



Nottinghamshire County Council

Dob Park

HABITAT MANAGEMENT PLAN

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FPCR Environment and Design Ltd

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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1.0 INTRODUCTION

- 1.1 The following Habitat Management Plan (HMP) has been prepared by FPCR Environment & Design Ltd on behalf of Nottinghamshire County Council. It details the proposed objectives and prescriptions for habitat management within an area of land proposed for designation as a Local Nature Reserve (herein referred to as the Site). The Site is illustrated in Figure 1.
- 1.2 The Site comprises land within Dob Park Grassland Local Wildlife Site (LWS) and areas of woodland and wetland to the north.
- 1.3 This Management Plan includes the following details in accordance with current guidance for LNR designation¹:
- Ownership of the land.
 - Agreements and/or partnerships.
 - Why the LNR site was chosen.
 - Aims and objectives.
 - Biodiversity management and environmental education.
 - Community participation, access and visitor management.
 - Costs and funding arrangements.
- 1.4 The Management Plan provides information on current and future management of habitats within the Site, in order to safeguard their long-term biodiversity value.

2.0 PLAN CONTENT

- 2.1 The Management Plan identifies the features which require maintenance; this includes:
- Initial management of habitats (within the first 5 years) to modify current habitats for biodiversity objectives, and
 - Ongoing sympathetic management over the length of the Plan period.
- 2.2 Every management plan should have an over-arching vision, and, for this site, this is to:
- Enhance retained habitats for nature conservation and the benefit of wildlife.
 - Maintain, enhance and promote public access along designated footpaths.
- 2.3 The Management Plan has been presented in tabular format for conciseness and ease of use. Management prescriptions have been provided (Table 1) which are considered necessary to achieve the objective for each feature. Figure 1 provides the location of the management features which are the subject of this plan. The Plan covers a period of thirty years, with the programme of works required over this period summarised in Table 2.
- 2.4 Monitoring is an essential part of any management plan, to:
- Ensure that the proposed management is being implemented.
 - Respond to unexpected outcomes from management.

- Detail remedial/contingency measures where applicable.
- Determine if objectives are being achieved.

- 2.5 Monitoring requirements are identified in Table 3. Ongoing management should be reviewed every 5 years in perpetuity.

3.0 RESPONSIBILITY FOR IMPLEMENTATION

- 3.1 Nottinghamshire County Council will be responsible for implementation of the Management Plan. There will be appropriate legal and funding mechanisms in place as part of this to secure the long-term maintenance of greenspaces, including the requirements set out in this plan.
- 3.2 There is no dedicated budget for the management of the sites covered by this Management Plan, with management paid for from Nottinghamshire County Council's overall Green Spaces budget.

4.0 SITE INFORMATION

- 4.1 All land described below and detailed within this Management Plan is under the ownership of Nottinghamshire County Council.
- 4.2 No agreements or partnerships are in place at the site.
- 4.3 No community groups are associated with the sites, but community participation is enabled through regular volunteer work parties. Access to all the sites is available at all times by a mix of formal and informal paths.

Site Description

- 4.4 The Site largely comprises blocks of plantation woodland interspersed with open areas of grassland. The woodlands were planted as part of Greenwood Community Forest, with Dob Park being the first area to be planted as part of this long-running initiative in 1991. Additional habitats within the Site include two watercourses with associated marginal areas of wetland, and scrub and hedgerows.
- 4.5 The south of the Site (to the south of Washdyke Lane) is designated as Dob Park Grassland LWS. The below site description is taken from the LWS Site Information document for 2/223 Dob Park Grassland produced by Nottinghamshire Biological and Geological Records Centre and provided by Nottinghamshire County Council.
- 4.6 'This large site comprises grassland interspersed with planted mixed woodlands and marshy areas associated with streams together creating a mosaic of wildlife habitats. The swards contain herb species such as yellow-rattle *Rhinanthus minor*, red clover *Trifolium pratense*, meadow vetchling *Lathyrus pratensis*, tufted vetch *Vicia cracca* and common knapweed *Centaurea nigra* with grasses including sweet vernal-grass *Anthoxanthum odoratum*, false oat-grass *Arrhenatherum elatius*, crested dog's-tail *Cynosurus cristatus* and Yorkshire-fog *Holcus lanatus*. Marshy areas add botanical interest supporting brooklime *Veronica beccabunga*, amphibious bistort *Persicaria amphibia*, wild angelica *Angelica sylvestris* and hemp-agrimony *Eupatorium cannabinum*. The site is well used by local people with paths and desire lines throughout.'

¹ <https://www.gov.uk/guidance/create-and-manage-local-nature-reserves>

The Local Nature Reserve

4.7 This site has been selected by Nottinghamshire County Council for designation as a Local Nature Reserve as it is:

- Currently well-used by the public for informal recreation, including walking, dog-walking and cycling.
- Under current positive management which is carried out by Nottinghamshire County Council, along with contractors and a team of volunteers.
- Accessible via well-maintained footpaths from Hucknall to the east.
- Well-served by multiple formal and informal footpaths throughout, which create a network of trails through the on-site habitats.
- Of nature conservation value, with all sections designated as Local Wildlife Sites and supporting a range of notable species.
- Of cultural value owing to it being the first site planted as part of Greenwood Community Forest, the core area of which now covers an area of 161 square miles².

5.0 HABITAT BASELINE

Data Collection

5.1 Desk study data was provided by Nottinghamshire County Council, and this has been reviewed and included within this Management Plan where considered relevant.

5.2 A Phase I Habitat survey³ was also carried out by FPCR in March 2023. As the survey was undertaken during the sub-optimal period for vegetation surveys, a full detailed botanical assessment of the site was not carried out. However, it is considered that the data collected during the survey, in addition to the desk study data and information provided by site managers for the LWS are sufficient to inform this Management Plan.

5.3 A summary of habitats present is detailed below, as well as faunal species which require consideration during ongoing management.

