Habitat Management and Monitoring Plan

JNA-ARB-XX-XX-RP-X-0001-HMMP-V1

Formerly the Deighton Centre, Deighton Road, Huddersfield HD2 1JP

Wates Group

Status	Issue	Name	Date
Draft	0.1	Kat Aburrow BSc, Consultant Ecologist	14/01/2025
Reviewed	0.2	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	16/01/2025
Final	1	Kat Aburrow BSc, Consultant Ecologist	17/01/2025

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Guidelines

This assessment has been designed to meet:

- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> This approach is enshrined in Government planning guidance, for example, paragraph 185 of the National Planning Policy Framework for England.
>
> The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application or support the recommendations for further surveys.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd were commissioned by Wates Group to produce a Habitat Management and Monitoring Plan (HMMP) for a proposed development at Formerly the Deighton Centre, Deighton Road, Huddersfield HD2 1JP (hereafter referred to as the site).

The site has been subject to previous ecological assessment of relevance to this report, comprising:

- A Preliminary Ecological Assessment completed in November 2022 (Arbtech, 2022)
- An Ecological Impact Assessment completed in August 2023 (Arbtech, 2023)
- A Biodiversity Net Gain Assessment most recently updated in December 2024 (Arbtech, 2024)

1.2 Project Description

The planning application pertaining to the site (Kirklees Council Reference: 2023/48/93350/W) describes the development as: '*Development of former Deighton Centre (previously Deighton High School) for a Social Emotional and Mental Health School (use class F1) comprising single and two storey educational buildings; roof mounted photo-voltaic panels; sensory garden spaces; multi-use games areas; landscaping; hardstanding areas; carparking; access with secure fencing and ancillary development'* (hereafter referred to as the proposed development). A plan showing the proposed development is provided in **Appendix 1**.

1.3 Site Context

The site is located at National Grid Reference SE 1619 0156 and has an area of approximately 5.2ha comprising a sports pitch, hardstanding parking woodland, areas of scrub and grassland. It is surrounded by residential areas with patches of woodlands to the north and south. A site location plan is provided in **Appendix 2.**

1.4 Scope of This Report

The aims of this HMMP are to provide the definitive habitat management and monitoring prescriptions to ensure habitats identified during the Biodiversity Net Gain assessment are suitably created and enhanced in accordance with the development and opportunities remain at the site for protected species during the operational phase. Furthermore, the HMMP provides a habitat creation and management plan to ensure the anticipated BNG is achieved over a 30-year management term to ensure the effective installation and long-term success of proposed habitat creation.

2.0 Ecological Baseline Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the EcIA, which culminates the results of all previous ecological survey work at the site to date as listed within the introduction.

2.1 BNG and Proposed Habitat Creation

Landscape proposals for the site include the retention and protection of existing habitats, enhancement of existing habitats, and creation of new habitats. Habitat coverage anticipated post-development is shown on the plan provided in **Appendix 3** and summarised below:

- **Grassland: Modified grassland** – Poor condition – 0.05875ha retained
- **Woodland and forest: Other woodland; mixed** – Poor condition – 0.31505ha enhanced
- **Urban: Developed land; sealed surface** - N/A Other – 0.78407ha created
- **Urban: Artificial unvegetated, unsealed surface** – N/A – Other – 0.34734ha created
- **Urban: Vegetated garden** – Condition Assessment N/A – 0.11912ha created
- **Urban**: **Rain garden** – Moderate condition – 0.00317ha created
- **Grassland**: **Modified grassland** – Poor condition – 0.14214ha created
- **Grassland**: **Other neutral grassland** – Poor condition – 0.03119ha created
- **Woodland and forest**: **Other woodland; broadleaved** – Poor condition – 0.4908ha created
- **Heathland and shrub**: **Mixed scrub** – Moderate condition – 0.14206 created
- **Lakes**: **Ponds (non-priority habitat)** – Moderate condition – 0.00185ha created
- **Wetland**: **Reedbed** – Poor condition – 0.00216ha created
- **Individual Trees: Urban Trees –** Moderate condition - 0.3583ha created.
- **Hedgerows: Non-native and ornamental hedgerows** – Poor condition – 0.377km created

2.2 Scope for Mitigation, Compensation and Enhancement, and Management

Appropriate management of the proposed habitat creation and enhancements are required to ensure the effective installation and long-term success of compensatory habitat creation and enhancement of ecological opportunities at the site. Specific management prescriptions for enhanced and newly created habitats is required to cover a 30-year management term to ensure habitats achieve their target habitat classification and condition to fulfil BNG objectives.

3.0 HMMP

3.1 Mitigation

Mitigation prescriptions to reduce adverse impacts to existing ecological features and biodiversity as identified through previous ecological assessment are detailed in **Table 1** below. These mitigation prescriptions can be read in conjunction with the Construction Ecological Management Plan (Arbtech, 2025).

Table 1: Habitat Mitigation

Mitigation	Specification
Persons Responsible and Lines of Communication	A Development Biodiversity Champion will be selected for the site preparation, demolition, and construction phase of the development. The Development Biodiversity Champion will be someone with significant influence on site, such as the contract or project manager. The Development Biodiversity Champion will be responsible for ensuring all actions outlined in this document are implemented. Any queries with regards to the mitigation and enhancement prescriptions will be addressed to the project ecologist and communication will be retained between the Development Biodiversity Champion and project ecologist throughout the project. The project ecologist's contact details are located on the title page of this report. The Development Biodiversity Champion will be responsible for understanding when an Ecological Clerk of Works is required on site to supervise works, requirements of which are detailed within each mitigation section where necessary. Once the development is complete, a Post-Development Biodiversity Champion will be allocated who has influence on site during the operational phase, such as a long-term maintenance contractor or landowner. The Post-Development Biodiversity Champion will be responsible for ensuring all recommended management is undertaken and any associated remedial measures are completed where necessary.
Post-Development Site Visits	Post-development site visits by a Suitably Qualified Ecologist (SQE) will be undertaken covering a 30-year management term to confirm the successful installation and management of landscaping and species-specific enhancements. Visits will be completed on years 1, 2, 5, 10, 15, 20, 25, and 30 following development occupation. A report will be produced by the SQE detailing the results of each site visit including photographs and any remediation requirements. Where remediation is necessary, additional evidence may need to be provided to ensure remediation is applied effectively. Depending on the scale of the required remediation, additional evidence may comprise an additional site visit by an SQE or photographic evidence to be provided by the Post-Development Biodiversity Champion. This requirement will be defined based on the results of each site visit. Once the SQE confirms that the biodiversity enhancements have been installed correctly, no further site visits will be necessary following the year 5 visit. The Post-Development Biodiversity Champion will then be responsible for correctly managing ecological features at the site in accordance with this LEMP alongside identifying and implementing remediation measures as part of the ongoing management of the site.
Legal Responsibility	It is expected that compliance with this HMMP will be legally enforced through a Section (S) 106 agreement. As part of this legal agreement, habitat creation and management detailed within this HMMP will need to be retained and appropriately managed for the entire 30-year term to meet legislative objectives outlined in

