

Landscape and Ecological Management Plan

SITE LOCATION

Woodland South of Hollingworth
Lake – High Ropes

ISSUE DATE

08 October 2024

OUR REFERENCE

241008 1340 LEMP V1 FINAL ISSUE

PREPARED FOR

Rochdale Borough Council

PRINCIPAL AUTHOR

Laura Carter





Quality Assurance

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Landscape and Ecological Management Plan

VERSION: V1 DATE: October 2024

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Summary

Site	Woodland South of Hollingworth Lake, High Ropes Site National Grid reference: SD 93762 14689
Purpose and brief	Landscape and Ecological Management Plan Commissioned by Rochdale Borough Council
Development proposals	The Proposed Development comprises the construction of a high ropes course within a woodland clearing to the south of Hollingworth Lake.
Scope of the LEMP	This LEMP applies to the whole development as detailed above.
Habitat Creation Specification	Features that will be retained and enhanced are: • Other neutral grassland • Woodland
Management Measures	Management measures are provided for all retained habitats and new planting to ensure successful establishment and longevity.
Monitoring Requirements	All habitats at the Site will be monitored annually for 10 years to ensure that management is being undertaken in accordance with this LEMP. After 10 years the LEMP will be reviewed and amended, as necessary and management continued until year 30 as described or appropriately amended. The long-term management and monitoring at the Site are required for a minimum of 30 years. Any remedial measures required to achieve the aim of ensuring the landscaped areas have joint value for biodiversity, visual amenity and screening, will be provided to the Local Planning Authority (LPA) in writing. This will include replacement planting and any actions which deviate from this management plan within the initial ten years.



1. Introduction/Background

1.1 The Principal Author

- 1.1.1 The Principal Author of this report is Laura Carter BSc (*Hons*), (Head of Ecology). The Principal Author has over six years of professional experience in ecological consultancy and has worked on projects ranging in scale including commercial and residential sites. The Principal Author currently holds a Level 2 class survey licence from Natural England for bats (*Chiroptera* spp.) and a Level 1 class survey licence for great crested newts (*Triturus cristatus*), and is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM); she is therefore subject to CIEEM's Code of Professional Conduct.

1.2 Purpose and Brief

- 1.2.1 Wharton Natural Infrastructure Consultants Ltd (Wharton) have been commissioned by Rochdale Borough Council (the Applicant) to produce a Landscape and Ecological Management Plan (LEMP) in relation to the land at Hollingworth Lake (see land within the red line boundary on Appendices 1 and 2), known herein as 'the Site'.
- 1.2.2 The decision document (application ref: 23/01330/FUL) has been reviewed and this document is provided pursuant to the discharge of Condition 8 which states:
- 'No above ground works shall take place until a detailed Habitat and Landscape Creation and Management Plan has been submitted and approved in writing. For the avoidance of doubt, this shall include details of compensation for lost habitat and also provide new tree and hedgerow planting between the development site and the Lake Shore and a scheme for the timing/phasing of implementation works. The development shall thereafter be completed in accordance with the approved plan and be retained thereafter.'*

1.3 Description of Site and Local Area

- 1.3.1 The Site is located to the south of Hollingworth Lake and west of Rakewood Road in Littleborough. It is centred approximately at National Grid reference SD 93762 14689.
- 1.3.2 The Site comprised an area of broad-leaved woodland with dense canopy cover, with an area of other neutral grassland present in a clearing. Public footpaths and Hollingworth lake were present to the east and north of the Site at c35m and c100m respectively. The Site is bordered to the south by woodland and further areas of grassland with access roads and footpaths.
- 1.3.3 Land use in the immediate and wider areas is a mix of residential and commercial land use. The Site is relatively well connected from an ecological perspective due to grassland and woodland throughout the local area.
- 1.3.4 Wildlife corridors are present in the local area, such as the River Roch c.1km northwest of the Site. There is good ecological connectivity to/from the Site. The woodland at the Site contributes to peripheral connectivity around Hollingworth Lake, however, the Site itself does not contribute to the functionality of the wildlife corridors.

1.4 The Proposed Development

- 1.4.1 The Proposed Development comprises the installation of a high net and lower ground activity course including a timber framed shelter, a storage container, and 2.4m high boundary fencing and gates.
- 1.4.2 The proposals detailed above will be referred to throughout this report as the 'Proposed Development'.



1.5 Scope of the LEMP

- 1.5.1 This LEMP applies to the whole scheme, as detailed above.
- 1.5.2 This LEMP details management measures up to and including Year 30. Management beyond the 10-year period is likely subject to a wide range of factors including (but not limited to) climate change, change in Site conditions and use of the Site by occupants. As such, management of the Site will be reviewed after Year 10 to take these factors into consideration, as well as to allow the potential for management with new management practices based on recent research to be developed.