Habitats

5.4 Habitats are illustrated in Figure 1 and further descriptions with references are provided below.

Plantation Woodland

5.5 Several woodland compartments were present within Dob Park, which were planted in 1991. Ash *Fraxinus excelsior* trees both dead and in decline from ash dieback *Hymenoscyphus fraxineus* were noted throughout. Variations in this habitat were noted and are described below:

- Woodland W1 in the north was a small compartment with stands of densely planted hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, field maple *Acer campestre* and a cherry *Prunus sp.* The understorey was largely absent owing to the dense nature of planting although frequent ash saplings and occasional young hawthorn were present. Ground flora was generally limited and scattered throughout with a high percentage of bare ground (80-90%); species included lords-and-ladies *Arum maculatum*, wood avens

Geum urbanum, common nettle *Urtica dioica*, common ivy *Hedera helix* and a forgot-me-not *Myosotis sp.* In small areas along the western boundary the canopy was more open, with a more developed understorey of hazel, elm *Ulmus sp.*, a rose *Rosa sp.* and bramble *Rubus fruticosus* agg. A build-up of litter was present off-site to the west from adjacent land use.

- Woodland W2 in the north was a small compartment characterised by a cherry, young oak *Quercus sp.* and dead ash. In the south, owing to the number of dead ash trees, the woodland was very light and open and the understorey was well developed and dominated by hawthorn, with field maple, hazel, dogwood *Cornus sanguinea*, holly, blackthorn *Prunus spinosa* and yew *Taxus baccata*, in addition to non-native species including cherry laurel *Prunus laurocerasus* and a *Cotoneaster sp.* The ground flora was dominated by moss *Bryophyta sp.* In the north the understorey was very dense and ground flora largely absent, with abundant bramble and a rose. Brash piles from previous management were present.
- Woodland W3 to the south of watercourse WC1 was characterised by a cherry and dead ash, with few scattered lime *Tilia sp.*, oak and silver birch *Betula pendula*. The understorey was present with species recorded similar to W2. Ground flora included dog's mercury *Mercurialis perennis*, common hogweed *Heracleum sphondylium*, wood avens, cleaves *Galium aparine* and common ivy.
- Woodland W4 to the north of Washdyke Lane comprised mature cherry and field maple in the north with a developed understorey with species similar to W2 and a limited ground flora. To the south, the cherry were young and dead ash were present, and the woodland was light and open with a sparse understorey and ground flora characterised by moss and grassland including cock's-foot *Dactylis glomerata*, creeping buttercup *Ranunculus repens*, Yorkshire-fog, common sorrel *Rumex acetosa* and barren strawberry *Fragaria vesca*. A large population of common twayblade *Neottia ovata* also exists here, and a non-native golden rod *Solidago sp* has been recorded here also along the eastern side of this compartment.
- Woodland W5 to the south of Washdyke Lane comprised even age ash (some of which were dead), oak and hazel, with dense understorey of bramble, elder *Sambucus nigra*, hazel, rose, cherry and dogwood across the majority of the woodland (except where hawthorn was dense in the canopy as per W1). The understorey was generally sparse owing to the dense nature of the canopy and understorey with hart's tongue *Asplenium scolopendrium*, male fern *Dryopteris filix-mas*, a forget-me-not, wood avens, common nettle, moss and common hogweed. The stumps of previously removed larch were present throughout and tree guards were present on the ground within some areas.
- Woodlands W6 and W7 has canopies similar to W5 however mature larch were present throughout and bramble and young trees formed the shrub layer. As such the woodlands were very dense and ground flora was limited.
- Woodland W8 had been subject to felling and removal of larch and the remaining canopy included densely planted oak and ash. The understorey was developing and characterised by dense bramble, with young hazel, field maple and elder. The ground flora comprised tall ruderal herbs including common nettle, common hogweed and hedge woundwort *Stachys sylvatica* with dog's mercury also recorded.

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
W2, W3, W4, W5, W6, W7, W8	To increase the biodiversity value of the wood by improving the age-structure, creating a woodland ground flora, removal/control of non-native golden rod and increasing the deadwood resource. <i>Woodland has poor structure and species-poor ground flora with tall ruderal herbs and non-native species.</i>

² Greenwood Community Forest Online <https://www.greenwoodforest.org.uk/greenwoods-roots#greenwoodinitiative>

³ JNCC. (2010). Handbook for Phase 1 habitat survey – a technique for environmental audit. Peterborough: Joint Nature Conservation Committee

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
W1	To allow woodland to develop with minimal intervention where only trees adjacent to footpaths are managed as required for health and safety. <i>Woodland is small and within a little used part of the Site, providing opportunity for natural development.</i>

Dense Scrub

- 5.6 N.B. Scattered scrub within grassland habitat is detailed within the Grassland section below and Grassland section of Management Tables.
- 5.7 Small areas of scrub included blackthorn adjacent to woodland W5, areas of low growing bramble adjacent to hedgerow H2 and dense willow along watercourse WC2.
- 5.8 A larger area of mature even aged scrub habitat S1 was present to the north of W7. This comprised dense hawthorn, blackthorn, willow and bramble, along with mature ash trees at the eastern end. Tall ruderal herbs were present at the edges including common nettle, cow parsley *Anthriscus sylvestris* and common hogweed with dog’s mercury also recorded.
- 5.9 Scrub S2 was present along the banks of watercourse W2 and included hazel, hawthorn and holly.

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
S1	To remove a percentage of scrub S1 on an ad hoc basis to create opportunity for seedlings and young scrub to develop and establish structural variation within the habitat. <i>Scrub is mature, dense, and even aged.</i>
S2, Small areas of blackthorn and bramble	To control scrub within adjacent grassland habitats. <i>Scrub is encroaching into adjacent grassland.</i>

Hedgerows

- Hedgerow H1: an old laid hawthorn hedgerow with blackthorn, field maple, dogwood, hazel and bramble. Currently tall and unmanaged.
- Hedgerow H2: A tall outgrown hawthorn hedgerow with dog’s mercury ground flora. Adjacent to the hedgerow to the south is an area of blackthorn scrub and unmanaged grassland.