	the Environment Act (2021). Should any future development at the site be proposed that will impact habitat management subject to the S106 agreement, this will need to be considered and suitably compensated for in accordance with future proposals.

3.2 Habitat Creation and Management

Best practice habitat creation and management over a 30-year term to ensure a BNG consistent with that reported within the BNG Assessment is provided in **Table 2** below. The final BNG Habitat Plan is provided in **Appendix 3**.

Table 2: Habitat Creation and Management Prescriptions

Ecological receptor	Specification
Habitats with N/A or poor target conditions	It is noted that developed land; sealed surface, artificial unvegetated; unsealed surface and vegetated gardens do not require any specific management to achieve their BNG objective. This is because developed land; sealed surface and artificial unvegetated; unsealed surface is of negligible biodiversity unit value and the future management of vegetated gardens cannot be secured through an S106 agreement. Management prescriptions for these habitat types are not included in this HMMP.
Wildflower meadow (g3c - other neutral grassland) *Created – 0.14214ha* **Amenity grassland** (g4 -modified grassland) *Retained – 0.14214ha* *Created – 0.05875ha*	***Overview*** An area of 0.03119ha of other neutral grassland will be created in the northwestern area of the site alongside the retained woodland, as shown on the proposed landscape plans (**Appendix 1**) and habitat creation plan (**Appendix 2**). An area of 0.05875ha of modified grassland will be retained along the eastern boundary of the site. An area of 0.14214ha of modified grassland will be created throughout the central and northwestern areas of the site, as shown on the proposed landscape plans (**Appendix 1**) and habitat creation plan (**Appendix 2**). ***Objectives*** • To create a successful grassland that will provide habitat for pollinating invertebrate species, that will in turn, provide foraging opportunities for protected and/ or notable species groups including amphibians, bats, birds, invertebrates and hedgehogs. • Employ techniques that use organic fertilizers and minimise the use of chemicals wherever possible.

Creation Method - Wildflower meadow (other neutral grassland)

Ground preparation

It is recommended that a soft strip of the current vegetation present is undertaken and removed from the area to provide a bare soil substrate for sowing the seed mix. The bare soil will be subject to light rolling or trampling to provide a firm base for seeding.

Seeding

- To be undertaken in the spring between April and May. The following seed rates are recommended:
- 40 kg/ha of a wildflower and grass seed mix.
- Inclusion of yellow rattle Rhinanthus minor in the seed mix will help suppress vigorous grass growth that may suppress the success of wildflowers within the sward.

Proposed seed mix:

A combination of two seed mixes is proposed. Specifically, a 50/50 mix of Emorsgate General Purpose Seed Mix EM2 and Emorsgate Mixture for Clay Soils EM4 are proposed to be utilised. This combination of seed mixes will help create a minimum of 9 species per m2 of grassland and retain a species composition consistent with the UKHabs definition of other neutral grassland. The proposed seed mix combination includes numerous grassland and wildflower species suitable for neutral and clay dominated soils. Notably, the species mix includes yellow rattle which is known to suppress dominant grass species which will allow existing grasses within the seed bank to colonise whilst preventing dominance and thus increasing species diversity per m2. For exact specifications, please refer to: https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/standard-general-purpose-meadow-mixture/ and https://wildseed.co.uk/product/mixtures/complete-mixtures/meadow-mixtures-for-specific-soils/meadow-mixture-for-clay-soils/

Alternative mixture

Alternatively Woodland and Heavy Shade Wildflower seed mix LW8M 80/20 can also be recommended, as this mix will also tolerate any shade from the woodland. This mixture contains 6 meadow grasses and 24 flowering species. https://www.wildflower.co.uk/products/wildflower-seed-mixtures/80-20-wildflower-meadows-seed-mixtures/lw8-woodland-heavy-shade-80-20.html

Creation Method – Amenity grassland (modified grassland)

Ground preparation

There are two main areas of proposed grassland planting, in the northwestern corner and within the amenity spaces in the centre of the proposed site. It is recommended that a soft strip of the current vegetation present is undertaken and removed from the area to provide a bare soil substrate for sewing the seed mix. The bare soil will be subject to light rolling or trampling to provide a firm base for seeding.

Seeding

- To be undertaken in the spring between April and May or in the Autumn between September and October.
- The following seed rates are recommended: 40kg/ha or 4g/m2

Proposed seed mix:

It is proposed to seed the garden grassland with Emorsgate EM2 General Purpose Meadow Mixture. This seed mix contains 5no. grass species and 15no. wildflower species. The mixture contains no dominant grass species. Due to this diversity and absence of dominant species, the number of grass and wildflower species present per m2 is increased; it is therefore considered reasonable to assume a species diversity of 6-8 species per m2. For exact specifications, please refer to: https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/standard-general-purpose-meadow-mixture/

Recommended management prescriptions over a 30-year term:

Table 3.1. Wildflower meadow management prescriptions.

