



Walden Castle, Saffron Walden

**OUTLINE MASTERPLAN**

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PURCELL

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# INTRODUCTION



This document has been prepared by Purcell and Greengage on behalf of Uttlesford District Council. It represents the formulation of an outline masterplan for the conservation and representation of Saffron Walden Castle. The study area is outlined on the map above.

This outline masterplan has been developed following the principles set out in the Conservation Management Plan (by Purcell) which established the significance of the site, its vulnerabilities and policies to safeguard its sustainable conservation. The CMP addressed both the study area considered in this document and also the adjacent museum site. This masterplan considers only the castle site, this will however be approached in a sustainable manner which can easily be incorporated into future proposals for the museum.

The study area is currently underused and poorly interpreted. Uttlesford District Council would like to incorporate the site into the wider offer of Saffron Walden. The site is currently dependant on the management of the museum. The proposals outlined below intend to bring about a scheme of public interaction and interpretation which will require minimal day-to-day management whilst enhancing the site with regards to ecological and heritage significance.

This outline masterplan has five key goals:

- To contribute to the viable and sustainable future of the site.
- To enhance the understanding of the castle remains both above and below ground.
- To enhance the ecological offer.
- To bring the castle site into the wider offer in Saffron Walden, including the adjacent common.
- To improve access and facilities at the site.

# 2

## SETTING



View of site from the Common (from southeast)

### 2.1 THE EXISTING SITE

There is an opportunity to enhance the setting of the standing castle remains and surrounding meadow. Particularly with regard to views from the common at the south east which is one of the main viewpoints towards the site. Historically views towards the castle remains would have been largely uninterrupted, as shown on an engraving dated 1787. There is an opportunity to restore this view which is currently intruded by modern trees, signage and a hedge around the base of the standing remains.



View of Castle from southeast, 1787



## 2.2 PROPOSED ENHANCEMENT OF SETTING


Proposals for enhancement of the setting are noted on the plan overleaf and include:

- The removal of trees: This will open the views towards the standing castle remains and aid interpretation. The stumps of the trees may be left as a feature. The timber from the trees can be recycled in the stag beetle logger (Described in Section 7).
- Remove existing sign facing road junction: The existing sign detracts from the view towards the remains. This will be replaced with a sign which is more sympathetic to the view and setting.
- Removal of hedge at base of castle remains: The hedge at the base of the remains significantly detracts from the setting in the immediate and wider locality. This will be removed and replaced with a lightweight fence. An example of fence type is shown below at Bramber Castle in West Sussex which may be appropriate for the site.
- Spotlights: Spotlights will be placed at the bottom of the remains. This will enhance the dusk/night setting of the remains and provide additional security in an area which is currently completely unlit.



View of Bramber Castle ([http://commons.wikimedia.org/wiki/File:Bramber\\_Castle.JPG?uselang=en-gb](http://commons.wikimedia.org/wiki/File:Bramber_Castle.JPG?uselang=en-gb))



-  Remove Hedge
-  Remove Trees
-  Install Spotlights

EXISTING VIEW FROM THE COMMON





PROPOSED VIEW



PROPOSED VIEW (DUSK)







# 3

## SITE ENTRANCE

### 3.1 THE EXISTING SITE

The site is currently accessed from Museum Street via the driveway leading to Saffron Walden Museum. A pedestrian gate access is located at the south of the site on Church Street. This access is currently not well presented or well-used. These proposals intend to upgrade this access as the main entrance to visitors to the castle. The topography within the site will hinder disabled access, or access which is compliant with the Equality Act. This will continue to be provided via the car park at the museum.