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
H1 and H2	To sympathetically manage native species hedgerows <i>Hedgerows across the site are varied in structure due to differing management strategies providing a variety of opportunities for wildlife.</i>
H2	Maintain bramble scrub and unmanaged grassland to south of hedgerow H2. <i>Unmanaged habitat provides good opportunity for wildlife such as reptiles and small mammals.</i>

Grassland

- 5.10 Open grasslands were present through the centre of Dob Park and along footpaths between woodland blocks. Species composition was similar with Timothy, Yorkshire fog, false oat grass, cock’s-foot and crested dog’s-tail throughout in addition to the following:

- Neutral Grassland G1 in the east of Dob Park on a south facing slope also included cowslip *Primula veris*, yellow rattle *Rhinanthus minor*, dandelion *Taraxacum agg.*, common knapweed, ribwort plantain *Plantago lanceolata*, common bird’s-foot-trefoil *Lotus corniculatus*, a tare *Vicia sp.* and oxeye daisy *Leucanthemum vulgare*. This was dominated by broadleaved grasses to the south with fewer herbs.
- Neutral Grassland G2 had a high proportion of flowering herbs with abundant common knapweed, and cowslip, meadow buttercup *Ranunculus acris*, yarrow *Achillea millefolium* and field woodrush *Luzula campestris*, and lesser celandine *Ficaria verna* at the edges.
- Neutral Grassland G3 had a tall herb component of common hogweed, common nettle and cow parsley in the east and north, with cowslip, common knapweed, ribwort plantain, cut-leaved crane’s-bill *Geranium dissectum*, common bird’s-foot-trefoil and scattered hawthorn and rose scrub.
- Neutral Grassland G4 on a south facing slope included common knapweed, oxeye daisy, meadow buttercup, ribwort plantain, common mouse-ear *Cerastium fontanum*, common sorrel, a vetch *Vicia sp.* and a fescue *Festuca sp.* To the north where this became a narrow ride between woodlands W5 and W6 the grassland had a high tall herb component as G3 with scrub encroachment.

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
All grasslands G1 – G4	To sympathetically manage areas of open grassland. <i>Open areas of grassland provide an important habitat resource within the site.</i>

Ponds

- Ponds P1 and P2 in the north of the site were small and vegetated by yellow iris *Iris pseudacorus* with a duckweed *Lemna sp.* also recorded. Frog spawn was noted within the ponds.
- Pond P3 was a small ephemeral pool located within the east of Dob Park, vegetated with a *Persicaria sp.*, creeping buttercup and a horsetail *Equisetum sp.*

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
P1, P2, P3	To maintain and enhance the biodiversity value of on-site ponds. <i>Ponds are varied in characteristics, providing a variety of opportunities for wildlife.</i>

Watercourses, Marginal Vegetation and Wetland

- 5.11 Two watercourses were recorded within the Site.
 - WC1 was present in the north of the site between woodlands W2 and W3. This was a shallow fast flowing stream with a sandy and pebbly base, and with fool’s watercress present within the channel. Mature alder were present along the northern bank.
 - Wetland WE1, adjacent to WC1 was an area dominated by tall herb on sloping ground from the edge of woodland W2 down to the stream. On its northern edge, this habitat included scattered scrub and young trees, and the ground was dry, however soft boggy was ground present further down the slope towards the stream. Vegetation included common nettle, common hogweed, a willowherb, wild angelica and a figwort *Scrophularia sp.* Small flushes with brooklime and a liverwort were also present with water flowing into the stream. A large population of shore horsetail *Equisetum x littorale* is also present in WE1.
 - WC2 was present through the centre of Dob Park LWS in the south. For the majority of its length, this flowed eastwards through a deep, steeply sided channel lined with scrub S1 and S2, with dog’s mercury, lesser celandine and lord’s-and ladies on earth banks. In the west, the stream split and the northern most channel (WC3) flowed eastwards through open grassland G1, and the banks were lined with

marginal vegetation including common comfrey *Symphytum officinale*, willowherb, common nettle, broadleaved dock, a mint *Mentha sp.* and a figwort. Scattered willow were present along the banks, with a dense stand present in the west of WC3.

- Wetland WE2 was present where WC2 and WC3 split, and the channel emerged into grassland G1. This was a small area where the stream opened out and was vegetated with yellow iris and a willowherb.

FEATURE	MANAGEMENT OBJECTIVE & RATIONALE
WC1, WC2, WC3, WE1 and WE2.	To maintain and enhance the biodiversity value of on-site watercourses and wetland. <i>Watercourses across the site are varied in characteristics, providing a variety of opportunities for wildlife.</i>

Faunal Considerations

- 5.12 Amphibians, reptiles nesting birds, badger *Meles meles* and roosting bats will be considered as part of future management to ensure these species are not harmed by management practices but instead benefit from the enhancement of the habitats.

Amphibians and Reptiles

- 5.13 Common frog *Rana temporaria* have been recorded within Dob Park and the ponds provided suitable breeding and foraging opportunities for amphibians. Works should therefore be undertaken at a time of year which is the least detrimental. This is typically accepted to be the winter months.
- 5.14 Areas of suitable reptile habitat such as unmanaged grassland and marginal vegetation provide foraging and commuting habitat for reptiles. It is recommended that these areas are subject to low intensive management and works to any areas offering potential for hibernation undertaken outside of the winter period.

Bats

- 5.15 A number of trees with bat potential are located within the woodlands across the Site. These should be identified and protected during management works on the site. If any additional trees require removal or Arboricultural works in the future, then an ecologist should check the tree for bat potential before works are conducted.

Birds

- 5.16 The Site provides habitat for tree and shrub nesting species. Removal of trees or coppicing activities should be done outside the nesting season (works to be undertaken between September/October and January/February).

Badger

- 5.17 Badgers are known to utilise the Site, therefore an ecologist should be contacted should badger setts be identified within any working areas where machinery, trees/scrub removal or ground breaking are proposed. The ecologist can provide appropriate working methods, if necessary.

Access

- 5.18 The Site is served by a number of footpaths including stepped sections with handrails which were generally in good condition. These should be monitored and maintained for the length of the Management Plan period.