1.6 Roles and Responsibilities

- 1.6.1 The Applicant or their appointed third-party contractor will be responsible for the implementation of the methods detailed within this document. The appointed contractor is yet to be confirmed; however, they will be referred to in this document as 'the Appointed Contractor'.
- 1.6.2 Where the Site Manager, is referred to within this report, who is responsible for ensuring the implementation of the LEMP is:
Name:
Mob:
Email:
- 1.6.3 Where an Ecological Clerk of Works (ECoW) is referred to within this report, the ECoW is Laura Carter. The contact details for the ECoW are provided below:
Name: Laura Carter
Mobile: 07508410880
Email: laura@wnic.co.uk
- 1.6.4 Should the Site Manager or ECoW not be available to undertake the respective works, alternative named contacts must be provided by the Client and/or Wharton Natural Infrastructure Consultants Ltd.



2. Landscape and Ecological Features

2.1 Retained Landscape and Ecological Features

- 2.1.1 The LEMP is concerned only with those ecological, arboricultural and landscape features that will be retained or created as part of the Proposed Development.
- 2.1.2 Ecological and landscape features that will be retained and enhanced within the Site, which require management, are:
- Other neutral grassland
 - Woodland



3. Landscape and Ecological Management Measures

- 3.1.1 This LEMP has been produced based on a 30-year management period after which time the LEMP should be reviewed and amended as required.

3.2 Plans

- 3.2.1 The Hollingworth Lake Climbing Structure Plan (Redwood Play Ltd, 2024) should be referenced in connection with the Landscape and Ecological Management Plan (LEMP) for the Site.

3.3 General Notes

- 3.3.1 All planting and operations should comply with the latest version of BS4428 'General Landscape Operations' and BS 3936 'Nursery Stock - Specification for Trees & Shrubs'.
- 3.3.2 All plants must be true to type, health and of the size specified on the Landscape and Ecological Master Plan. The BS 4043:1966 'Recommendations for transplanting semi-mature trees (BSI, 1966)' also outlines the minimum quality of stock, which will be accepted regarding trees.
- 3.3.3 Prior to planting, the planting areas must be cleared of rubbish, concrete, metal, glass, decaying vegetation and contaminated topsoil. Substances injurious to plant growth including rubble, fuel and lubricants must also be removed.
- 3.3.4 Stock shall be materially undamaged, sturdy, healthy and vigorous, of good shape and without elongated shoots, and free from pests and diseases, discolouration, weeds and physiological disorders. Plants shall have been grown in a suitable environment and hardened off. The root systems shall be to the requirements of the National Plant Specification.
- 3.3.5 Where native species are used within the planting scheme, they must be of local provenance.
- 3.3.6 All plants must be planted within the next available planting season post-construction. All planting works shall be carried out between the first week in October and/or the first week of March unless ground conditions are otherwise suitable.
- 3.3.7 Planting should only be carried out if weather and ground conditions are suitable. No planting shall be carried out when the ground is frozen, covered in snow, or waterlogged.
- 3.3.8 Failed stock that has died or failed to grow satisfactorily for two full growing seasons following the planting date must be replaced during the next available planting season. This work shall include the disposal of all dead or failed stock and associated materials.
- 3.3.9 All planting works shall be undertaken in such a manner to ensure that all newly planted stock can establish, develop and thrive successfully. Works shall be carried out to the relevant British Standards including: British Standard 4428: 1989 - Code of Practice for general landscape operations (BSI, 1989), BS 5236: 1975 - Recommendations for the cultivation and planting of trees in the advanced nursery stock category (BSI, 1975) and BS 8545:2014 - Trees: from nursery to independence in the landscape- recommendations (BSI, 2014).
- 3.3.10 On completion of planting, all litter and debris associated with the planting shall be removed and the Site left in a clean and tidy fashion.



3.4 Existing Other Neutral Grassland

Management Aim

- 3.4.1 The other neutral grassland is to be retained and enhanced as part of the Proposed Development.

Management Aims

- Create a meadow grassland that, once established, requires little or no maintenance.
- Provide good habitat for insects, small mammals, birds, amphibians, and reptiles, providing nesting sites during spring, food during summer and autumn, and shelter during winter.
- Achieve a grassland with >20% cover of wildflowers within a standard 2m x 2m quadrat and species diversity of at least 8 wildflower and four grass species within the habitat.