Management	When	Rationale
Cut meadow Every 2-3 years, with no more than 50% of the grassland cut each year. This will continue to maintain the tussocky sward for species such as reptiles and mammals and prevent over encroachment. This will only be cut during the hibernation season Oct-March to a height of 100mm and all arising removed	Winter months.	This ensures the meadow does not grow excessively long and become rank but allows wildflowers to set seed and invertebrates to breed. This will also allow a diverse sward of varying lengths to naturally occur in accordance with growth characteristics of each species. Cuts will be during winter to avoid killing fauna such as reptiles within the grassland. Cutting will also follow a routine as demonstrated with the CEMP to prevent entrapping and killing any wildlife within the meadow.
Cut grass as to provide a heterogeneous habitat structure aiming to maintain at least 20% of grass <7cm and 20% >7cm. As such, each cutting phase must cut 20% of the area to ground level, 60% of the area to 15cm, and the remainder to 30cm. These areas must be rotated each year to maintain a diverse sward.	Late March / early April and– late August/ early Sept	To retain a diverse sward whilst limiting impacts to protected species potentially present at ground level and ensuring the natural germination of seeds.
Turn and dry the cut grass over 3-5 days before removing arisings off Site	Post cut .	This allows the seeds to drop encouraging species diversity and invertebrates to relocate unharmed. Cuttings will have to be removed to prevent nutrient enrichment of the soil which will affect meadow quality
Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will encourage vigorous grasses and weeds to grow or cause large areas of bare ground due to inhospitable growing conditions

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Recommended management prescriptions over a 30-year term:

Table 3.2. Modified Grassland Management Prescriptions EM2 mixture areas.

Management	When	Rationale
Cut monthly during the growing season	Between April and October	Cutting monthly will allow a neat a tidy appearance whilst allowing more species to effectively colonise.
Turn and dry the cut grass over 3-5 days before removing arisings off Site	Following cuts in May and September.	This allows any seeds present seeds to drop encouraging species diversity and invertebrates to relocate unharmed.
Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will encourage vigorous grasses and weeds to grow or cause large areas of bare ground due to inhospitable growing conditions,

</td></tr>
<tr><td>**Other woodland; broadleaved**</td><td>

Overview

It is proposed to enhance 0.31505ha of the existing woodland from poor to moderate conditions and create 0.4908ha of poor condition broadleaved woodland.

Objectives

- To enhance the other woodland; mixed along the northern boundary from poor to moderate condition by targeting the following condition scores in accordance with the Woodland Habitat Type Condition Sheet and BNG Assessment: A - 2; B - 3; C - 3; D - 3; E - 3; F - 2; G - 2; H - 2; I - 2; J - 2; K - 1; L - 2; M - 2; TOTAL = 27.
- To create woodland that will provide roosting, pollinating, foraging, commuting, and refuge opportunities for protected and/ or notable species groups including badgers, hedgehogs, herptiles, invertebrates, bats, and birds.
- To undertake landscaping works in compliance with BS 4428:1989 – The Code of Practice for General Landscape Operation.

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Recommended management prescriptions over a 30-year term:

Table 3.3: *Woodland management prescriptions*

Management	When	Rationale	BNG condition criteria compliance
Remove all invasive species from the woodland including the existing rhododendron and Japanese knotweed,	Year 1	To remove all non-native, invasive species from the woodland	C
Remain vigilant for the return of non-native invasive species and ensure any new stands are removed as soon as is possible.	To be monitored annually over the 30-year term in late autumn.	To maintain an absence of non-native, invasive species from the woodland.	C
Ensure young and middle-aged trees are left to develop naturally with little human intervention to ensure they develop features consistent with veteran trees.	To be monitored annually over the 30-year term in late autumn.	Maintain a regenerating woodland containing multiple age classes and a three storey (upper, middle, lower) or complex (unstratified) structure, with at least 2 veteran trees per block of woodland retained as existing trees or promoted as future veterans. Ensure tree mortality remains under 10% and pests, diseases and crown die back are prevented insofar as possible.	A, H, J, & K
Use rabbit fencing, dead hedging, protective tubes, and tree guards for young trees.	Year 1. Monitor for damage and breaches annually over the 30-year term in late autumn.	To ensure browsing pressure from deer, rabbit and squirrel does not prevent regeneration or significant deterioration of woodland and is kept at below 20% of extant vegetation	B
Leave all naturally occurring deadwood in-situ	At all times.	To ensure a frequent source of deadwood at varying degradation states.	L
Maintain a species rich woodland with five or more native tree species. A woodland survey will be undertaken by the SQE during the post-development sites visits after year 1, 2, & 5	Year 1, 2 and 5 following occupation.	To maintain a high diversity woodland landscape of benefit to a wide range of species that is of a locally appropriate species	D & I

	following occupation. Remediation may require new native tree planting.		assemblage. To maintain local ecological integrity and preserve native semi natural communities, in the aim of conforming to a locally appropriate NVC subtype.	
	Maintain a woodland with three layers, comprising the canopy layer, a shrub layer, and ground flora. A woodland survey will be undertaken by the SQE during the post-development sites visits after year 1, 2, & 5 following occupation. Remediation may require new native shrub planting and utilisation of a ground flora seed mix within redundant open areas for enhancement.	Year 1, 2 and 5 following occupation.	To maintain a high diversity woodland landscape of benefit to a wide range of species that is of a locally appropriate species assemblage. To maintain local ecological integrity and preserve native semi natural communities, in the aim of conforming to a locally appropriate NVC subtype.	J, I, & E
	Glades will be created via selective thinning and planting in woodland. Thinning to be undertaken in rotation to create temporary areas of open woodland space covering between 10 and 20% of the woodland coverage. A woodland survey will be undertaken by the SQE during the post-development sites visits after year 1, 2, & 5 following occupations. Remediation may require additional thinning.	Coppicing of under shrubs in selected locations for thinning to occur annually in late autumn on up to 9-year rotation.	To enhance structural diversity, facilitate higher light levels and provide habitat value for clearing specialists via selective thinning and coppicing in an aim of maintaining around 20% of open space.	F
	Ensure no fertilisers are used and any rubbish is cleared from site including tree guards once defunct. No livestock should ever enter the woodland.	At all times.	No nutrient enrichment or damaged ground (e.g. trampling, compaction, machinery or animal poaching, litter) should be evident. evident	M
Tree and Shrub Planting *Created – 0.3583ha*	***Overview*** It is proposed to create a coverage of 0.3583ha of individual trees of moderate condition respectively, totalling 88 small trees across the site. New native tree and shrub planting and a combination of both native and ornamental shrubs are proposed across the site within the BNG proposal (see **Appendix 1 and 2**). This will focus primarily to include a range of native species, such as English oak, beech, chestnut, birch, hazel and hawthorn.			