Table 1: Management Plan

FEATURE	OBJECTIVES	PRIORITY	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE AND CRITERIA – INITIAL MANAGEMENT	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE – ONGOING HABITAT MANAGEMENT	INDICATOR THAT OBJECTIVE HAS BEEN ACHIEVED AND REMEDIAL ACTION IF REQUIRED
<p>1. Plantation Woodland W1, W2, W3, W4, W5, W6, W7 and W8</p>	<p>To increase the biodiversity value of woodlands W2 – W8 by improving the age-structure, creating a woodland ground flora (W5, W7 and W8 only), removal/control of non-native golden rod, and increasing the deadwood resource.</p> <p>To allow woodland W1 to develop with minimal intervention where only trees adjacent to footpaths are managed as required for health and safety.</p>	<p>LOW / MEDIUM / HIGH</p> <p>LOW / HIGH</p>	<p>1.1 <u>Removal of larch and dead ash (where necessary)</u> To create a more open woodland to help development of shrub layer and ground flora. This will be carried out by a forestry contractor and timber removed from site.</p> <p>1.2 <u>Thinning of woodlands following larch and dead ash removal (where necessary)</u> Woodlands could be thinned further to create more open conditions to help development of shrub layer and ground flora. This should be undertaken following a review of woodlands post larch and ash removal, and could entail a progressive thin of the woodlands focusing on retaining higher quality specimens and the removal of 10-20% trees during each management session. Thinning operations should also aim to create woodland edge habitat of native scrub and young trees along the outer edges of woodland compartments and adjacent to footpaths. This should be carried out using chainsaws and the removed brush material should be chipped on site ideally using a tracked chipper to reduce any compaction to the soil. The woodchip could be piled on site, if appropriate. Alternately, cut material could be stacked to create brush piles. Any wood created from the thinning operation will be stacked in log pyramids no greater than 5 logs high within the woodland forming habitat log piles. Alternately, material could be removed from site using appropriate machinery or horse-logging.</p> <p>1.3 <u>Coppicing of hazel in W5, W7 and W8</u> A small number of suitable trees will be coppiced on an ad hoc basis to start a new cycle of coppice management and to open up canopy and provide additional scrub layer. To coppice: <ul style="list-style-type: none"> • Clear out all leaves and other debris around the base of the stool. • Cut and clear away any dead or dying stems. • Progressively cut each stem starting with the most accessible sections and working in to the centre of the stool. • Cut should be made about 1-2 inches above where the branch grows out of the stool at 15 to 20 degrees from horizontal with the lowest point facing outwards from the centre of the stool. • Cut branches and twigs should be used to create log piles. </p> <p>1.4 <u>Planting ground flora within W4, W5, W7 and W8 (where appropriate)</u> <ul style="list-style-type: none"> • Introduce woodland wildflowers. Plant woodland wildflower plugs or bulbs at a planting density of 5 plants/m2 using the following planting mixes. • Suitable central areas: wood anemone, bluebell, yellow archangel, wood forget-me-not, common dog-violet, wild strawberry, primrose, woodruff. • Suitable woodland edges: red campion, greater stitchwort. <p>Or,</p> </p>	<p>1.7 <u>Coppicing of hazel in W5, W7 and W8</u></p> <ul style="list-style-type: none"> • Coppicing on rotation annually choosing a small number of trees to coppice each year with repeat coppicing of trees occurring every 7 years for hazel. • Cut branches and twigs should be used to replenish log piles. • Cutting will take place September- February to avoid the breeding bird season, and ideally undertaken in late January or February, avoiding any periods of heavy frost. <p>1.8 <u>Progressive thinning (where necessary)</u></p> <ul style="list-style-type: none"> • As per 1.2. <p>1.9 <u>Monitoring ground flora W4, W5, W7 and W8 (where appropriate)</u></p> <ul style="list-style-type: none"> • Control nettle and bramble in areas of ground flora planting. • Replant as required if initial planting unsuccessful. <p>1.10 <u>Arboricultural works for health and safety – All woodlands</u></p> <ul style="list-style-type: none"> • Any felling works required outside of nesting bird season and after checks on semi-mature and mature trees for bats. • Deadwood to be left standing where appropriate and logs and branches used in log piles. <p>1.11 <u>Invasive species management including Cotoneaster and cherry laurel</u></p> <ul style="list-style-type: none"> • Removal of any invasive or undesirable non-native species by, • Cutting back and grubbing up roots, or; • Cutting and treating stumps with an appropriate herbicide. • Arisings to be removed from site to appropriate disposal facility. <p>1.12 <u>Remove old trees guards.</u></p> <ul style="list-style-type: none"> • As part of general site maintenance. 	<p><u>Indicators W2 – W8</u></p> <ul style="list-style-type: none"> • Diverse woodland present with a canopy layer, understorey of scrub and young trees and ground flora evident. • Invasive and undesirable non-native species are absent. • Standing deadwood is present throughout the woodlands as dead branches, stems or stumps (e.g., in 50% of all survey/monitoring plots). • Vegetation and ground flora: – recognisable NVC community. • Tree health: Tree mortality less than 10%, no pests or diseases and no crown dieback. • Number of native tree species: Five or more native tree or shrub species found across woodland parcel. • Woodland regeneration: All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth. <p><u>Remedial actions W2 – W8</u> If woodland layers not present, appropriate areas should be managed as prescribed in management actions.</p> <p><u>Indicators W1</u> Trees adjacent to footpath have been monitored and managed with no health and safety risks identified.</p> <p><u>Remedial actions W1</u> Carry out arboricultural works where required.</p>