External view of gate, existing

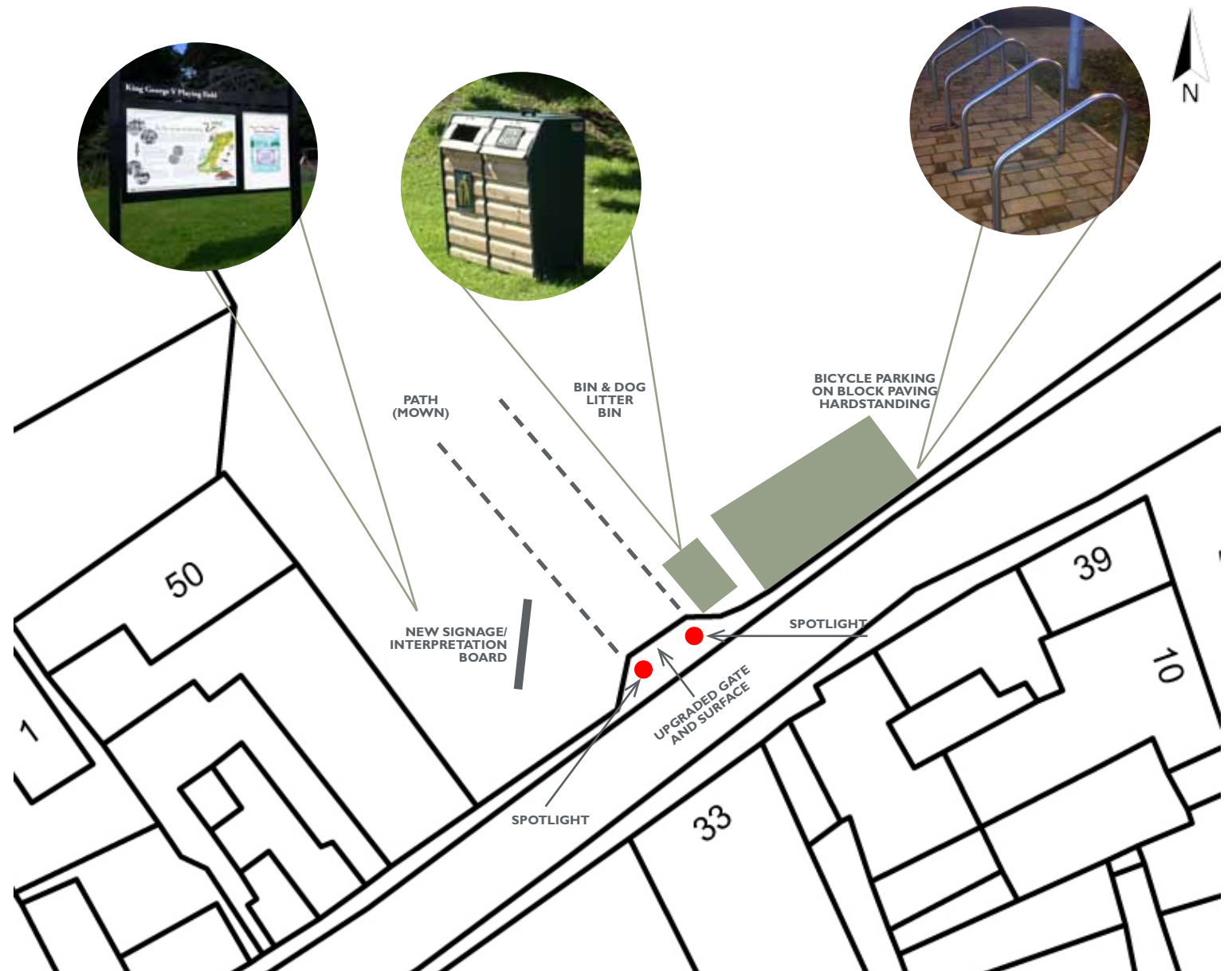


Interior view of gate, existing

### 3.2 PROPOSED UPGRADE OF ENTRANCE

Upgrades to the site entrance will include:

- Conservation of the adjoining wall and gate piers. A condition survey will be required.
- Replacement of existing gate and resurfacing of entrance.
- Replacement of bin and dog litter bin.
- Removal of trees and shrubbery on the east side of the entrance.
- Installation of a welcome board.
- Installation of bicycle park on grasscrete.
- Upgrade of lighting.





PROPOSED UPGRADES TO ENTRANCE



REMOVE BIN

REMOVE SIGNAGE

REMOVE TREES

REPAIR WALL WHERE NECESSARY

REMOVE TIMBER POSTS

INSTALL NEW GATE

UPGRADE ENTRANCE SURFACE

VIEW OF PROPOSED ENTRANCE





VIEW OF PROPOSED ENTRANCE (DUSK)



# 4

## INTERPRETATION



### 4.1 THE EXISTING SITE

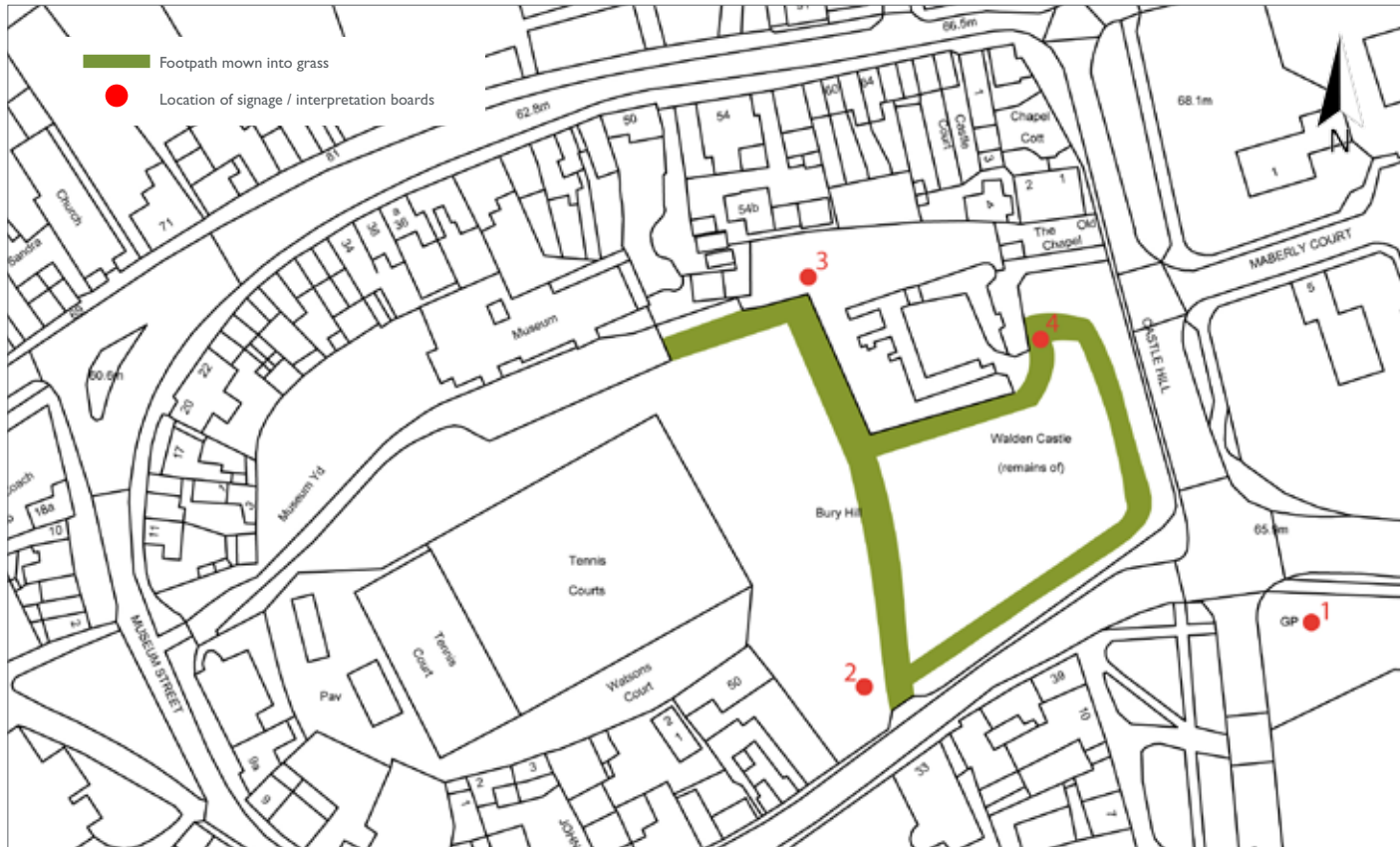
The conservation management plan has highlighted issues with existing scheme of interpretation in the area of the Castle. The proposal overleaf intends to enhance this through the placement of interpretation boards.

