Waterswallows Lane, Buxton
Landscape and Habitat Enhancement and Management Plan

Pennine Aggregates Ltd

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Contents

1. Introduction

1.1.1 The Landscape and Habitat Enhancement and Management Plan (LHEMP) has been produced on behalf of Pennine Aggregates Ltd in support of a proposed development at Waterswallows Lane, Buxton, hereafter referred to as 'the site'.

1.1.2 Full planning application (Application no HPK/2016/0317) has been granted for the proposed development. The development is located on land to the north west of an electricity sub station on Waterswallows Lane, Buxton, Derbyshire, in accordance with the application (Central National Grid Reference: SK 07572 75472). The development involves the change of use of agricultural land to general industry, including two buildings for storage and processing of sand and stone aggregate products, ancillary office space, vehicular access and turning space for HGV's, staff and visitor parking, and landscaping including a drainage pond.

1.1.3 The Landscape and Habitat Enhancement and Management Plan will provide the necessary information as required to discharge the following conditions:

1.1.4 Planning Condition 5 which states:

"Notwithstanding the plans hereby approved, no development shall be commenced until details of the following have been submitted to and approved in writing by the Local Planning Authority:-

- *External elevation facing details and materials*
- *Hard surfacing*
- *Window and door details*
- *Boundary details, including mounds*
- *Storage bays*

Development shall thereafter be undertaken in accordance with the approved details and implemented prior to any use of the site.

Reason:- To enable the Local Planning Authority to control the development and so safeguard the character and visual amenities of the countryside."

1.1.5 Planning Condition 11 which states:

"Before the commencement of development (including any demolition, site clearance, stripping or site establishment), a comprehensive landscaping scheme shall be submitted to and approved in writing by the Local Planning Authority. Such a scheme shall include full details of any new tree, shrub, hedge, herbaceous and grass planting, giving specification for species, positions, planting sizes and numbers/densities of all new planting. The landscaping scheme so approved shall be fully implemented before the end of the first available dormant season (November to February inclusive) following completion of the development hereby approved. The trees, shrubs and other plants which are planted in accordance with this landscaping scheme shall be properly maintained for a period of 5 years following

planting. Any plants which within this period are damaged, become diseased, die, are removed or otherwise fail to establish shall be replaced during the next suitable season. Reason:- To enable the Local Planning Authority to control the development and so safeguard the character and visual amenities of the countryside."

1.1.6 Planning Condition 12 which states:

"No development hereby permitted shall be commenced until a 'Landscape and Habitat Enhancement & Management Plan', including long term design objectives, management responsibilities, maintenance schedules for the application site edged red has been submitted to and approved in writing by the Local Planning Authority. The approved management plan shall be implemented in accordance with the agreed timescales and thereafter shall be subsequently maintained in accordance with the approved details. Reason:- In the interests of ecology."

1.1.7 This LHEMP should be read in conjunction with latest versions of the following drawings and reports:

- Landscape Soft Proposals, Plant Schedule & Planting Specification, and Maintenance Schedule - Drawings L9014/01 – L9014/10 by Ecus Ltd, December 2016;
- Site Plan, Drawing number Penn/Plan4 by Structural and Technical Systems Ltd, provided to Ecus Ltd on 21 November 2016 by Pennine Aggregates Ltd; and
- Ecological Appraisal – by Ecus, August 2016.

1.1.8 This LHEMP is intended for a 10 year period and should be reviewed and amended as necessary thereafter. The management plan is structured as follows:

- A description of the site and proposed development;
- Design objectives for the landscape and communal areas of the site;
- Maintenance objectives, for the establishment period up to five years, and long-term maintenance objectives for the post-establishment phase for year 6-10years;
- Management responsibilities for the landscape areas; and
- Maintenance Schedule and Specification, outlining the key management objectives, recommended maintenance operations, recommended timings and frequency that these tasks should be undertaken, up to five years and post establishment for 6-10 years.

2. Site Description and Design Objectives

The Existing Site

2.1.1 The development site, centred on National Grid Reference: SK 07572 75472, is located immediately to the west of Waterswallows Lane and to the east of the A6. It is located within a rural location approximately 2 km to the north east of the settlement of Buxton.