Ornamental species such as laurel, rhododendron and non-native cotoneasters listed on the schedule 9 invasive species list must be avoided.

Objectives

- To plant a range of trees and shrubs that will provide pollinating, foraging, commuting, and refuge opportunities for protected and/ or notable species groups including amphibians, bats, birds, hedgehogs, and reptiles.
- To achieve a moderate condition for newly planted trees by passing condition criteria A, B, & F (as a minimum) in accordance with the Individual Trees Habitat Type Condition Sheet and BNG Assessment.
- To undertake landscaping works in compliance with BS 4428:1989 – The Code of Practice for General Landscape Operation.

Creation Method

Ground preparation and planting

The locations for tree planting will be cleared and reduced to compacted permeable bare ground in preparation for planting. Planting substrate must comprise site won material with any deficiencies made up with imported topsoil compliant with BS 3883:2015. Each tree will be pit planted upright within the centre in accordance with BS 4428:1989, within a hole at last 500mm greater than the root system when fully spread and at a depth 250mm greater that the root system. Root balls will be soaked thoroughly in water and loosened to expose restricted roots before planting. The planted trees will then be backfilled ensuring there are no air pockets around roots or any roots protruding out of the ground.

Timing

The land will be prepared during the summer ready for planting between November and March. Planting trees before the new year helps ensure better rooting and subsequent establishment including faster growth during the first growing season.

Recommended management prescriptions over a 30-year term:

Table 3.4. *New tree planting management prescriptions.*

Management	When	Rationale	BNG condition criteria compliance
Prepare panting area in summer, in preparation from autumn/ winter planting.	Year 1 – June/ July/ August	To ensure the ground is dry and workable.	n/a
Plant native trees only within prepped areas in Autumn, whereby the canopy over sails vegetation	Year 1 – September/ October/ November	To ensure trees take root and establish prior to the first growing phase the following spring.	A & F
Standard trees will be staked and tied using a 75mm diameter stake with the bark removed. The stakes will be long enough to allow for 600mm of the stake to be driven into each pit. Stakes will be fitted prior to tree planting to prevent root damage.	Year 1 – Immediately prior-to planting.	Protect roots from damage.	B & D
Ensure the steaks and ties are not restricting growth and are not damaged. Replace where necessary.	Year 2 onwards – Checked annually for the first 5 years.	Ensure growth isn't stunted.	B & D
Remove steaks and ties.	Year 5 in Spring – April/ May	Allow trees to grow unperturbed once established.	B & D
Removal of spent flowers to be removed through 'deadheading'	Years 1 – 5 - Twice annually, late spring and in the Autumn.	Allows trees to place more energy into re-growth.	B & D
At the end of each growing season all plant failures are to be 100% replaced	Year 2 onwards - Checked Annually for the 30-year term after each growing season in Autumn.	To ensure the success of planted trees.	B & D
Remove weeds	Year 2 onwards - Checked Annually for the 30-year term after each growing season in Autumn.	Reduce competition for resources nutrients etc.by weeds	B & D
Application of bark mulch at a depth of	Year 2 onwards - Checked Annually	Reduce competition for resources	B & D

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<tr><td>50 mm</td><td>for the 30-year term after each growing season in Autumn.</td><td>nutrients etc.by weeds</td><td></td></tr>
<tr><td>Do not apply chemical fertilisers</td><td>At all times.</td><td>The use of chemical fertilisers will encourage vigorous grasses and weeds to grow</td><td>D</td></tr>
<tr><td>Watering should be undertaken before and after planting out and as necessary for the continued thriving of all planting.</td><td>Annually for the 30-year term when required following prolonged periods of draught.</td><td>Ensures plants do not dry out and subsequently fail.</td><td>B</td></tr>
<tr><td>Undertake any pruning requirements outside of the nesting bird season, which is between March and September inclusive.</td><td>At all times.</td><td>Ensure no active bird nests are impacted by maintenance works.</td><td>E</td></tr>
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<tr><td>Rain garden (Sustainable Urban Drainage System)

Created – 0.00317</td><td>
Overview:
It is proposed to create 0.00317ha of rain garden in the form of a SuDs Basin in the southeast of the site, as shown as the landscape plan provided in Appendix 1.

Objectives:
• To create a rain garden feature of moderate condition in accordance with the BNG Assessment.
• To provide a landscape feature that will allow the management of water levels on site that will both aid with water drainage and will the management of adjacent habitats to benefit wildlife.

Creation Method:
It is recommended that the rain garden is installed in accordance with current industry standard best practice guidelines published by the Construction Industry Research and Information Association (CIRIA). Specifically, the SuDS basin should be installed as set out in CIRIA guidance document: The SuDs Manual (2015).

Management prescriptions over a minimum 30-year term:
It is noted that management of the rain garden required to achieve a moderate condition in accordance with the BNG assessment is predominantly associated with management of adjacent vegetation. The management of vegetation already detailed in this table is suitable for achieving a moderate condition for the SuDS Basin. Further management measures in respect of the permanently wet areas of SuDS basin are detailed below.
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Recommended management prescriptions over a 30-year term:

Table 3.5: SuDS management prescriptions.

Management	Detail	Rationale
Undesirable weed growth should be cut back regularly upon the banks and amongst emergent vegetation.	Twice annually in early March/ and in Autumn	Encourages establishment of good perennial ground cover and precent colonisation of non-native species.
When removing vegetation, do not focus on one plant community but evenly remove from all to maintain a suitable habitat and species diversity.	Twice annually in early March/ and in Autumn	Ensure not just one habitat within the pond is removed at the same time
Keep approximately 90% of the water surface free of dense macrophyte coverage.	Check annually in Autumn	To prevent significant duckweed and other filamentous algae coverage; amphibians use open water for breeding display.
Remove plant detritus and litter	Check annually in Autumn	Prevents organic matter and litter building up and preventing exposure to sunlight.
Remove non-native or other unwanted plants and dispose. Where possible rinse the removed plants and replace water in the pond	Check annually in Autumn	Prevents organic matter building up Puts back wildlife in pond living within the removed plants
Never artificially stock with fish	At all times	Fish predate amphibians and their young.
Never introduce frog spawn	At all times	To prevent the transfer of disease

Mixed scrub

Overview

It is proposed to create 0.14206ha of mixed scrub across the site as shown in **Appendix 2.**

Objectives

- To create mixed scrub of moderate condition in accordance with the BNG Assessment.
- To plant native scrub that will provide pollinating, foraging, and refuge opportunities for protected and/ or notable species groups including amphibians, bats, birds, hedgehogs, invertebrates, and reptiles.