FEATURE	OBJECTIVES	PRIORITY	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE AND CRITERIA – INITIAL MANAGEMENT	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE – ONGOING HABITAT MANAGEMENT	INDICATOR THAT OBJECTIVE HAS BEEN ACHIEVED AND REMEDIAL ACTION IF REQUIRED
			<ul style="list-style-type: none"> Surface sow Emorsgate EW1F Woodland Mixture (or similar) during spring (April/early May) or preferably the optimal period for lowland sites of autumn (late August to September), selecting a time when the soil is moist and can be worked. See can be applied by machine or broadcast by hand. <p>1.5 <u>Create deadwood</u></p> <ul style="list-style-type: none"> Retain all deadwood in-situ unless plant health reasons require removal and destruction off-site. Maximise opportunities to create standing deadwood during any tree works required for health and safety issues. <p>1.6 <u>Remove non-native golden rod Solidago sp. from woodland W4</u> Removal can be achieved through either:</p> <ul style="list-style-type: none"> Cutting twice per year over a number of years (May and August). Excavation, however it must be ensured that all roots and rhizomes are removed. Chemical control through herbicide application early in the growing season. 		
<p>2 Scrub S1, S2 and small areas of blackthorn and bramble</p>	<p>To remove a percentage of scrub within S1 on an ad hoc basis to create opportunity for seedlings and young scrub to develop and establish structural variation within the habitat.</p> <p>To control scrub within adjacent grassland habitats.</p>	<p>LOW</p> <p>HIGH</p>	<p>2.1 <u>Remove a small number of individual mature scrub specimens on an ad hoc basis by cutting/coppicing.</u></p> <ul style="list-style-type: none"> Cut a small number roughly every 5 years and allow cut specimens to regenerate to create a mixed age edge habitat. 	<p>2.2 <u>Remove a small number of individual mature scrub specimens on an ad hoc basis by cutting/coppicing.</u></p> <ul style="list-style-type: none"> As per 2.1. <p>2.3 <u>Monitor scrub growth within grassland habitats</u></p> <ul style="list-style-type: none"> Monitor scrub growth within areas of grassland and cut back on a regular basis to maintain open grassland habitat. <p>2.4 <u>Invasive species management (all)</u></p> <ul style="list-style-type: none"> Removal of any invasive or undesirable non-native species Arisings to be removed from site to appropriate disposal facility 	<p><u>Indicator</u></p> <ul style="list-style-type: none"> There is a good age range: seedlings, young shrubs and mature shrubs present within managed areas. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover. The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s). There are clearings present within scrub S1, S2 and S3, providing sheltered edges. <p><u>Remedial actions</u></p> <p>Appropriate areas should be managed as prescribed in management actions.</p>
<p>3 Hedgerows H1 and H2</p>	<p>To sympathetically manage native species hedgerows</p>	<p>LOW</p>	<p>N/A</p>	<p>3.1 <u>Maintain H2 as a tall outgrown hedgerow through limited intervention.</u></p> <p>3.2 <u>H1: Cut 50% every other year.</u></p> <ul style="list-style-type: none"> Cut 50% of hedgerow H1 every other year. <p>3.3 <u>Maintain bramble scrub and unmanaged grassland to south of hedgerow H2.</u></p>	<p><u>Indicator</u></p> <ul style="list-style-type: none"> Hedgerows have good structure and produce flowers and fruit. <p><u>Remedial Action</u></p> <p>Appropriate management as prescribed in management actions.</p>

FEATURE	OBJECTIVES	PRIORITY	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE AND CRITERIA – INITIAL MANAGEMENT	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE – ONGOING HABITAT MANAGEMENT	INDICATOR THAT OBJECTIVE HAS BEEN ACHIEVED AND REMEDIAL ACTION IF REQUIRED
<p>4 Grassland All grasslands G1 – G4</p>	<p>All grasslands: To sympathetically manage areas of open grassland.</p>	<p>HIGH</p>	<p><u>N/A</u></p>	<p>4.1 <u>Conservation cut of grasslands.</u></p> <ul style="list-style-type: none"> • Cut grassland each September using a flail and collect machine. <p>4.2 <u>Cutting of verges along footpaths</u></p> <ul style="list-style-type: none"> • Cut verges 1m either side of paths during late May/early June and mid-late September. <p>4.3 <u>Manage scrub cover</u></p> <ul style="list-style-type: none"> • Remove scrub as required to have less than 5% cover • Arisings to be placed on log piles 	<p><u>Indicators</u></p> <ul style="list-style-type: none"> • Significant areas of flowering grassland present with evidence of low-intensity management • Cover of bare ground between 1% and 5% • Cover scrub (including bramble) less than 5%. • There is an absence of invasive non-native species and undesirable species and physical damage less than 5% of total area. <p>Note: Species considered undesirable for this habitat type include creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i>, cow parsley.</p> <p><u>Remedial actions</u></p> <p>If grassland shows evidence of mismanagement (not fulfilling criteria) management actions will be followed.</p>
<p>5 Ponds P1, P2 and P3</p>	<p>To maintain and enhance the biodiversity value of on-site ponds.</p>	<p>LOW</p>	<p>5.1 <u>Consider the removal of a proportion of yellow iris from Ponds P1 and P2.</u></p> <ul style="list-style-type: none"> • Cut back and remove yellow iris to maintain 25% – 50% open water. If undertaken, this should be carried out in the winter on a little-and-often basis, to reduce disturbance to wildlife. 	<p>5.2 <u>Manage to remove any scrub encroachment.</u></p> <ul style="list-style-type: none"> • Cut back or remove any scrub encroachment within ponds. <p>5.3 <u>Invasive/undesirable Species Management.</u></p> <ul style="list-style-type: none"> • Ensure ponds and wetland remain free of non-native plant species. 	<p><u>Indicator</u></p> <ul style="list-style-type: none"> • If removal undertaken, ponds P1 and P2 should have 25% - 50% open water free of yellow iris. • No scrub growth within ponds areas. • Ponds are free from invasive or undesirable species. <p><u>Remedial actions</u></p> <ul style="list-style-type: none"> • Clear yellow iris, scrub and non-native flora.
<p>6 Watercourses, Marginal Vegetation and Wetland WC1, WC2, WC3, WE1 and WE2</p>	<p>To maintain and enhance the biodiversity value of on-site watercourses and wetlands.</p>	<p>LOW / MEDIUM</p>	<p>6.1 <u>Maintain the extent of wetland habitat WE1 through the removal of scrub and young trees.</u></p> <ul style="list-style-type: none"> • Cut scrub and young trees. • This should be carried out in the winter on a little-and-often basis, to reduce disturbance to wildlife. 	<p>6.2 <u>Maintain the mosaic of open and overshaded banks along WC1 and WC3.</u></p> <ul style="list-style-type: none"> • Maintain extent of alder, willow and scrub along WC1 and WC3 to ensure the stream remains open (aim for approx.. 10 - 20% scrub and young trees). <p>6.3 <u>Maintain the extent of wetland habitat WE1 and WE2 through the removal of scrub and young trees.</u></p> <ul style="list-style-type: none"> • Cut scrub and young trees. • This should be carried out in the winter on a little-and-often basis, to reduce disturbance to wildlife. <p>6.4 <u>Ensure WC1, WC2 and WC3 are free of litter.</u></p> <ul style="list-style-type: none"> • Clear litter, large accumulations of debris. <p>6.5 <u>MEDIUM Monitor and remove any non-native species (such as golden rod recorded in W4) and undesirable species from watercourses and wetlands.</u></p>	<p><u>Indicator WE1 and WE2</u></p> <ul style="list-style-type: none"> • Scrub and young trees are absent from wetland. <p><u>Remedial action WE1 WE2</u></p> <ul style="list-style-type: none"> • Remove scrub and young trees. <p><u>Indicator WC1 and WC3</u></p> <ul style="list-style-type: none"> • Scrub and young trees form 10-20% cover along banks <p><u>Remedial action WC1 and WC3</u></p> <ul style="list-style-type: none"> • Remove scrub and young trees.