2.1.2 The site comprises a plot of land dominated by semi-improved grassland, which is considered likely to have been grazed until the recent past. The grassland is described within the Ecological Appraisal (Ecus, May 2016), with a small area of scattered scrub located close to the north east site boundary. Stone walls bound the site on three sides, with the south western boundary open. A stone wall lies further to the south west, marking the field boundary beyond the site. Pasture and semi-improved grassland are common across fields in the immediate vicinity. Waterswallows Lane passes the north-eastern site boundary.

The Proposed Development

2.1.3 The client proposes a change of use from agriculture to industry, including the construction of two cantilevered buildings for storage and processing of sand and stone aggregate products, ancillary office space, vehicular access and turning space for HGV's, loading bays, staff and visitor parking, and landscaping including a drainage pond. Access to the aggregates facility is off Waterswallows Lane to the north east.

2.1.4 Existing perimeter stone walls are to be retained where these are in good condition. The north western and north eastern boundary stone walls are heavily dilapidated, and will be reinstated and rebuilt along the existing wall alignment, using existing stones where possible. The south eastern stone wall is in good condition and will be retained. A new stone wall is proposed along the south western boundary of the site. Timber post and wire fencing is proposed to be offset from boundary stone walls to the north west and south west.

2.1.5 The proposed development will result in the land take of grassland and scattered scrub to accommodate the building and external surfacing footprint of the development, as well as to facilitate access.

2.1.6 Where possible grassland will be retained with damaged areas reinstated with a tussocky grassland seed mix. Two earth mounds are proposed within the north eastern part of the site, adjacent to Waterswallows Lane, to provide screening of the car parking area and the two buildings. These mounded areas will be seeded with an appropriate wildflower mix.

2.1.7 Trees are proposed along the boundary and throughout the scheme to provide further screening.

2.1.8 Reference should be made to the soft landscaping proposals, included on drawings L9014/01– L9014/07 (Ecus Ltd, December 2016) for details of vegetation proposals and the hard landscaping details shown by drawings L9014/08– L9014/10 (Ecus Ltd, December 2016), for details of the stone wall and fencing. Planting is designed to provide and help soften the visual appearance of the proposed development and better integrate it with its

surroundings, as well as to enhance site biodiversity and habitats for wildlife.

Landscape Design Objectives

Landscape Strategy

2.1.9 To create an attractive setting for the industrial aggregate facility, which will help to soften the appearance of the development, aid integration of the facility within its setting, and provide ecological and wildlife benefit.

2.1.10 The key landscape aims are to:

- Contribute to the successful integration of the development within its environment;
- Soften the built form and provide some visual screening of the development;
- Maintain and enhance existing stone walls which bound the site, and which contribute to its agricultural setting;
- Offer ecological interest through lower intensity management of trees, wildflower meadow, grassland and SuDS vegetation, and to enhance the site ecology and green framework.
- Incorporate native species where possible, to maximise flowering, pollen/nectar production and/or berries/fruit production to benefit invertebrates, birds and small mammals;
- To include species and vegetation that complements the local rural context of the site; and
- To enhance the attenuation pond within the site with aquatic marginal planting and suitable meadow grassland that has a lower intensity maintenance regime and provide ecological benefits.

2.1.11 The design and management objectives for the scheme are detailed below.

2.1.12 The existing boundary stone walls are retained where these are in good condition. Along the north western and north eastern boundaries the stone walls are dilapidated and in need of repair. Here, new stone walls would be rebuilt following the existing alignment and using existing stones where possible. The height, width and style of stone wall are in keeping with those in the local surroundings (see drawing L9014/09 for details), in order to maintain its agricultural setting. A new stone wall is proposed along the south western boundary, where this is currently open across farmland; and together these walls provide a robust and definitive boundary to the development.

2.1.13 Post and wire stockproof fencing is offset from the stone walls to the north west and south west. Land between the stone wall and fencing acts as a landscape buffer to the development, helping to soften the appearance of the scheme, provide some screening, as well as providing ecological and wildlife

benefits. Existing grass is retained and managed as tussocky grassland, with extra heavy standard native trees planted individually or in groups of three throughout the edge of the development.

2.1.14 At the entrance of the development and alongside Waterswallows Lane, two earth mounds are to be developed either side of the access track to provide screening of the car parking area and the buildings and help soften the appearance of the development. These will be no greater than 2m in height, which will provide sufficient screening without being incongruous with the surrounding context. The earth mounds will be seeded with wildflower meadow to provide further softening, as well as ecological and biodiversity value. New trees are to be planted alongside Waterswallows Lane within the north eastern part of the site, to provide additional screening and to soften views of the development.