Creation Method

Ground preparation and planting

Each new scrub sapling will be panted within a hole three times as wide as the supplied pot and of a similar depth. Root balls will be loosened to exposed restricted roots and oaked thoroughly in water before planting. The planted saplings should then be backfilled ensuring there are no air pockets around roots or any roosts protruding out of the ground.

Timing

Planting will be undertaken between November and March. Planting shrubs before the new year helps ensure better rooting and subsequent establishment including faster growth during the first growing season the following Spring and Summer.

Plant Sourcing and Density

Plants must be sourced from a local supplier and be of local provenance. It is recommended that new plants are planted in groups of three at a density of 3 plants per m^2.

Recommended management prescriptions over a 30-year term:

Table 3.6: New scrub management prescriptions.

Management	When	Rationale
Rotational coppicing of the scrub, whereby a separate 20% section of the scrub is cut to ground level each year.	Annually in early Spring,	To prevent a homogenous habitat structure and retain open glades.
At the end of each growing season all plant failures are to be 100% replaced	When required; checked annually in Autumn.	To maintain amenity and wildlife value.
If required, provision of stakes and guards. Guards to be left on for a minimum of 5 years	Immediately after planting.	Protect from damage

		Stakes should be checked and any broken or damaged stakes during this time would be removed (as above) and replaced with ties re-fixed	When required; checked annually in Autumn.	Maintain protection
		Remove weeds	When required; checked twice annually in early spring and in Autumn.	Reduce competition for resources nutrients etc.by weeds
		Application of bark mulch at a depth of 50 mm	Immediately after planting and then when required; checked annually in Autumn.	Reduce competition for resources nutrients etc.by weeds
		Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will encourage vigorous grasses and weeds to grow
		Watering should be undertaken before and after planting out and as necessary for the continued thriving of all planting.	When required; provide more water during periods of draught and less water during times of prolonged rain.	Ensures plants do not dry out and subsequently fail.
		Check and replace any plant failures once a year	For the first 5 years	To ensure no gaps form.
Pond creation	***Overview*** A pond measuring 0.0019ha will be created on site, as shown on the landscape plans provided in **Appendix 1 & 2**. ***Objectives*** • To create a pond of moderate condition in accordance with the BNG Assessment; • To develop habitat suitable to support a range of protected and/ or notable species including; aquatic and terrestrial invertebrates; amphibians; and reptiles. • To create a pond in accordance with current guidance provided by the Freshwater Habitat Trust as detailed within the following			

documents: *Pond Creation Tool Kit Sheet 4: Pond Design*[1] and *Creating Ponds for Amphibian and Reptiles*[2]. To achieve this, the following core structural principals will be adhered to for pond creation. **Figures 1**, **2, and 3** below exemplify the benefits of these key structural principles.

a. Ensure that almost all pond slopes are shallow, less than 1:5 (12°) and preferably less than 1:20 (3°);
b. Create underwater bars and shoals to benefit aquatic plants;
c. Ensure a clean water supply;
d. Create variable pond depths;
e. Plant submerged and emergent vegetation;
f. Ensure an absence of fish; and
g. Attempt to deter Water fowl from utilising ponds.

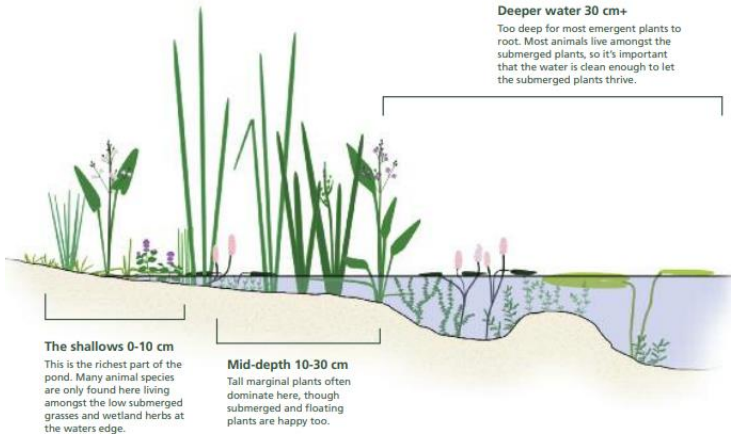

Figure 1: A schematic representation of pond characteristics that provide the best opportunities for biodiversity. Reproduced from the *Pond Creation Tool Kit Sheet 4: Pond Design* guidance document.

[1] https://freshwaterhabitats.org.uk/wp-content/uploads/2013/09/pond-design.pdf

[2] https://freshwaterhabitats.org.uk/wp-content/uploads/2013/09/Amphibians-_Common-Toad-Great-Crested-Newt-and-Grass-Snake_-new-logo.pdf

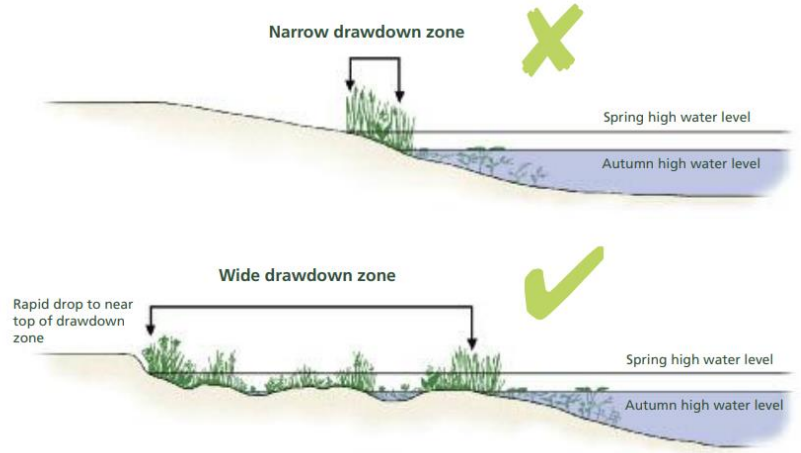

Figure 2: A schematic representation of an optimal pond drawdown zone. Reproduced from the *Pond Creation Tool Kit Sheet 4: Pond Design* guidance document.