### 4.2 THE PROPOSAL

The proposal includes for the installation of new signage and interpretation boards, these will be accessed via a new path which is mown into the grass meadow. The format and content of the boards will be subject to further design work and consideration; these may include features such as brail.

The four locations of the signage/interpretation boards are shown on the plan overleaf which can be cross-referenced to the accompanying text.





Board 1 An interpretation board will be installed at the north west corner of the common. The board may detail the castle and remains of the bailey (which are partially located on the common). This should be considered in conjunction with the upgrade of the significant view towards the castle remains from this location.

Board 2 This welcome sign will be placed at the entrance to the site. The board will provide general information.

Board 3 The board will be placed in the 'ecology area' and provide information pertaining to the understorey planting and stag beetle loggery.

Board 4 The board will be placed adjacent to the castle remains and provide information pertaining to the history of the castle and immediate environs.

The interpretation boards (at locations 1, 3 and 4) are suggested to be zinc etched as shown in the adjacent examples. An example precedent of a welcome sign and what the example at Saffron Walden Castle could look like is shown adjacent.



- 1 Zinc etched interpretation board ([www.differentia.co.uk](http://www.differentia.co.uk))
- 2 Zinc etched interpretation board ([www.differentia.co.uk](http://www.differentia.co.uk))
- 3 Welcome board

In addition to the interpretation boards, way finding markers are also suggested which may form part of a wider heritage trail. This will provide the opportunity to integrate the castle site with other local attractions. These may be provided in the form of pavement markers (such as the example below), supplemented with visitor maps.







Early 20th Century

# 5

## CASTLE INTERIOR

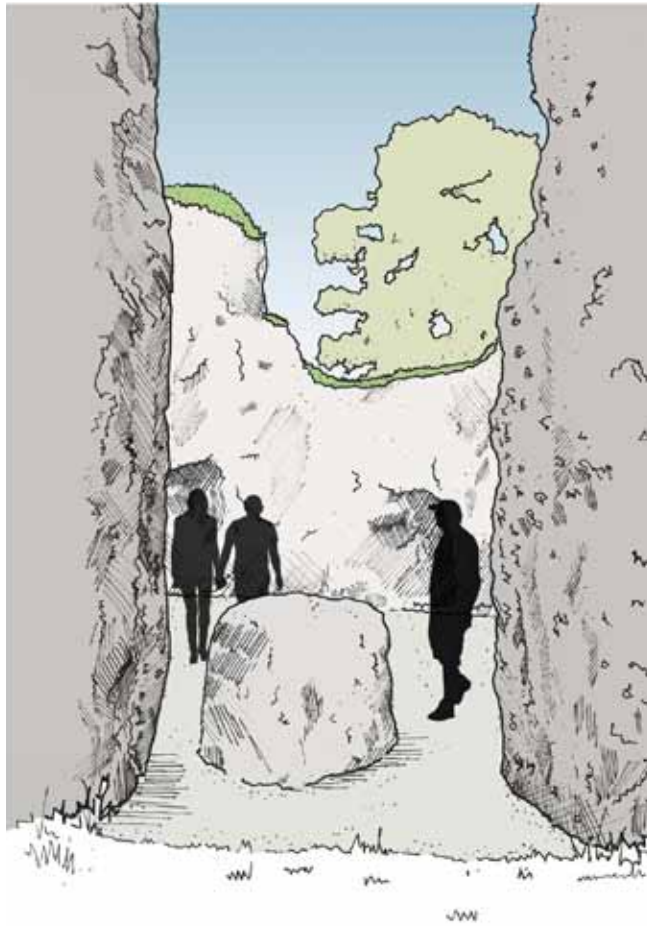
### 5.1 PROPOSALS

The interior of the castle is currently heavily overgrown. The exact manner in which this can be presented is unknown until the overgrowth is removed, revealing any surviving feature or remains. It is proposed to gravel the surface here to facilitate communal interaction with the space as was possible in the early 20th century. Consolidation and repair works to the remains will need to be complete and assessed prior to public access.