FEATURE	OBJECTIVES	PRIORITY	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE AND CRITERIA – INITIAL MANAGEMENT	MANAGEMENT ACTION TO ACHIEVE OBJECTIVE – ONGOING HABITAT MANAGEMENT	INDICATOR THAT OBJECTIVE HAS BEEN ACHIEVED AND REMEDIAL ACTION IF REQUIRED
7 Access	To maintain footpath surfaces and infrastructure free from damage and erosion.	LOW	7.1 Monitor and maintain footpaths and infrastructure. <ul style="list-style-type: none"> Carry out repair works as necessary. 	7.2 Monitor and maintain footpaths and infrastructure. <ul style="list-style-type: none"> Carry out repair works as necessary. 	Indicator <ul style="list-style-type: none"> Footpaths and infrastructure in good condition. Remedial actions <ul style="list-style-type: none"> Carry out repair work as necessary.

Table 2: Thirty-Year Work Programme

FEATURE	MANAGEMENT/ MONITORING WORKS	YEAR AND TIMING																							
		1x = undertake management action once only within 5-year period, 5x = undertake management action once a year within 5-year period, x As req. = undertake management action as required within 5-year period.																							
		YEARS 1 – 5				YEARS 6 - 10				YEARS 11 - 15				YEARS 16 - 20				YEARS 21 - 25				YEARS 26 - 30			
		Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi
1. Plantation Woodland W1, W2, W3, W4, W5, W6, W7 and W8	1.1 MEDIUM Removal of larch and dead ash.				x As req.								1x												1x
	1.2 and 1.8 MEDIUM Thinning of woodlands following larch and dead ash removal				x As req.				x As req.				x As req.												x As req.
	1.3 and 1.7 LOW Coppicing hazel in W5, W7 and W8, approx. every 7 years				1x				1x				1x												1x
	1.4 LOW Planting ground flora W4, W5, W7 and W8, spring or autumn. Replant as necessary in years 16 – 20 if initial planting unsuccessful.	1x		1x										1x		1x									
	1.5 LOW Create deadwood	Continuous, where appropriate, outside of nesting bird period if woody vegetation removed																							
	1.6 MEDIUM Remove non-native goldenrod from woodland W4. Timing dependent on control measures used.	x As req.	x As req.			x As req.	x As req.			x As req.	x As req.			x As req.	x As req.			x As req.	x As req.			x As req.	x As req.		
	1.9 LOW Monitoring ground flora, controlling bramble and common nettle.		5x				5x				5x				5x					5x					5x
	1.10 HIGH Additional arboricultural works				x As req.				x As req.				x As req.					x As req.				x As req.			x As req.
1.11 MEDIUM Invasive species removal	Continuous, where appropriate, outside of nesting bird period if woody vegetation removed.																								

FEATURE	MANAGEMENT/ MONITORING WORKS	YEAR AND TIMING																							
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		YEARS 1 – 5				YEARS 6 - 10				YEARS 11 - 15				YEARS 16 - 20				YEARS 21 - 25				YEARS 26 - 30			
Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi	Sp	Su	Au	Wi		
2. Scrub S1, S2 and small areas of blackthorn and bramble	2.1 and 2.2 LOW Remove a small percentage of scrub within S1 on an ad hoc basis				1x				1x				1x				1x				1x				1x
	2.3 LOW Monitor scrub growth, cut back on a regular basis to maintain open grassland habitat.				2x				2x				2x				2x				2x				2x
	2.4 LOW Invasive/undesirable species management	Continuous, where appropriate, outside of nesting bird period if woody vegetation removed.																							
3. Hedgerows H1 and H2	3.1 LOW Cut 50% of hedgerow H1 every other year				2 or 3x				2 or 3x				2 or 3x				2 or 3x				2 or 3x				2 or 3x
4. Grassland All grasslands G1 – G4	4.1 HIGH Conservation cut of grasslands in September using flail and collect machine			5x				5x				5x				5x				5x				5x	
	4.2 HIGH Twice yearly cut of grassland along footpaths, May and September			5x				5x				5x				5x				5x				5x	
	4.3 HIGH Manage scrub cover to less than 5%				2x				2x				2x				2x				2x				2x
5. Ponds P1, P2 and P3	5.1 LOW Remove yellow iris from ponds P1 and P2 to maintain 25%-50% open water.				1x				1x				1x				1x				1x				1x
	5.2 LOW Remove scrub from ponds				2x				2x				2x				2x				2x				2x
	5.3 LOW Remove any non-native and undesirable species from ponds.	Continuous, where appropriate, timing dependent on control measures used.																							
6. Watercourses, Marginal Vegetation and Wetland WC1, WC2, WC3, WE1 and WE2	6.1 and 6.3 LOW Remove scrub and young trees from WE1 and WE2				2x				2x				2x				2x				2x				2x
	6.2 LOW Remove alder, willow and scrub from banks of WC1 and WC3 if required (cover exceeds 20%)				1x				1x				1x				1x				1x				1x
	6.4 LOW Clear litter and large accumulations of debris.	Continuous, where appropriate, outside of nesting bird period if woody vegetation needs to be removed.																							
	6.5 LOW Monitor and remove any non-native species (such as golden rod recorded in nearby W4) and undesirable species from watercourses and wetlands.	Continuous, where appropriate, timing dependent on control measures used.																							
7. Access	6.1 and 6.2 LOW To maintain footpath surfaces and infrastructure free from damage and erosion.	Continuous, where appropriate, outside of nesting bird period if woody vegetation needs to be removed.																							

