed off with glyphosate and a seedbed be re-prepared. Seed will be broadcast by hand. Following seeding, the area will be lightly rolled to incorporate the seed with the growing substrate.

Management

Year 1 Five cuts, collect arisings and remove from Site. Use a weed wipe three times in Year 1 to kill off weeds—spear thistle, creeping thistle, broad-leaved dock, clustered dock, wood dock, curled dock, nettle, ragwort, and others according to ECoW recommendations. Operatives must be proven competent in identifying.

Years 2 onwards Cut once per month during the growing season, leave for 5 weeks in June. Arisings may be left to rot *in-situ* unless condition is deteriorating.

Monitoring

ECoW to conduct monitoring visit in Year 2 to record relative cover values according to Objectives 1-4.

Output ECoW report.

Remedial action options

- Localized weed control or over sowing with wildflower seed.
- Periodic collection of arisings under the instructions of the ECoW.

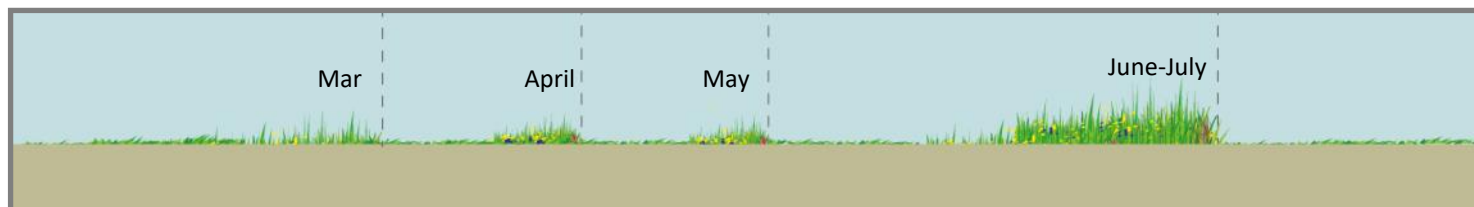


Figure 3 extent of other neutral grassland creation

	Condition Assessment Criteria Grassland habitat type	Targeted?
1	The parcel represents a good example of its habitat	Yes
2	Varied sward height	Yes
3	Cover of bare ground is between 1% and 5%	Yes
4	Cover of bracken is less than 20% and cover of scrub is less than 5%	Yes
5	Cover of suboptimal species less than 5%	No
6	There are 10 or more vascular plant species per m2	No

Nesting Boxes for Birds

Rationale

Ready made roosting boxes will be incorporated into mature trees along the eastern border of the Site to provide shelter and breeding sites of birds.



Tree mounted boxes

Specification

1B-Schwegler- nest box
Or equivalent approved by the Ecological Clerk of Works

Location Notes

House sparrow boxes will be positioned as high up on trees as possible. South-facing elevations will be avoided, with boxes fixed to north, northeast or northwest facing aspects.

Number 2
When erected? Following soft landscaping



Figure 4 Location of proposed bird boxes

Note all locations and specifications may be varied under agreement with ECoW

Roosting Boxes for Bats

Rationale

Ready made roosting boxes will be incorporated into mature trees walls to provide shelter and breeding sites of declining bats.



Tree Mounted Bat boxes

Specification
Kent Bat Box <https://www.nhbs.com/nhbs-kent-bat-box>
Or equivalent approved by an Ecologist

Location Notes
Located in trees according to the ECoW instructions at minimum of 4m with clear flight-lines and providing a range of orientation.

Note - we specify these boxes rather than Schwegler 2FF as we find these to be more successful for bats and less attractive to nesting birds.

Number 2
When erected? During construction



Figure 5 Location of proposed bat boxes

Note all locations and specifications may be varied under agreement with ECoW

Timeline

Task	ECoW to direct	ECoW to carry out	Year 1	Year 2	Year 3	Year 4	Year 5	6+	10	20	30
Seeding and planting of new flowering lawn			September–November	September–November							
Manage wildflower grassland (mowing)	Yes (in Year 1-2)			April-Sept	April-Sept	April-Sept	April-Sept	April-Sept			
Erect bat and bird boxes			As built	As built							
ECoW verification faunal boxes			As built	As built							
ECoW Monitoring		Yes	Yes Report to LPA		Yes Report to LPA		Yes Report to LPA		Yes Report to LPA	Yes Report to LPA	Yes Report to LPA