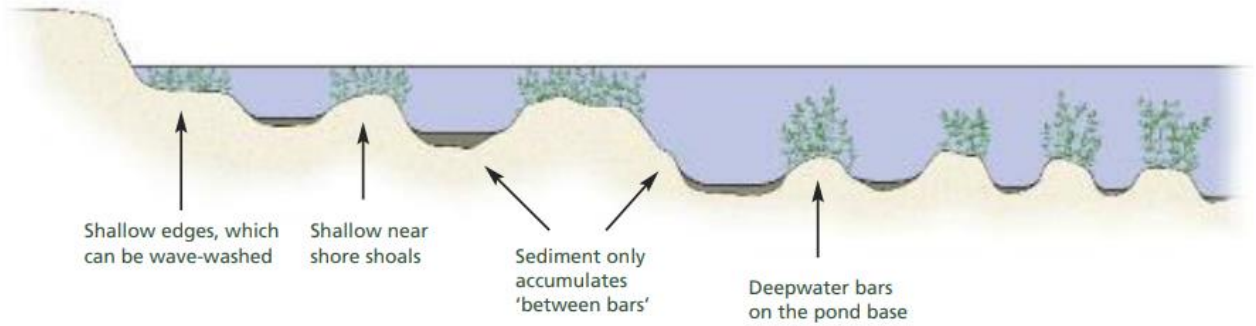

Figure 3: A schematic representation of the value of internal shoals/ islands that prevent domination of sediment accumulation. Reproduced from the *Pond Creation Tool Kit Sheet 4: Pond Design* guidance document.

Creation Method

- Should the underlying ground be loamy and subsequently free draining, a pond liner permeable to vegetation growth will be used to ensure effective water retention.
- The initial shape of the pond will be dug out using suitable machinery for the size of the pond, such as a small digger.

- More refined alterations to the pond structure will then be created using more refined tools; this is best done using hand tools.
- Once the shape and structural diversity of the pond has been established the pond will be planted with emergent vegetation and subsequently filled with water using a clean water source.

Recommended management prescriptions over a 30-year term:

Table 3.7: Pond management prescriptions

Management	Detail	Rationale	BNG condition criteria compliance
Weed growth will be cut back regularly upon the banks and amongst emergence vegetation.	Twice annually in early March/ and in Autumn	Encourages establishment of good perennial ground cover and prevents colonisation of non-native species.	6, & 9
When removing vegetation, do not focus on one plant community but evenly remove from all to maintain a suitable habitat and species diversity.	Twice annually in early March/ and in Autumn	Ensure not just one habitat within the pond is removed at the same time	3, 6, & 8
Keep approximately 90% of the water surface free of dense macrophyte coverage.	Check annually in Autumn	To prevent significant duckweed and other filamentous algae coverage; amphibians use open water for breeding display.	1, 3, & 6
Remove plant detritus and litter.	Check annually in Autumn	Prevents organic matter and litter building up and preventing exposure to sunlight.	1 & 8
Remove non-native or other unwanted plants and dispose. Where possible rinse the removed plants and replace water in the pond.	Check annually in Autumn	Prevents organic matter building up Puts back wildlife in pond living within the removed plants	6
Will the pond freeze over a hole in the ice will be created.	Check annually in Winter	Allows air breathing wildlife to gain oxygen	n/a
Never artificially stock with fish.	At all times	Fish predate amphibians and their young.	7

Reedbeds

Overview

New areas of reedbed, are to be created within the areas of open space as shown as wet shrub mix on the landscape plans provided in **Appendix 1**.

Objectives

- To create reedbeds of moderate condition in accordance with the BNG Assessment.
- To create a dense reedbed that will provide foraging, commuting, and refugia opportunities for notable species groups including bats, birds, and invertebrates.
- Ensure cultural techniques are employed which use a variety of mulches and organic fertilisers and which minimise the use of chemicals and peat wherever possible.
- To create a reedbed in accordance with guidance provided by the Royal Society of the Protection of Birds (RSPB) as detailed within the following document: Bringing Reedbeds to Life: Creating and Managing Reedbeds for Wildlife (RSPB 2014).
- To create a reedbed that provides the following approximate habitat proportions in accordance with RSPB guidance: 1) around 25-30% open water; 2) around 40-50% of reeds to be wet year-round; 3) 10-15% drier reed.
- To ensure there are permanently wet open water sections in accordance with RSPB guidance that are approximately 1-1.5m in depth during the summer and 1.5-2m in depth during the winter. Thought should be given to allowing the addition and removal of water when required; water can be added from a clean water source and water removal could comprise the drainage of water into the adjacent SuDS basin.

Creation Method:

Ground preparation

The water level should be just above soil surface prior to planting. Where good water level control is already established, limited ground preparation is required as the existing water levels will discourage most terrestrial plant species and subsequently limit competition significantly. It is therefore recommended that the desired ground water level is achieved prior to planting. Should the desired water level not currently be present, the removal of current vegetation coverage and subsequent turning of topsoil should be undertaken prior to raising water levels.

Planting

It is recommended that pre-germinated seedlings are planted for improved chances of effective colonisation. Seedlings are best planted at a density of 1-4 seedlings/ m^2. Seedlings should be planted by hand in holes approximately three times as wide as the supplied pot.

Timing

Seedling planting should be undertaken during the late spring/ summer in May or June to enhances chances of successful establishment.

Recommended management prescriptions over a 30-year term:

Table 3.8. Reedbed creation/management prescriptions.

Management	When	Rationale
At the end of each growing season all plant failures are to be 100% replaced	When required; checked annually in Autumn.	To ensure effective colonisation and to maintain competitive dominance.
To manage water levels to ensure water levels are higher in winter and lower during the summer	When required; checked twice annually, in July and January.	To help prevent significant accumulation of litter that could provide a substrate for undesirable terrestrial vegetation
To cut the reedbed using hand tools only.	Annually during the winter in January.	To aid the generation of new shoots whilst allowing existing plants to regenerate. Winter cutting helps ensure competitive dominance and will not impact nesting birds potentially present.