2.1.15 Within the western corner of the site a drainage attenuation pond is proposed. Marginal aquatic planting will be located along the periphery of the pond, where permanent water is to be located. This will soften the pond edge, and provide valuable ecological and biodiversity benefit. The more gently sloping banks will be seeded with a suitable wet meadow grassland mix, such as Emorsgate EG8 – Meadow Grass Mixture for Wetlands, or similar approved, which will provide further ecological benefit.

2.1.16 Elsewhere, beyond the built elements, existing grassland is retained, and will be maintained and managed as a tussocky grassland, which will increase the biodiversity. Where grassland is damaged or areas of bare earth exist, grassland is to be reinstated with a tussocky grassland seed mix, such as Emorsgate ESG4 – Tussock Grass Mixture, or similar approved

2.1.17 The design intent for the planting is to achieve a simple robust green setting which respects the agricultural context, whilst also acts to soften the appearance of the development and increase biodiversity and the ecological value of the site.

2.1.18 Tree species have been selected to complement the rural context of the site, using a mix of native trees such as Sycamore (*Acer psuedoplatanus*), Alder (*Alnus glutinosa*), Oak (*Quercus robur*) and Small-leaved Lime (*Tilia cordata*), or cultivars of native species such as Purple Beech (*Fagus sylvatica "Purpurea').* Trees will be extra heavy standard trees for a quicker screening effect and immediate habitat structure.

Existing Ecological Features

2.1.19 An extended Phase 1 habitat survey of the site was carried out in August 2016 by Ecus Ltd. Full details of site habitats and the potential for these to support protected or notable species can be found in the original report ('*7729 Land off Waterswallows Lane, Buxton – Ecological Appraisal, Pennine Aggregates. Ecus Ltd, August 2016*'.). A summary has been provided below.

Habitat Types

2.1.20 The 2016 extended Phase 1 habitat survey recorded the following habitat types on or immediately adjacent to the site:

- Semi-improved grassland, and;

- Scattered scrub.

Protected or Notable Species

2.1.21 The 2016 extended Phase 1 habitat survey also assessed the potential of the habitats on or adjacent to the site to support protected or notable species, of which the following protected species interests were identified:

- *Badgers* – this species was not considered to be resident on site, but could potentially utilise the site as part of a wider territory;
- *Birds* – the scattered scrub is considered to have some limited potential to support nesting birds during the bird breeding season; and
- *Brown hare* – this species were considered to be an unlikely receptor, but a precautionary approach to works was recommended.

Proposed Ecological Enhancements

Bird boxes

2.1.22 Bird boxes are proposed as part of the LHEMP, with indicative locations illustrated on Ecus Ltd drawings L9014/02- L9014/05. The box locations have been suggested by an ecologist; however they are indicative only and can be micro-sited to avoid windows and door openings etc, if required. True south aspects should be strictly avoided to prevent overheating of boxes. An ecologist should be contacted with any detailed queries.

2.1.23 Bird boxes will be installed on both new buildings and will include two sparrow terrace boxes, such as the Schwegler 1SP sparrow terrace, and a triple cavity swift box, such as the Schwegler No. 17A swift box.

Bat box

2.1.24 Bat provision will be incorporated as part of the proposed development. The suggested location is illustrated on Ecus Ltd drawing L9014/02- L9014/05. As the surrounding habitat provides only suboptimal foraging habitat, a single bat box is considered to be appropriate. Due to the construction type of the new buildings, an integral model will not be suitable. An external model such as the Schwegler 1FF with built-in wooden rear panel should be attached to the building on a south facing aspect.

Drainage pond

2.1.25 A pond will be created in the north-western corner of the site. Its primary function will be to hold excess surface runoff, however it will also act as a wildlife feature, providing aquatic habitat conditions on site and thereby increasing species diversity.

2.1.26 The pond will have a stone ramp made of rocks placed to the pond edge to enable access and egress for amphibians and hedgehogs and will include Wet Meadow Mixture grass seeding on the slopes. Marginal Aquatic Planting in the form of coir rolls at the base of the slopes will also provide instant established macrophyte assemblages.

2.1.27 It is intended for the feature to be permanently wet. If this is achieved, it will provide potential habitat for common amphibian use during the amphibian breeding season (April – June). It may also be used by mammals such as fox or badger for drinking.