The visual (overleaf) shows what this may look like from the castle entrance (at south east corner). The re-presentation of this space could include new interpretation schemes or minor installations to facilitate events or temporary exhibitions.



Existing view of Castle interior



Proposed view of Castle interior

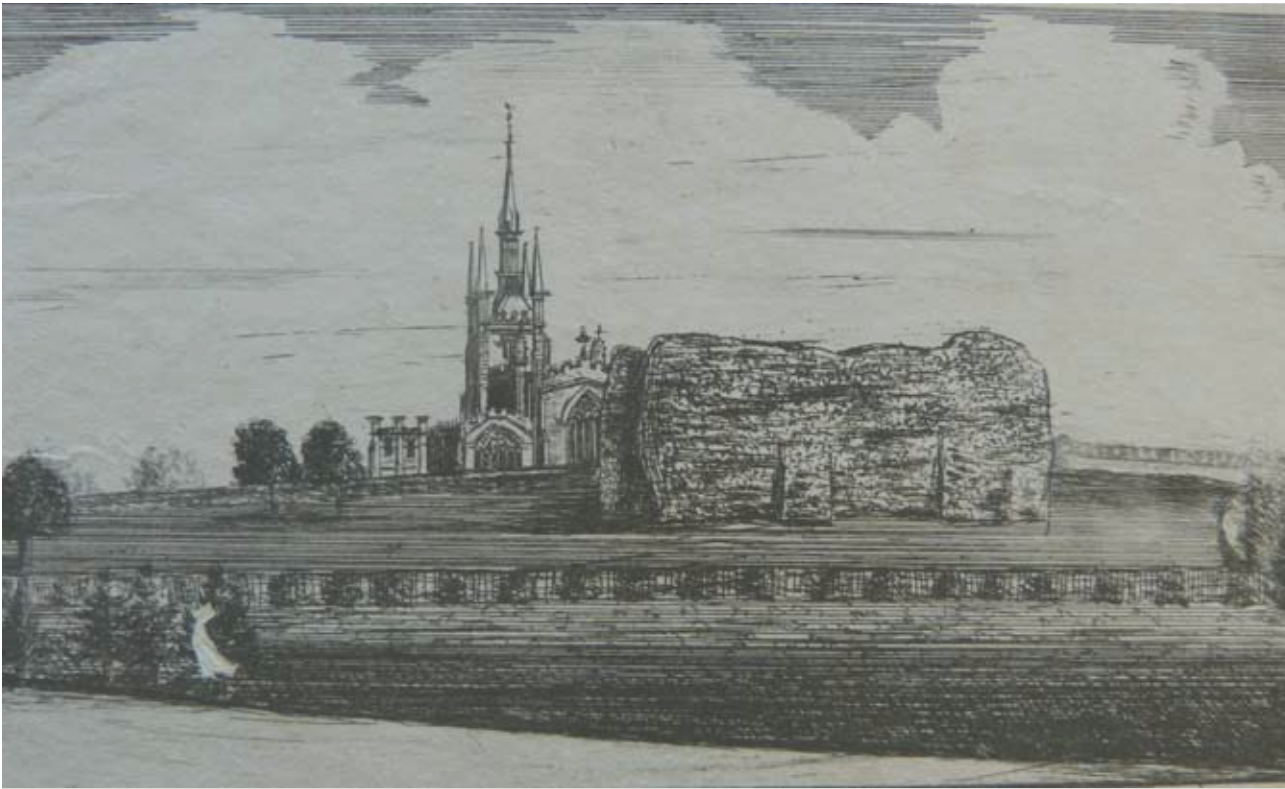


Example of grave; surface at Clarendon Palace, Wiltshire



# 6

## FEATURES



### 6.1 EXISTING SITE

With the exception of the adjacent museum and castle remains (which are currently poorly interpreted) there is little to draw local visitors to the site from the adjacent common and wider area.

Additional features at the site will need to be minor in scale as to not physically detract from the below ground archaeology or the setting of the castle.

### 6.2 THE PROPOSAL

There is potential to put benches around the site which can be used for picnics or in conjunction with an event. The benches should not be fixed. This will provide a flexible use of the meadow space. There is also potential for temporary art installation to be installed to the meadow area. The example overleaf is Anthony Gormley's installation at Winchester Cathedral.



Example bench





# 7

## ECOLOGY

### 7.1 THE EXISTING SITE

The site supports a variety of common habitats, including amenity grassland, scattered trees, tall ruderal vegetation and scrub. There are very few features of note with regard to ecology. There is negligible – low potential for all protected species, other than bats (low for bat roosting and confirmed moderate bat foraging) and breeding birds (low to moderate). Consultations with the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within a 2km radius of the site.