Intended Species Composition

- 3.4.2 The new grass and wildflower area will be sown with John Chambers Heritage Flowering Lawn 80% Grass Seed Wildflower Mix (John Chambers Wildflower Seed, 2024) on 300mm depth sandy subsoil at a rate of 4g/m².

Management – Year 1

- 3.4.3 The existing areas of neutral grassland will be subject to a mid-late August cut. This later management regime will stabilise the species diversity throughout the wildflower grassland and will allow any late flowering species to establish throughout the Site.
- 3.4.4 No cuttings shall be left for longer than three days at the Site to allow seeds to set. Cutting must be undertaken only in dry periods where dehiscence of seed pods is more likely to occur. Wet conditions may, over time, result in increased nutrient loading from cuttings into the sward which may be preclusive to botanical diversity, and favour more fast-growing species which may out-compete flower growing wildflowers.
- 3.4.5 Where over-seeding is required, the seed bed first requires the removal of weeds using repeated cultivation. The area must then be raked to produce a medium tilth, and rolled or trodden to produce a firm surface.
- 3.4.6 Seeds must be sown in the autumn or spring for sufficient warmth and moisture. The seeds must be surface-sown with an even distribution. Seeds should then be firmed with a roll, or by treading, to give good soil/seed contact.
- 3.4.7 Wildflower and grass species are slow to germinate and grow, and therefore do not usually flower in their first growing season. Consequently, there may be a flush of annual weeds from the soil's existing seed base in the first growing season, which may grow and obscure the meadow seedlings beneath.
- 3.4.8 When there is sufficient growth of either sown species or weeds to take a cut, mowing will be undertaken to a height of 40-60mm in the first year, with cuttings removed to preclude nutrient enrichment of the soil.
- 3.4.9 Following this initial cut, persistent weeds must be spot treated with herbicide or removed fully by hand. If weed growth is significant, the habitat may be mown until this is noticeably reduced.
- 3.4.10 Once seeded, the grassland must be monitored every three weeks for the growth of weed species, and these controlled as above.

Management – Years 2-5

- 3.4.11 In the second year, the wildflower grassland at the Site will be cut in mid-August.



- 3.4.12 Arisings will be left to dry for a period of up to three days, and then removed from Site. This will allow any seeds within the cuttings to set prior to their removal from the Site. This mid-August cut will increase botanical diversity within the sward in the third-year growing season.
- 3.4.13 From year 3 onwards, the wildflower sward at the Site will be cut in rotation, with two thirds being subject to an early August cut and one third cut in late August/early September to allow late flowering species to set seed, and ensure that one area is not subjected to the same management regime for more than two consecutive growing seasons. This management regime will encourage species diversity throughout the wildflower grassland and will allow any late flowering species to establish throughout the Site.
- 3.4.14 No cuttings shall be left for longer than three days at the Site to allow seeds to set. Cutting must be undertaken only in dry periods where dehiscence of seed pods is more likely to occur. Wet conditions may, over time, result in increased nutrient loading from cuttings into the sward which may be preclusive to botanical diversity, and favour more fast-growing species which may out-compete slower growing wildflowers.

Management – Years 6-30

- 3.4.15 For each year going forward, the areas will be subject to a mid-late August cut. This later management regime will stabilise the species diversity throughout the wildflower grassland and will allow any late flowering species to establish throughout the Site.
- 3.4.16 No cuttings shall be left for longer than three days at the Site to allow seeds to set. Cutting must be undertaken only in dry periods where dehiscence of seed pods is more likely to occur. Wet conditions may, over time, result in increased nutrient loading from cuttings into the sward which may be preclusive to botanical diversity, and favour more fast-growing species which may out-compete flower growing wildflowers.

3.5 Existing Trees and Woodland

Management Aim

- 3.5.1 Retain and proactively manage areas of woodland ensuring it has joint value for biodiversity, visual amenity, and screening.
- 3.5.2 To ensure the longevity and good health of the retained trees within the Site.
- 3.5.3 To improve the condition of the woodland according to the BNG metric.
- 3.5.4 Underplanting of the woodland in areas with a native thicket to improve age distribution, number of native tree species and vertical structure
- 3.5.5 Ground flora improvements with the overseeding of woodland mix

Species Composition

- 3.5.6 Initial planting should be carried out in areas where significant gaps exist and invasive plants have been removed.
- 3.5.7 The ground flora should be overseeded with Emorsgate Woodland Mix EW1 (Emorsgate, 2024).
- 3.5.8 The species to be planted within the woodland thicket must include a mix of species from the following list:
- Field maple (*Acer campestre*)
 - Alder (*Alnus glutinosa*)
 - Hazel (*Corylus avellana*)