Hedgerows

Overview

It is proposed to create 0.377km of non-native and ornamental hedgerows in poor condition.

Objectives

- To create hedgerows that will provide pollinating, foraging, commuting, and refuge opportunities for protected and/ or notable species groups including badgers, hedgehogs, herptiles, invertebrates, bats, and birds.
- To undertake landscaping works in compliance with BS 4428:1989 – The Code of Practice for General Landscape Operation.

Creation Method

Ground preparation

Prepare the ground by digging over a strip approximately 60-90cm (2-3ft) wide and one spit (or spade blade) deep. Soils that become waterlogged in winter may require a permanent drainage system. Alternatively, form the soil into a ridge about 15-20cm (6-8in) high and 50-70cm (20-28in) across to plant into.

Planting

Plants should be positioned set back from hardscaped boundaries to allow space for the hedgerow to develop and mature prior to requiring any significant management/ cutting back. Plant density should focus on achieving a hedgerow width >1m; as such, plants should be planted in a staggered double row approximately 45-60cm apart, where individual plants are planted 90cm apart within each row.

Timing

It is best to prepare the land during the summer ready for planting between November and March. Planting before the new year helps ensure better rooting and subsequent establishment including faster growth.

Recommended management prescriptions over a 30-year term:

Table 3.9: *Hedgerow management prescriptions.*

Management	When	Rationale
At the end of each growing season all plant failures are to be 100% replaced	When required; checked annually in Autumn.	To maintain amenity and wildlife value.
If required, provision of stakes and guards. Guards to be left on for a minimum of 5 years	N/A	Protect from damage
Stakes should be checked and any broken or damaged stakes during this time would be removed (as above) and replaced with ties re-fixed	When required; checked annually in Autumn.	Maintain protection
Remove weeds	When required; checked twice annually in early spring and in Autumn.	Reduce competition for resources nutrients etc.by weeds
Application of bark mulch at a depth of 50 mm	Immediately after planting and then when required; checked annually in Autumn.	Reduce competition for resources nutrients etc.by weeds
Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will encourage vigorous grasses and weeds to grow
Apply a light dressing of well-rotted manure	Annually in the winter	Note the overuse of manure fertilisers will encourage vigorous grasses and weeds to grow.
Watering should be undertaken before	When required; provide	Ensures plants do not dry out and

		and after planting out and as necessary for the continued thriving of all planting.	more water during periods of draught and less water during times of prolonged rain.	subsequently fail.
		Check and replace any plant failures once a year	For the first 5 years	To ensure no gaps form.
		A minimum 1m strip of natural vegetation will be maintained on either side of the hedgerow base.	At all times.	To maintain a valuable ground flora.