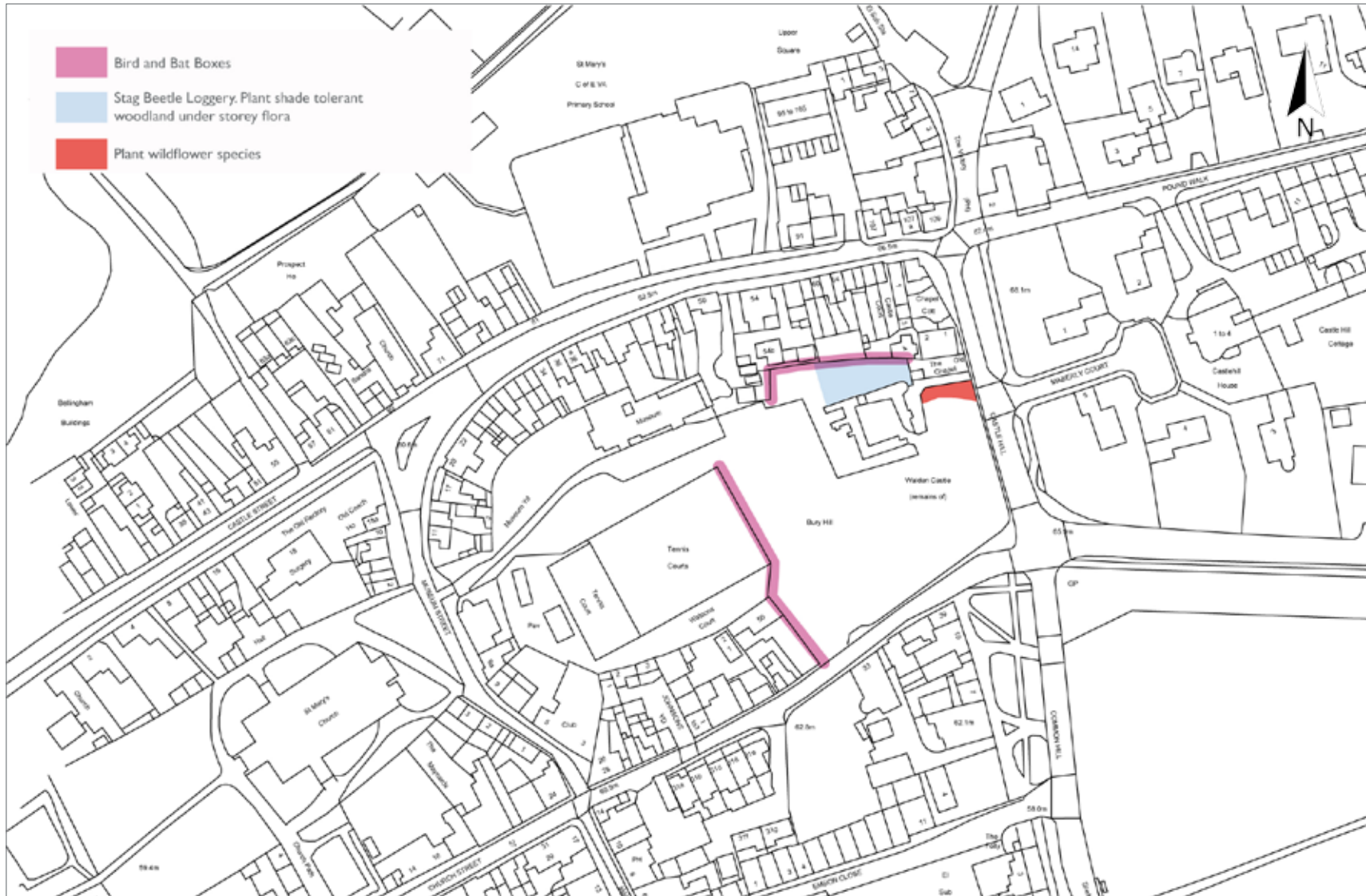
Given the sites existing low ecological value, there are significant opportunities to enhance this. The management of the ivy understory along the northern site boundary,

with the inclusion of shade tolerant woodland understory species will benefit the site from an ecological and aesthetic perspective. The introduction of an area of wildflower planting, and log piles will stand to enhance the site for invertebrates, helping to encourage more bats and birds to the site. This area will act as a replacement bat foraging resource for the ruderal and scrub vegetation to be removed.

The erection of bird and bat boxes in the trees across the site will further stand to benefit bats and birds, providing enhanced opportunities for roosting and breeding. The inclusion of these features will stand to also enhance the site's potential for educational purposes, and add to the value placed on the site by the local community.

Educational opportunities include bat surveying nights, moth catching nights (if the shade tolerant planting includes night scented species) and 'stag beetle hunts', following initiatives by the Peoples Trust for Endangered Species (PTES)<sup>1</sup>. The Ecological Enhancement Opportunities Plan shows the proposed locations of the aforementioned features. Appendix 1.0 includes specific detail on the proposed enhancements, including recommended species for inclusion in the new planting, and an overview of the associated management.

## 7.2 PROPOSED ECOLOGICAL ENHANCEMENTS





### Bird Boxes

There are a number of different types of 'boxes' that can be incorporated into this scheme. The different types are discussed below along with specific instructions on where to best place them.

'Traditional' garden bird boxes should be used and are typical of bird boxes commonly found in gardens across the UK. Position the entrance facing away from the midday sun (south), ideally facing east to take advantage of the early morning sun. All boxes should have a clear flight path to the entrance. It is suggested to place boxes close to any 'greening' of amenity space where opportunities to feed may be present.