FEATURE	MANAGEMENT/ MONITORING WORKS	YEAR AND TIMING																													
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		YEARS 1 – 5				YEARS 6 - 10				YEARS 11 - 15				YEARS 16 - 20				YEARS 21 - 25				YEARS 26 - 30									
Sp		Su		Au		Wi		Sp		Su		Au		Wi		Sp		Su		Au		Wi		Sp		Su		Au		Wi	
8. All Habitats	Remove litter, repair infrastructure, monitor signs of antisocial behaviour.	Continuous, where appropriate, outside of nesting bird period if woody vegetation needs to be removed.																													

Table 3: Annual monitoring requirements

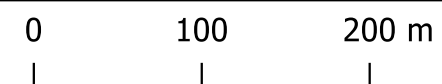
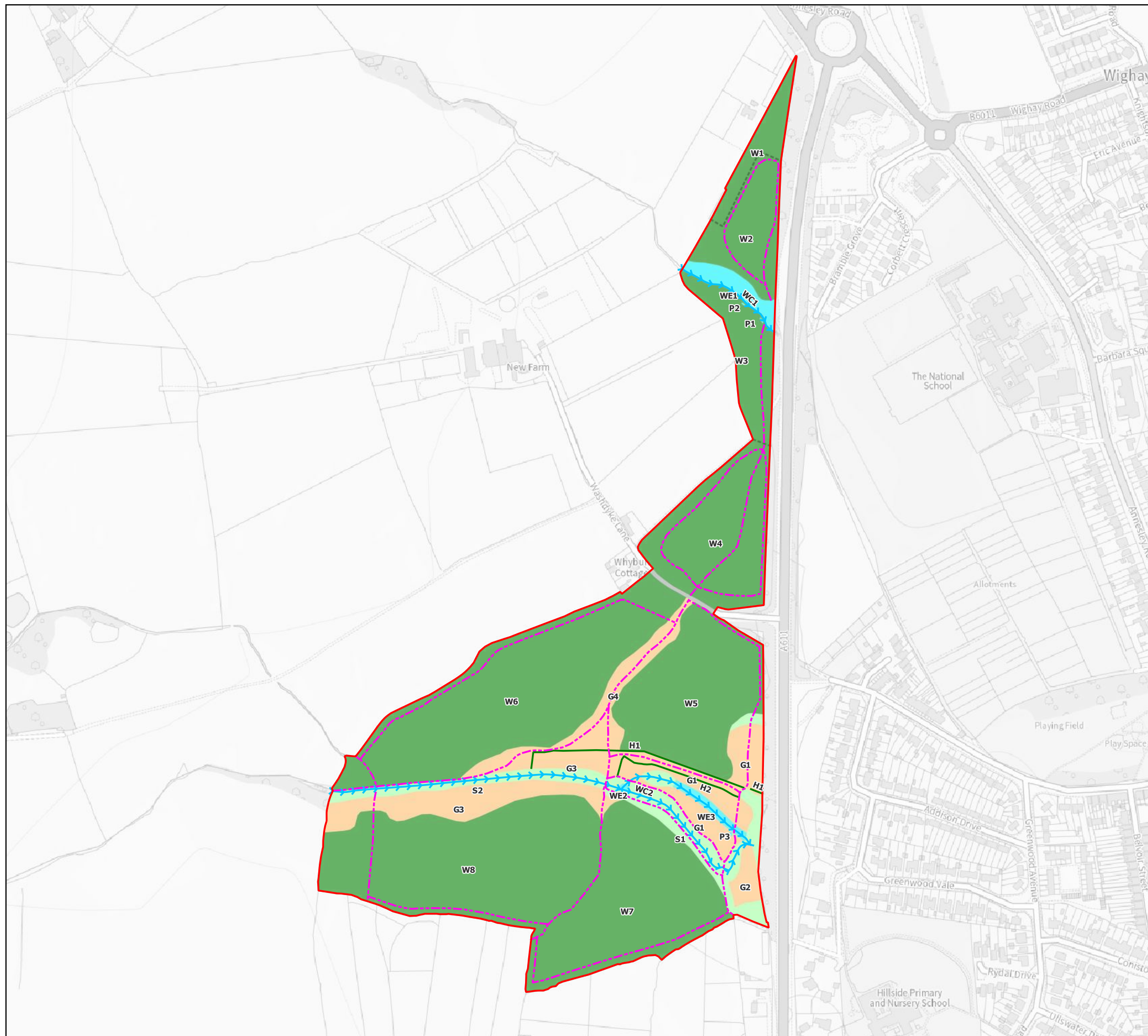
Location	Monitoring Frequency	Monitoring Items
1. Plantation Woodland	Monitoring visit every 5 th year to record management that has been implemented and monitor condition of the woodland. Refer to Indicators in Table 1.	Do the woodlands have a varied structure, with a canopy layer, understorey and ground flora evident? Has coppicing and thinning taken place? Has non-native species removal/control taken place? Is deadwood present?
2. Scrub	Monitoring visit every 5 th year to record management that has been implemented and monitor condition of the scrub. Refer to Indicators in Table 1.	Does managed scrub have a good age range and structure? Has scrub been removed from grassland habitats, where required?
3. Hedgerows	Monitoring every 2 nd year to record management that has been implemented and monitor condition of the hedgerows. Refer to Indicators in Table 1.	Has cutting been undertaken? Do hedgerows have good structure?
4. Grassland	Annual monitoring to record management that has been implemented and monitor condition of the ponds and wetland. Refer to Indicators in Table 1.	Has annual grassland cutting taken place? Is there <5% scrub within grassland habitats?
5. Ponds	Annual monitoring to record management that has been implemented and monitor condition of the ponds and wetland. Refer to Indicators in Table 1.	Does pond P1 have 25% - 50% open water? Are ponds free from scrub and undesirable species?
6. Watercourses, Marginal Vegetation and Wetland	Annual monitoring to record management that has been implemented and monitor condition of the watercourses. Refer to Indicators in Table 1.	Are watercourses free on non-native, invasive and undesirable species? Do scrub and young trees form <20% cover along WC1 and WC3? Is scrub absent from wetland habitats?
7. All Habitats	Continuous monitoring for accumulations of litter, damage to infrastructure and signs of antisocial behaviour.	Is the Site free of litter? Is there any damage to infrastructure (gates, way markers, benches etc.)? Are there any signs of antisocial behaviour?
8. Management Plan	Every 5 th year.	Has Management Plan been reviewed?