Wildflower grassland

2.1.28 Large areas of the existing grassland are to be retained on site and managed as tussocky grassland. Any areas damaged during construction are to be re-instated using a tussocky grassland seed mix e.g. Emorsgate ESG4 – Tussock Grass Mixture, or similar approved.

2.1.29 Emorsgate EM2 Standard General Purpose Meadow Mixture, or similar, grass seed is also to be sown and established on site to compliment the retained and reinstated semi-improved grassland.

2.1.30 In addition, grass covered mounds situated both sides of the site entrance, are to be created to provide soft screening that fits in with the surrounding landscape. This will increase the surface area of grassland present which will potentially provide a benefit to invertebrates through increased foraging opportunities.

Tree Planting

2.1.31 New tree planting is proposed within a buffer zone situated along the north-western and south-western site boundaries. Native species including small-leaved lime (*Tilia cordata*), pedunculate oak (*Quercus robur*) and beech (*Fagus sylvatica*) are to be favoured to fit in with the surrounding landscape and extra heavy standards are to be used to provide instant impact, habitat structure and reduce establishment time.

Planting Proposals and Specification

2.1.32 Reference should be made to the latest soft landscape proposals drawing (Ecus Ltd. L9014-01 – L9014/07) for full details of the outline planting specification.

Planting and Seeding Proposals

2.1.33 The planting scheme consists of the following:

- Extra heavy standard tree planting in soft landscape;
- Aquatic marginal planting;
- Existing grassland managed as tussocky grassland, with supplementary tussocky grass seeding where necessary;
- Wildflower meadow planting;
- Wet meadow grassland planting; and
- Amenity grassland.

Landscape Specification

2.1.34 Refer to the soft landscape drawing L9014/06 for the outline topsoiling, cultivation and planting specification and drawing L9014/07 for the typical

detail for marginal planting.

2.1.35 Wildflower grassland is proposed on existing areas of semi-improved grassland, therefore it is recommended that topsoil is stripped from these areas to lower fertility. This topsoil can be re-used elsewhere on site for tree planting pits. Wildflower grassland best establishes on low fertility soils.

2.1.36 Refer to drawings L9014/08 for typical rip rap rocks to edge of pond; L9014/09 for the typical dry stone wall detail; and L9014/10 for the stockproof fence.

Planting within Root Protection Areas

2.1.37 Where soft landscaping is proposed within the Root Protection Area (RPA) of retained trees (either those, which lie within, or those which lie outside of the site boundary), excavations should be kept to the minimum required to provide adequate conditions for the establishment of new trees. Excavations should be carried out carefully and by hand, avoiding the severance of any roots larger than 25mm diameter.

General Maintenance Objectives for the Establishment Period (5 Years)

2.1.38 General maintenance objectives for the site are as follows:

- To provide a high quality landscape structure that enhances the appearance and character of the site and its environs;
- To ensure new planting and seeding establishes successfully and continues to thrive. Operations are to include watering, replacement planting of dead or dying plants, adjustment of stakes and ties;
- To maintain attractive and healthy plant mixes by removing dead/ dying plants within the 5 year establishment period, replacing with similar size and stock; and
- To use preventative measures to minimise maintenance input generally across the development i.e. use of bark mulch to control weeds and reduce the need for watering.

General Maintenance Objectives for the Long-Term Period (Year 6-10)

- To ensure the longevity of new areas of landscape planting through regular and effective management and maintenance; To create a well managed appearance for the development, control weeds, prevent planting encroachment onto hardstanding and maintain good visual surveillance across the development;
- To manage wildflower grassland to maintain species diversity to enhance biodiversity;
- To promote a variety of vegetation structure to the pond edge to benefit biodiversity; and
- To ensure that central areas of the pond are kept clear and any excessive encroachment of vegetation is managed in the long term.

Long-term Maintenance Objectives

2.1.39 Detailed maintenance objectives are listed below. These objectives will continue in the long-term as the objectives remain consistent. In general the

objectives relating to the soft landscape is to allow for potential removal of dead plants and undertake further replacement planting where necessary.

2.1.40 Trees should continue to be monitored on an annual basis and following any storm events or strong winds. Any health and safety works should be prioritised within public open space or adjacent paths.

3. Management Responsibilities

3.1.1 The various areas of management responsibilities are indicated below.

- All soft planting to be managed and maintained by David J Howe Landscaping & Groundcare. 8 Greggs Avenue Chapel-En-Le-Frith, High Peak SK23 9TU; and
- All hard surfacing and boundary features to be managed by Mark Dickinson, Director, Pennine Aggregates Ltd.