Boxes should be clear of inquisitive humans and cats that might be in the area. This type of bird box will be popular with bird species including tree and house sparrows (*Passer domesticus*) (both species being a UK BAP species, with tree sparrows being subject to a specific UK BAP Species Action plan), tits (*Parus* sp.), starlings (*Sturnus vulgaris*), the nuthatch (*Sitta europaea*) and the Pied flycatcher (*Ficedula hypoleuca*). These birds will be attracted to the box all year round and the 32mm hole provided will allow access for all the previously mentioned species. The recommended bird box can be easily fitted to a tree or wall.



Example of the Garden Bird Box<sup>2</sup>

Garden nest boxes generally have removable front panel for cleaning and inspection. After the end of each breeding season (March – October inclusive, although birds can and do nest earlier and later than this) it is advisable that all garden nest boxes should be taken down and the old nesting materials removed (using gloves) and the box should be scalded with boiling water to kill any parasites.

Open fronted nest boxes are best sited on the side of walls with the entrance facing outward. Ideally the opening will be southeast facing and partially obscured by vegetation, for example climbing plants, as open nest boxes require more cover; nearby vegetation also helps young birds taking their first flights as it gives them both physical support and good cover. The open fronted nest boxes on the proposed development should be positioned on the walls of the building and on trees.

This type of bird box importantly accommodates for the spotted flycatcher (*Muscicapa striata*), which is a UK BAP species and will also provide opportunities for other birds such as robins (*Erathacus rubecula*).

Open fronted nest boxes, which are fixed, can be expected to last for many years without maintenance. The majority of nest boxes are made in accordance with the specifications approved by the RSPB and the British Trust for Ornithology and are used by conservation groups throughout the UK. They are simply screwed with attachments to the relevant wall. Each box comes with its own instructions on how to fit.



Example of Open Fronted Nest Box<sup>3</sup>:

### Bat Boxes

Bat boxes will be incorporated in trees across the site. The enhanced wildflower planting will encourage bats to forage at the site and the bat boxes will provide roosting opportunities for these bats. These bat boxes are most likely to attract pipistrelles to roost. Pipistrelles will roost in tight spaces where they can keep warm and gain protection from predators throughout the day, or whilst overwintering. The bat boxes will likely support summer day roosting bats that will forage over the enhanced landscaping at the site overnight. The boxes do not require maintenance.



Example Bat Box<sup>4</sup>

## STAG BEETLE LOGGERY

The stag beetle (*Lucanus cervus*), Britain's largest native, terrestrial beetle, can grow to 7 cm long. They play an important role in nutrient recycling as ground dwelling *saproxyllic* (pertaining to dead and rotting wood) insects, with their larvae taking up to seven years to reach maturity in rotting wood.

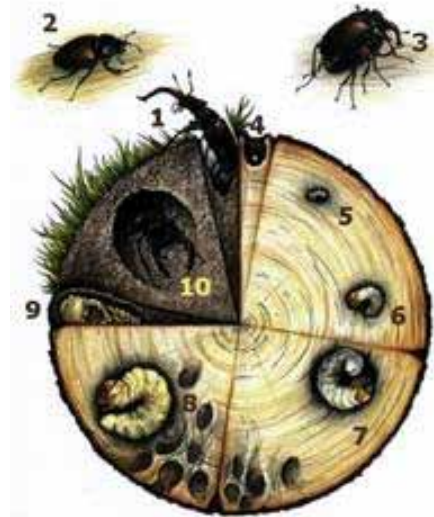
The UK population of stag beetles has rapidly declined over the last 40 years as a function of a decline in suitable habitats. This habitat decline is as a result of the increased removal of dead and rotting woods from gardens and parks for the sake of 'tidiness' and health and safety.

Stag beetles, classified as 'Nationally Scarce Category B', feature as a UK BAP priority species. The stag beetle is a UK protected species, listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Annex II of the EC Habitats Directive<sup>5</sup>.

The life cycle of stag beetles relies totally upon the availability of dead and decaying wood. The majority of its life cycle is spent underground or within wood, and is only commonly observed in flight at dusk in early summer.

The figure opposite shows the life cycle of the stag beetle. The numbers on the diagram refer to the following stages:

- 1-2: Adults (male and female, 1 and 2 respectively) emerge from ground in May-June;
- 3: male and females mate; males swiftly die;
- 4: female stag beetle lays egg in soft soil next to suitable decaying wood; female dies;
- 5: larvae hatch and spend ~2 years feeding on decaying roots and wood underground;
- 6-7: larvae feeds on decaying wood, moults and grows;
- 8: larvae stops eating, buries into the ground and 9 undergoes metamorphoses into an adult beetle; and
- 10: the beetle waits for suitable conditions in early summer to emerge at 1.<sup>6</sup>