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Key

- Site Boundary
- Habitats (with reference)**
- Grassland
- Scrub
- Wetland
- Broadleaved Semi-Natural Woodland
- Hardstanding
- Hedgerow
- Running Water
- Unsurfaced Footpath



client
Nottinghamshire County Council

project
**Dob Park,
Nottingham**

drawing title
MANAGEMENT PLAN

scale @ A3
1:4500

drawing / figure number
Figure 1

drawn
LG / ERD

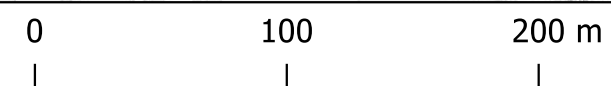
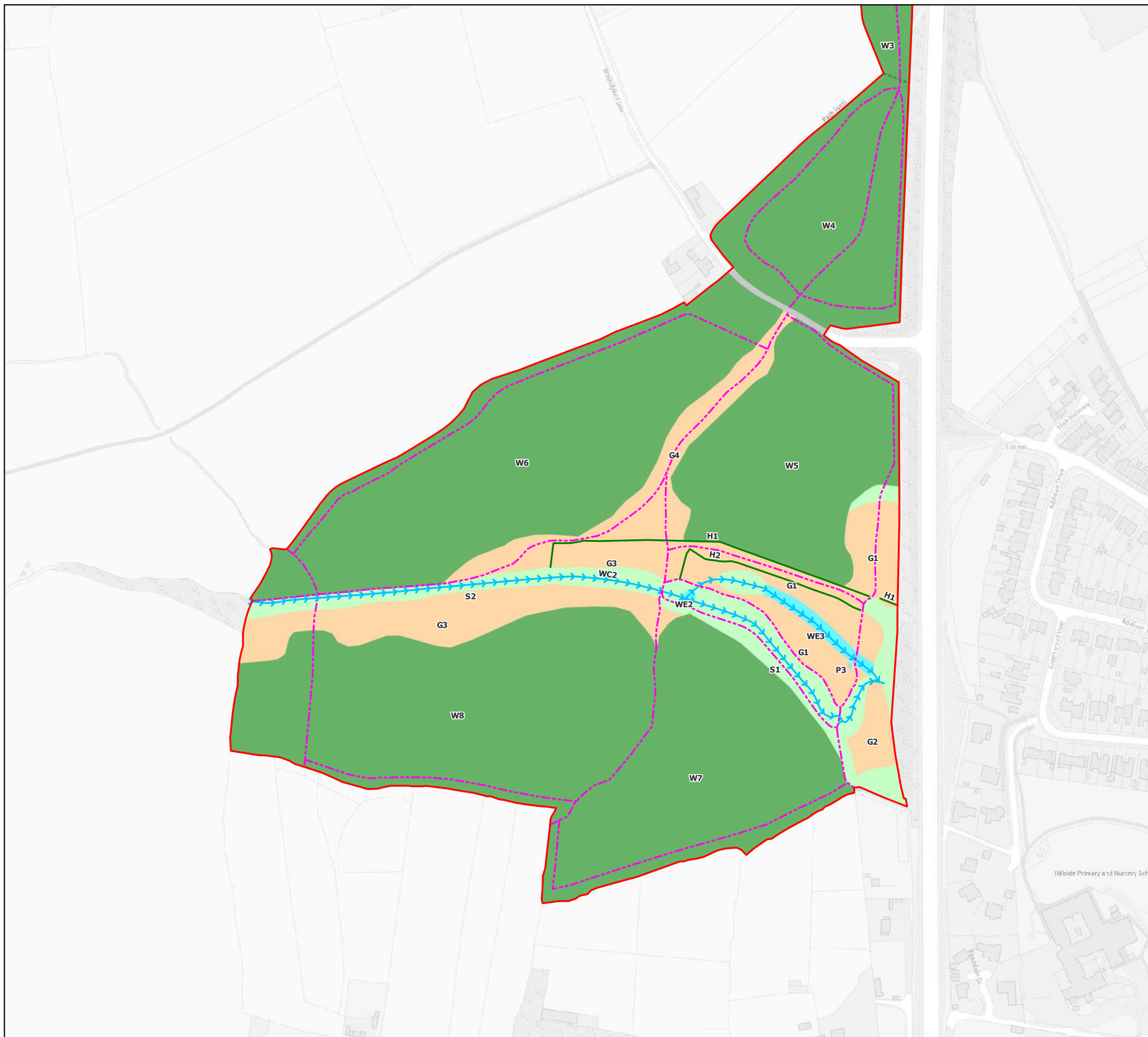
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Nottinghamshire County Council

project
**Dob Park,
Nottingham**

drawing title
MANAGEMENT PLAN - SOUTH

scale @ A3
1:3000

drawing / figure number
Figure 1b

drawn
LG / ERD

issue date
10/5/2023