- Common hawthorn (*Crataegus monogyna*)
- Holly (*Ilex aquifolium*)
- Blackthorn (*Prunus spinosa*)
- Dog rose (*Rosa canina*)
- Goat willow (*Salix caprea*)

Management - Year 1

- 3.5.9 All rhododendron (*Rhododendron ponticum*) plants will be removed from the woodland. It may be possible to pull small plants which have yet to establish a strong root system; more mature plants will likely require cutting to a low height, followed by herbicide treatment of the cut stumps to kill the root system. Herbicide treatments will only be applied by trained staff or contractors and will be applied in a targeted manner to prevent damage to surrounding trees, understorey or ground flora.
- 3.5.10 All newly planted species shall be fitted with a tree/shrub guard supported by a single 900mm long bamboo cane following the general planting recommendation. The only exceptions will be the *Ilex* plants - these will be protected using a 600mm high open mesh shrub shelter supported by and tied to a 900mm x 32mm timber stake.
- 3.5.11 Stakes and ties must be checked and adjusted to allow for growth.
- 3.5.12 All planting at the Site must be watered frequently, particularly during the summer or any other dry periods with little rainfall.
- 3.5.13 All existing trees must be checked to ensure healthy growth as well as the safety of future Site users. Pruning will be undertaken as required in accordance with BS3998:2010 and subsequent to consultation and approval by the Arboricultural Clerk of Works (ACoW) as detailed in the CEMP
- 3.5.14 For ground flora seeding, clear all unwanted vegetation from the areas to be sown. Take care not to dig too deep or close to existing trees to keep disturbance to the minimum required to expose fresh soil. Sow in the autumn or early spring. Do not incorporate or cover the seed.

Management - Years 2-5

- 3.5.15 Remove dead or diseased trees, injurious climbing plants and any other foreign objects.
- 3.5.16 Birds and their nests are legally protected (HMSO, 1981) and many species are listed as Species of Principal Importance (HMSO, 2006). Priority bird species are also afforded protection in planning through national and local planning policy. Works to trees, shrubs or scrub should avoid the nesting bird season (March to September inclusive) or be checked by the ECoW immediately prior to works to check for nesting birds if undertaken during the nesting season.
- 3.5.17 If suitable potential roost features (PRFs) for bats are found prior to works commencing on retained trees, an ecologist must be contacted for advice on how to proceed.
- 3.5.18 Crown lifting must only be carried out where necessary to ensure a clearance of 2.5m above footpaths/roadways to maintain sight lines. Footpaths and routes must be clear from obstructions.
- 3.5.19 Any new seedlings of rhododendron identified during monitoring must be immediately removed, and further treatment of previously cut shrubs progressed if appropriate to prevent regrowth and further spread of this species.
- 3.5.20 Soil around shrubs must remain uncompacted. Any soil which becomes compacted must be gently loosened with a fork to allow air and nutrients to circulate, and to reduce pressure to root



systems. After strong winds, frost heave or other disturbances, plants must be re-firmed by treading around the base of trees and shrubs until firmly bedded. All stakes must be checked and replaced or repositioned as required.

- 3.5.21 Pruning (where required) including the removal of dead, diseased or damaged wood and/or the pruning back of long side branches for safety reasons should be undertaken annually.
- 3.5.22 All stakes and ties must be removed, and the tree should have sufficiently established to support itself,
- 3.5.23 Native self-set specimens should be allowed to develop to encourage a varied age range throughout the habitat in line with the management aims for this habitat type.
- 3.5.24 Coppicing should be undertaken every 3 years, on a rotational basis, to promote structural diversity, encourage regrowth, and prevent areas from becoming too dense.
- 3.5.25 The planting at the Site is likely to require minimal intervention to successfully establish. However, in the event of disease, damage, soil compaction, drought etc management interventions may be required.
- 3.5.26 As an established woodland that has been under-sown with a woodland mixture, the flora requires little management during establishment. In the long-term, ground flora will benefit from good tree and coppice management.