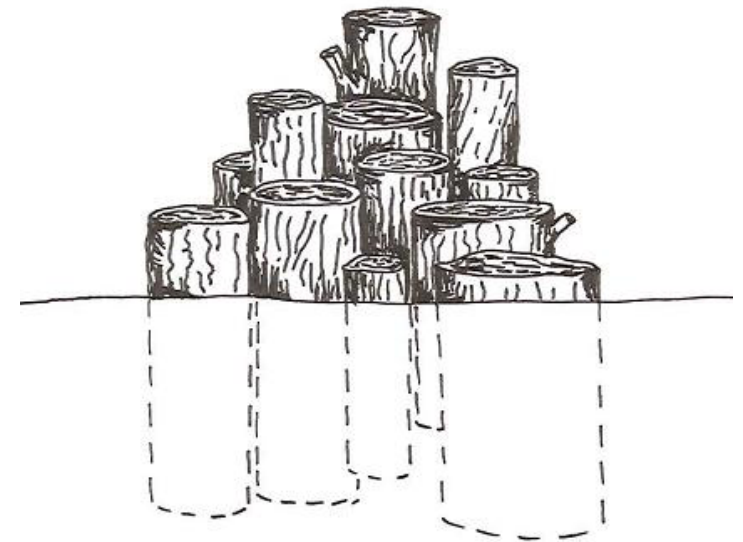


Source: Natural History Museum  
© M Fremin and C Nahaboo

## LOGGERY SPECIFICATIONS

To satisfy the specific life cycle stages of the stag beetle any loggery should therefore provide two key features; dead/decaying wood and surrounding soft soil for the eggs to be laid into. When using the widely accepted 'German' model of loggery design (as shown below) several important requirements must be met:

- The site must be within 1 km of an existing stag beetle area<sup>7</sup>;
- Its location must be at the edge of woodland so that it will get some shade and also to allow for the beetle mating displays on the nearby trees. Whilst the site does not border a woodland, planting can be created as part of the landscaping regime to mirror conditions on the edge of woodland;
- The soil must have good drainage which is important in case of frost during the winter;
- The logs must be hardwood from deciduous native trees; and
- It must contain woodchips (preferably from dead oak trees), to retain the moisture around the logs and to aid fungal decay.



Vertical Log Pile



The loggery itself will consist of large logs (10-50cm diameter) of deciduous native hardwood (e.g. oak, beech, sycamore, ash or fruit trees such as opera or apple; these will support the most diverse insect communities) with bark still attached sunk c60cm into the ground, in partially shaded areas. This follows guidance from London Wildlife Group and is based upon the successful design used at Kew Royal Botanical Gardens (see below).

The inclusion of a stag beetle loggery will complement the People's Trust for Endangered Species' (PTES) Stepping Stones for Stag Beetles project<sup>8</sup>. This project encourages the public to create stag beetle loggeries in their gardens and in available public space to encourage the recovery of stag beetle populations in the UK.



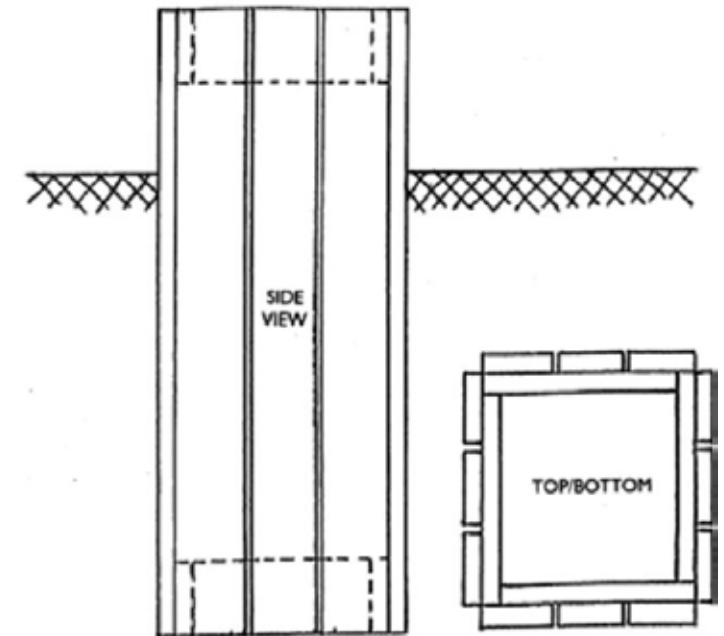
Stag beetle loggery at Kew Gardens, London

An artificial breeding box will be included in addition to the loggery (see below). Made of hardwood timber, 2cm thick, a box 49 X 21.5 X 21.5cm open at each end, covered on the four sides with 61 X 7 X 2cm slats, leaving <1cm gaps between (to allow access to beetles and larvae) to make a total length of 61cm. One end will be covered with fine wire mesh to enable drainage, the other open. It will be filled with damp hardwood sawdust and fine woodchips, sunk 45cm into the ground with open end standing c7cm above soil level.

Along with the Stepping Stones for Stag Beetles scheme, the PTES also run a project called Bury Buckets 4 Beetles BB4B)<sup>9</sup> that encourages the public to add to the monitoring of stag beetles populations in the UK. The BB4B scheme involves the creation of artificial stag beetle laying sites in order to monitor and conserve stag beetle populations. The inclusion of an artificial breeding box will compliment this project.

Stag beetles are crepuscular (active primarily at twilight) and as such strong lighting should be avoided in the direct proximity of the loggery area during May-June, when the adults are active. Loggeries and breeding boxes can be built at any time of year.

It will take some time however for the wood to biodegrade sufficiently to be in the right condition for stag beetle larvae, and many other animals, to feed on. The loggery will benefit from regular mulches of hard wood chips; otherwise active management of the loggery can be kept to a minimum. The immediate area surrounding the loggery will be left untouched throughout May-June, so as not to disturb emerging beetles.