Restrictions and Limitations for Maintenance Operations

3.1.2 Should any trees or vegetation require thinning or removal in the future, works should be undertaken outside the nesting bird season which falls between March to August inclusive, unless approved by a suitably experienced ecologist upon completion of a nesting bird check.

3.1.3 Root Protection Areas should be adhered to during all works on site.

Plant Replacements

3.1.4 Any plants that fail to establish within a period of five years are to be replaced in the next planting season with others of similar size and species unless written consent is provided by the Local Planning Authority to vary the approved details.

3.1.5 After five years it is recommended that yearly site inspections occur to record site conditions and to determine whether replacement planting or over-seeding is required to maintain a high quality landscape scheme that is consistent with the original objectives. Work only to be undertaken following client approval.

4. Maintenance Schedule and Specification

4.1.1 The following schedule outlines the key management objectives for each landscape type within the site.

4.1.2 The schedule outlines recommended maintenance operations, the appropriate times of year they should be undertaken and the recommended frequency each year in order to achieve these objectives. The schedule details operations that are recommended for the establishment phase up to five years following implementation and also those operations required in the mid to long-term.

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
1. General maintenance requirements to all planted areas, unless otherwise stated in the detailed schedule below.	To maintain high standard planting scheme across site and ensure healthy establishment of plants.	A	Inspection	March-September	Annually.	x	x
		B	Inspect tree stakes, ties and shelters and replace where necessary. Remove in Year 5.	February and after strong winds	Annually. In Year 5-Remove.	x	-
		C	Watering - during establishment and to ensure continued thriving	As necessary during dry spells, or indicated in the detailed schedule below.	As required-daily in dry spells mainly April-September.	x	-
		D	Refirm new tree / shrub planting	February and after strong winds	Annually and as required following inspection.	x	-
		E	Removal of debris and litter	Throughout	Each maintenance visit.	x	x
		F	Plant replacements and reinstatement to Year 5 when instructed	November to March	Annually next following planting season.	x	-
		G	Fertiliser	March	Annually.	x	x
		H	Top up mulch to 60mm or 75mm depth (bark or gravel - refer to specification)	November	Annually.	x	x
2. New tree planting (incl. extra heavy standard	To ensure that trees establish and remain in a healthy condition.	A	Establishment maintenance (weed control, fertiliser, tree guy wires, refirming, formative pruning)	As necessary following inspection	As required.	x	-

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
trees, standard trees, multi-stemmed specimens and feathered trees)		B	Maintain 1m diameter weed free area, adjust soil and maintain depth of mulch	As necessary following inspection	As required.	x	-
3. Amenity Grassland	Good sward of even colour and smooth gradients. Height maximum 50mm	A	Reinstatement of eroded / damaged areas:	May-September	As required	x	x
		B	Cutting, remove arisings, trim edges and collect trimmings- remove	April-October Note: allow six weeks between end of flowering to cutting bulbs areas. Note: Ox-Eye Daisy drifts from end of May do not cut until end of August.	15 visits. Maintain 50-70mm height. Approx. every 2 weeks in growing season	x	x
		C	Reforming edges to paths	Autumn	Annually	x	x
		D	Fertiliser- Spring	April	Annually	x	x
		E	Fertiliser- Autumn	October	Annually	x	x
		F	Light scarification / raking	March	Annually (if required)	x	x
		G	Weed control	March - October	As required	x	x
4. Tussock Grass Mix e.g. Emorsgate ESG4 – Tussock Grass Mixture, or similar	Maintain to achieve the greatest species diversity. Prevent future encroachment by scrub/ saplings. Establish grassland that, once established, require	A	Year 1: Cut the grass several times during the first summer to control annual weeds and to help grasses establish.	June, July and September	3	x (Y1)	x
		B	Year 2 onwards: Once established tussocky grassland requires minimal maintenance.	As necessary following inspection	Annually if required	x	x