Ongoing Management Y5-30

- 3.5.27 Trees are unlikely to require significant maintenance in the long-term other than regular monitoring to ensure they remain pest and disease free
- 3.5.28 Native self-set specimens should be allowed to develop to encourage a varied age range throughout the habitat in line with the management aims for this habitat type.
- 3.5.29 Coppicing should be undertaken every 5 years, on a rotational basis, to promote structural diversity, encourage regrowth, and prevent areas from becoming too dense.
- 3.5.30 Trees must be inspected annually, or more frequently if there have been periods of high winds, by a suitably qualified Arboricultural consultant to assess the health and safety of all trees within the Site. Ideally, the inspections should alternative each year from a summer inspection to a winter inspection. During the summer inspections leaf coverage, vigour and signs of pests and/or disease can be assessed and during autumn/winter surveys the structural condition and signs of fungal colonisation are better assessed. All works specified by the survey must be undertaken to fulfil the landowner's duty of care.
- 3.5.31 Any invasive species identified during monitoring must be immediately removed, and further treatment progressed if appropriate to prevent further spread of these species.
- 3.5.32 The planting at the Site is likely to require minimal intervention to successfully established. However, in the event of disease, damage, soil compaction, drought etc management interventions may be required.
- 3.5.33 After 15 years the habitat should have reached its target condition. Monitoring and maintenance of the habitat should continue every 3 years to ensure the habitat maintains its target condition.



4. Monitoring Requirements

4.1 Habitat Monitoring Requirements

- 4.1.1 All habitats at the Site will be monitored yearly by an ecologist who is a competent botanist, to ensure that management is being undertaken in accordance with this management plan.
- 4.1.2 The grassland habitats will be monitored between June and July through a National Vegetation Classification type survey, and all grassland areas will be subject to standard 2m x 2m quadrat monitoring to determine any changes in plant communities and species diversity over time.
- 4.1.3 Trees must be inspected annually, or more frequently if there have been periods of high winds, by a suitably qualified arboricultural consultant to assess the health and safety of all trees within the Site. Ideally, the inspections should alternate each year from a summer inspection to a winter inspection. During the summer inspections leaf coverage, vigour and signs of pests and/or disease can be assessed and during autumn/winter surveys the structural condition and signs of fungal colonisation are better assessed. All works specified by the survey must be undertaken to fulfil the landowner's duty of care.

4.2 Outcome Reporting

- 4.2.1 Any remedial measures required to achieve the aims set out in this LEMP, including any which deviate from this management plan within the first ten years, will be provided to the Site manager and maintenance team in a written report to be submitted within two weeks on completion of the monitoring visit. The monitoring report will also be sent to the Local Planning Authority for information.



References

BSI. (1966). Recommendations for transplanting semi-mature trees. BSI.

BSI. (1975). Recommendations for cultivation and planting of trees in the advanced nursery stock category. BSI.

BSI. (1989). BS 4428:1989 Code of practice for general landscape operations. British Standards Institute.

BSI. (2014). Trees: from nursery to independence in the landscape. Recommendations. BSI.

Emorsgate. (2024, October 08). EW1 - Woodland Mixture. Retrieved from Emorsgate Seeds: <https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/woodland-mixture/>

HMSO. (1981). The Wildlife and Countryside Act 1981 (as amended). London, UK: Her Majesty's Stationary Office.

HMSO. (2006). The Natural Environment and Rural Communities Act. London, UK: Her Majesty's Stationary Office.

John Chambers Wildflower Seed. (2024). Heritage Early Flowering 80% Grass Seed Seed Mix. Retrieved from John Chambers Wildflower Seed: <https://www.johnchamberswildflowers.co.uk/wildflower-seeds-mixes/80-grass-seed-mixes/heritage-early-flowering-80-grass-seed-seed-mix>

Redwood Play Ltd. (2024). Hollingworth Lake Climbing Structure. HCS0001A - 18/01/24.



Appendix 1 – Location Plan



Pavillion Cafe



Appendix 2 – The Proposed Development (Redwood Play Ltd, 2024)

Design

Rev	Modifications	Date	Approved
A	New Drawing	28/10/21	BW
B	Revision as per planning req	15/07/22	BW
C	Redesign to accomodate slope	01/09/23	BW
D	Updated with additional information requested	18/01/24	BW

SHELTER, INC BUILT IN STORAGE

PICNIC TABLES x8

CLIMBING STRUCTURE

GATE ONE

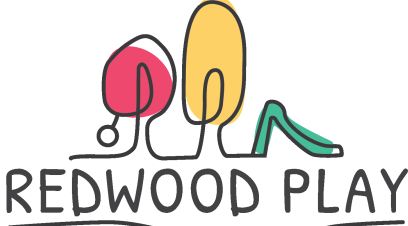
FENCING

GATE TWO

PICNIC TABLES x4

CLIMBING WALL

Redwood Play Ltd
East Barn
Little Witley
Worcester
WR6 6LL
e:ben@redwoodplay.com


REDWOOD PLAY

All Dimensions in mm

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Title
Hollingworth Lake Climbing Structure

Part / Dwg No
HCS0001A

Drawn by
BW

Scale
1:66

Sheet Size
A1

Sheet Number
1 of 21

Table 2. Management Schedule Y2-5

[illegible]

Table 3. Management Schedule Y5-30

[illegible]