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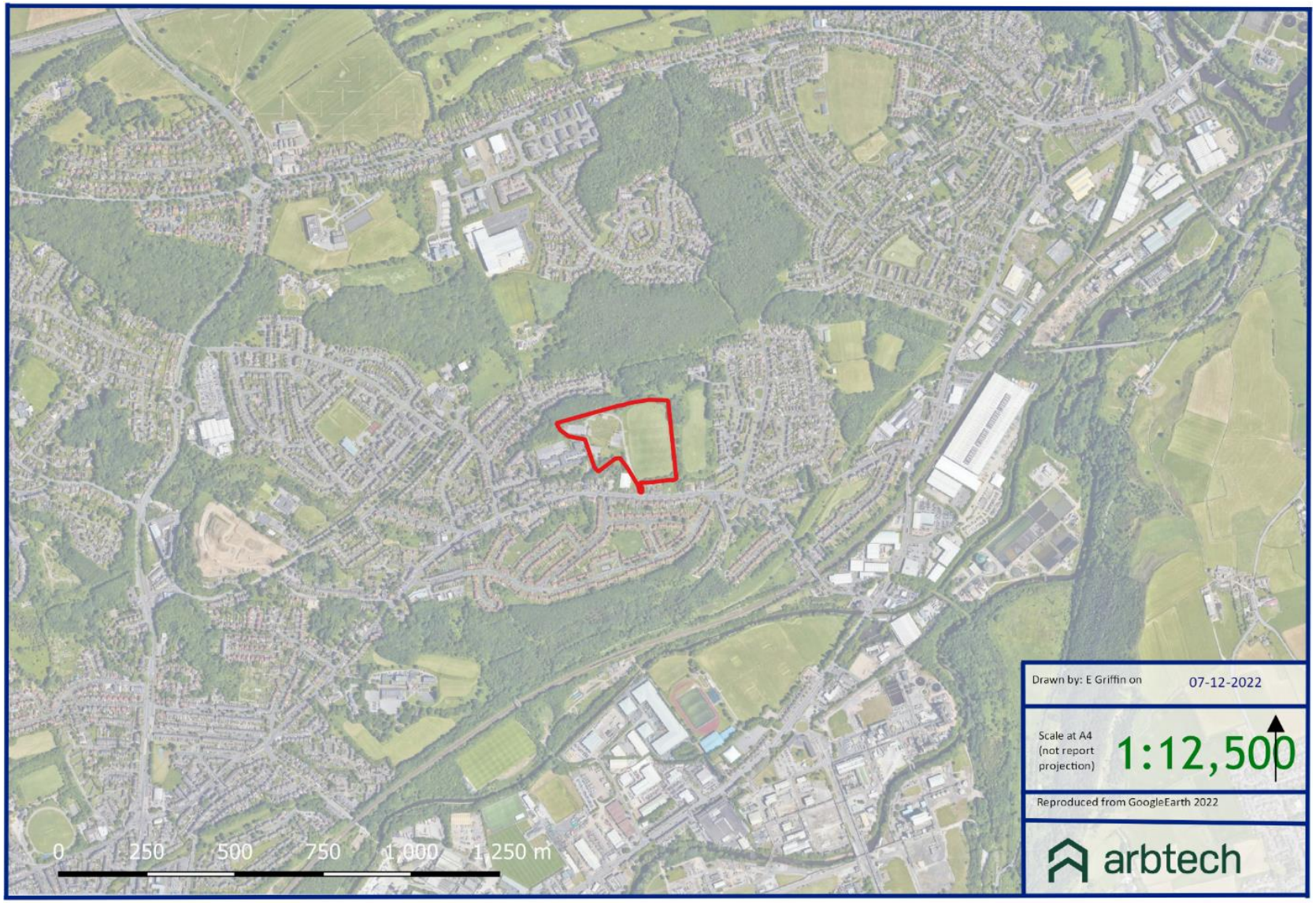
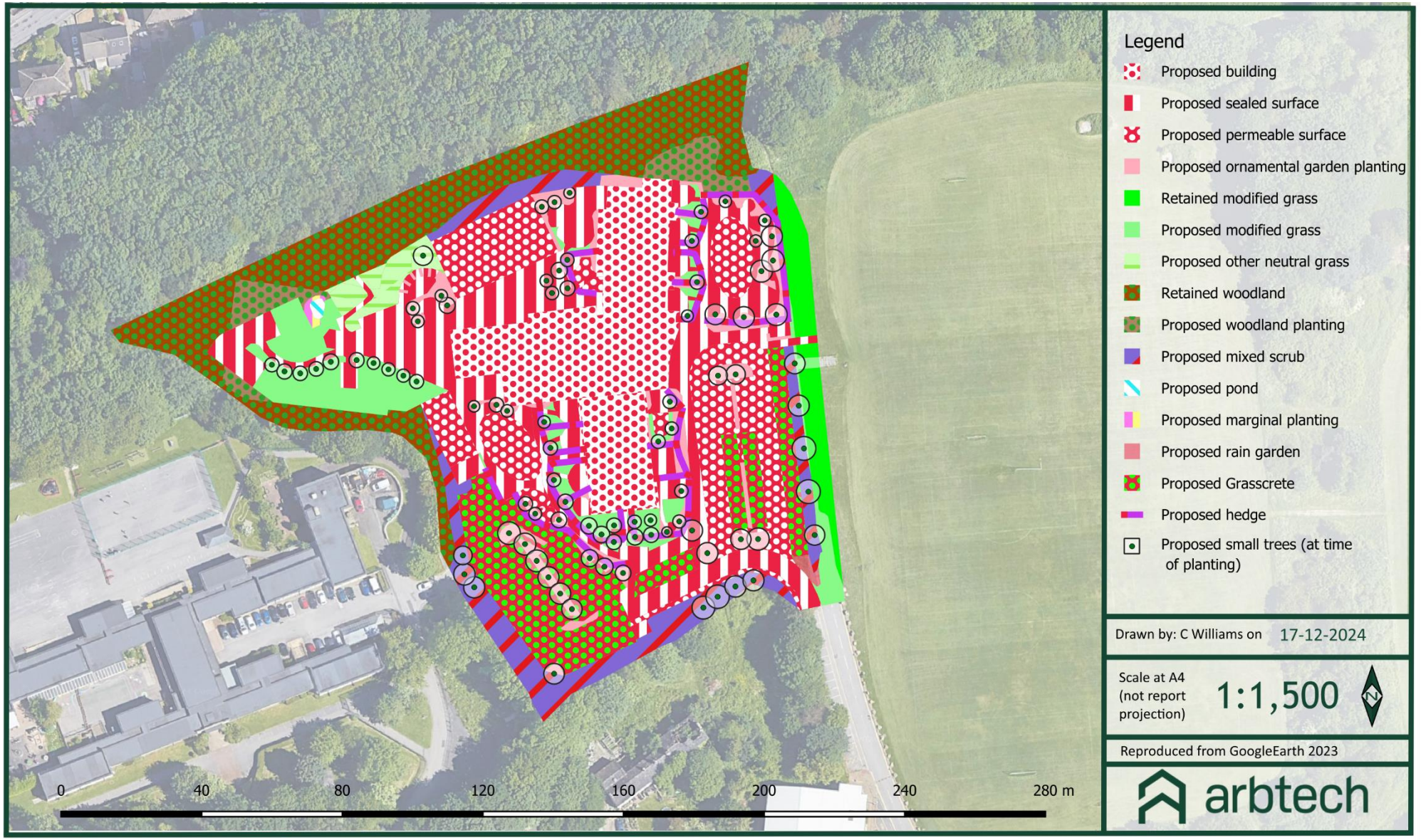
Appendix 1: Proposed Landscape and Development Plan

Appendix 2: Site Location Plan



Appendix 3: Post Development Habitat Plan



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive the, Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe in order to conserve the 189 habitats and 788 species (non- bird) identified in Annexes I and II of the Directive (as amended).

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species.
SACs and SPAs up to 12 nautical miles (nm) from the coast are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2010 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, the requirements of Habitats Directive are implemented through a combination of the 1994 and the 2010 (reserved matters) Regulations. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a means for designating and protecting SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres” however they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.
-

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers Meles meles are protected under The Protection of Badgers Act which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency for any development works liable to affect an active badge sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agency's to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds.
This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:
Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.
Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and reptiles)
The sand lizard Lacerta agilis, smooth snake Coronella austriaca, natterjack toad Epidalea calamita, pool frog Pelophylax lessonae and great crested newt Triturus cristatus receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder Vipera berus, grass snake Natrix natrix, common lizard Zootoca vivipara and slow-worm Anguis fragilis. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water voles

The water vole Arvicola terrestris is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are liable to affect habitats known to support water voles, the relevant countryside agency must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency (e.g. Natural England) for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters Lutra lutra are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

An EPSM Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
-

Effects on development works:

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Dormice

Dormice Muscardinus avellanarius are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White clawed crayfish

The white clawed crayfish Austropotamobius pallipes receives partial protection under Schedule 5 of the WCA in respect of Sections 9(1) and 9(5). This makes it an offence to:

- Intentionally take (capture) white-clawed crayfish.

Effects on development works:

The relevant countryside agency will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species

- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

An EPSM licence will be required from the relevant countryside agency for works which are liable to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site however it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle Cirsium vulgare
- Creeping thistle Cirsium arvense
- Curled dock Rumex crispus
- Broad-leaved dock Rumex obtusifolius
- Common ragwort Senecio jacobaea

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.