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
approved (To include existing retained grass to NW and SW Boundary - Yr 2 onwards for maintenance)	little or no maintenance. Encourage good habitat for insects, small mammals, birds, amphibians and reptiles.		Unwanted perennial weeds (docks, thistles) to control by spot treatment with a herbicide. Cut sections only as needed to control invasive perennial weeds (docks, thistles) or contain scrub and bramble invasion.				
		C	Year 2 onwards: Only cut after 1 August to protect any nesting invertebrates and beneficial insects Cut once every 2-3 years, on a rotational basis so that no more than half the area is cut in any one year leaving part as an undisturbed refuge.	Once September/October.	1 (2-3 yr rotation)	x	x
5. Wildflower Meadow Mix e.g. Emorsgate EM2 – Standard General Purpose Meadow Mixture, or similar approved	Maintain to achieve the greatest species diversity. Prevent future encroachment by scrub/ saplings. Establish grassland that, once established, require little or no maintenance. Encourage good habitat for insects, small mammals, birds, amphibians	A	Year 1: Most of the sown species are perennial and will be slow to germinate and grow and will not usually flower in the first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing. Avoid cutting in the spring and early summer if the mixture is autumn sown. These sown annuals should	July, August, September, October	4	x (Y1)	A

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
	and reptiles. Establish an attractive naturalistic meadow		be allowed to flower, then in mid-summer cut and remove the vegetation. It is important to cut back the annuals before they die back, set seed and collapse: this cut will reveal the developing meadow mixture and give it the space it needs to develop.				
		B	Weed Control (after establishment): Once established meadow grassland requires minimal maintenance. Unwanted perennial weeds (docks, thistles) to control by spot treatment with a herbicide.	As necessary following inspection	Annually if required	x (Y2-Y5+)	B
		C	Cutting (after establishment): After flowering in July/August take a 'hay cut'. Cut to 50mm after flowering. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Do not cut or graze from spring through to late July/August to give the sown species an opportunity to flow. Mow the re-growth through to late autumn/winter to c 50mm and again in	September, November, May	2 or 3	x (Y2-Y5+)	C

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
			spring if needed.				
6. Aquatic planting e.g. Salix Coir Plant Palettes, or similar	Develop a variety of vegetation structure, from dense tussock stands, to bare and recently colonised muddy areas. To ensure that central areas of the pond are kept clear and any excessive encroachment of vegetation is managed in the long term.	A	Clear vegetation where sight lines from adjacent properties are obstructed.	As necessary following inspection.		x	x
		B	Periodic clearance in winter by mowing / cutting to ensure a minimum 1/3 water is clear of vegetation.	December	Annually	x	x
		C	Cutting one third of area on a three year rotation.	December	Every 3 years	x	x
		A	Clear vegetation where sight lines from adjacent properties are obstructed.	As necessary following inspection.		x	x
7 Wet Meadow Mixture e.g. Emorsgate EG8 – MEADOW GRASS MIXTURE FOR WETLANDS, or similar approved	To develop a variety of vegetation structure, which can withstand flooding for short periods, but are usually well drained in summer	A	Year 1 - Most of the sown meadow species are perennial and will be slow to germinate and grow and will not usually flower in the first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing.	March, May and September (weed growth control)	3	x (Y1)	-
		B	Year 1 Establishment cut - AUTUMN SOWN Avoid cutting in the spring and early summer if the	August (cut and remove vegetation)	1	x (Y1)	-

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5	Year 6-10
			mixture is autumn sown. These sown annuals should be allowed to flower, then in mid-summer cut and remove the vegetation.				
		C	Cutting to 50mm (after establishment). After flowering in July or August take a 'hay cut' : cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed. Do not cut or graze from spring through to late July/August to give the sown species an opportunity to flower.	July / August, September / October and February / March	3	x	x

Maintenance of Wildlife Features

4.1.3 Bat and bird boxes do not require any specific maintenance, however it would be beneficial to clean out the bird boxes every winter to remove old nesting material. This could be included within the landscape maintenance works for the site. If the bird boxes do not appear to be used after two years, consideration could be given to re-positioning these on site.

4.1.4 Bird boxes should not be disturbed between March to August inclusive and bat boxes should not be disturbed at all. If any concerns arise regarding the bat and bird boxes, an ecologist should be contacted for advice.

Standards and References

4.1.5 All maintenance operations should be undertaken in accordance with the following best practice guidance:

- BS3998:2010 Tree Works Recommendations; and
- BS7370-4: 1993 Grounds maintenance. Recommendations for maintenance of soft landscape (other than amenity turf).
- BS 5837 (2012): Trees in relation to design, demolition and construction
- The Dry Stone Walling Association (2011): Technical Specification for Dry Stone Walls
- Peak District National Park Authority (2003) Agricultural Developments in the Peak District National Park Supplementary Planning Guidance.