Source: Stag beetle, an advice note for its conservation in London










Stag beetles require shaded conditions. As such, the loggery will be positioned in the shaded area along the northern site boundary; see Ecology Proposal Plan.




Female stag beetles have to dig to bury their eggs, and as such light soils (preferred by female stag beetles) will be used for the landscaping surrounding the stag beetle loggery. The use of pesticides (herbicides, insecticides, fungicides and slug pellets) will be discouraged to prevent changes to the food chain, particularly on stag beetles and other invertebrates, birds and/or mammals. Given the nature of proposed planting surrounding the loggery however, this should be an agreeable condition.

#### Shaded Areas

The species contained within in table adjacent are recommended for inclusion in shaded areas as shown in the Ecology Proposals Plan, in the area of the Stag Beetle Loggery. A brief description of their wildlife benefit is included. These species have been chosen for their specific tolerance to shaded conditions and their value to specific faunal species known to occur in the local area (due to known ubiquitous distributions or specific records held by the National Biodiversity Network (NBN) identifying their local presence).

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Bluebell</b>	<i>Hyacinthoides non-scriptus</i>	Native, ancient woodland indicator species. Large White Butterfly ( <i>Pieris brassicae</i> ) nectar plant. Also valuable for bees.	
<b>Bugle</b>	<i>Ajuga reptans</i>	Native evergreen rhizomatous perennial with blue/purple flowers. Favoured by various bees and bumblebees. Also visited by the Bee Fly ( <i>Bombylius major</i> ).  Lepidoptera including the Large White ( <i>P. brassicae</i> ) and Green-veined White Butterflies ( <i>Pieris napi</i> ) will visit for nectar – a common species in damp grassland, meadows and woodland rides, there are various habitats across the site that will be suitable.  Silver Y Moth ( <i>Autographa gamma</i> ) food plant.	
<b>Primrose</b>	<i>Primula vulgaris</i>	Native wildflower; readily grows at the base of hedgerows. Nectar is attractive to the Brimstone ( <i>Gonepteryx rhamni</i> ), Small Tortoiseshell ( <i>Aglais urticae</i> ) and White Butterflies ( <i>P. brassicae</i> ). The Duke of Burgundy Fritillary Butterfly ( <i>Hamearis lucina</i> ) may also use it as a larval food plant.  Chaffinches ( <i>Fringilla coelebs</i> ) and Tree Sparrows ( <i>Passer montanus</i> – UK BAP priority and SAP species) will use it as a seed plant.	


Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Betony</b>	<i>Stachys officinalis</i>	Valuable for all aforementioned butterfly species in this table as a nectar source. Popular with bees.	
<b>Snowdrop</b>	<i>Galanthus nivalis</i>	Useful source of nectar for early spring butterflies.	
<b>Honeysuckle*</b>	<i>Lonicera periclymenum</i>	Valuable to night foraging moths.	
<b>Dog violet</b>	<i>Viola riviniana</i>	Of value to the bee fly ( <i>B. major</i> ).	

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Red campion</b>	<i>Silene dioica</i>	Attractive to the common blue ( <i>Polyommatus icarus</i> ) and various moths.	
<b>Stitchwort*</b>	<i>Stellaria holostea</i>	Nectar source for the honey bee.	
<b>Yellow archangel</b>	<i>Galeobdolon intereum</i>		

Picture source: RHS

\*These plants are night scented and will provide additional value for moths and foraging bats at night.



Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Wild Marjoram</b>	<i>Origanum vulgare</i>	Late flowering, attracts bees and butterflies including the White-letter Hairstreak ( <i>Satyrrium w-album</i> )	




#### Wildflower Meadow Planting

It is recommended that a wildflower and grass seed mix is sown in the north eastern corner of the site. Plans must take into account the site's usage as a community amenity area, and therefore consider the available areas for wildflower planting. It will be avoided for example across the majority of the open amenity grassland which makes up most of the site.





The Ecology Proposals Plan shows the recommended location for wildflower planting. The table overleaf shows a typical example of a wildflower seed selection.





Wildflower Seed Mix for Grassland Areas





Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Kidney Vetch</b>	<i>Anthyllis vulneraria</i>	Valuable for a variety of butterfly and bee species.	
<b>Germander speedwell</b>	<i>Veronica chameadrys</i>	Valuable nectar source for solitary bees.	

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Lesser knapweed</b>	<i>Centaurea nigra</i>	Attractive to many butterflies, including Gatekeeper ( <i>Pyronia tithonus</i> ), Large Skipper ( <i>Ochlodes sylvanus</i> ), Meadow Brown ( <i>Maniola jurtina</i> ), Painted Lady ( <i>Vanessa cardui</i> ), Peacock ( <i>Inachis io</i> ), Red Admiral ( <i>Vanessa atalanta</i> ), Small Copper ( <i>Lycaena phlaeas</i> ) and Small Skipper ( <i>Thymelicus sylvestris</i> ). Seeds eaten by goldfinches ( <i>Carduelis carduelis</i> ).	
<b>Herb Robert</b>	<i>Geranium robertianum</i>	Valuable for Buff-tailed bumble bee ( <i>Bombus terrestris</i> ), Common carder bee ( <i>Bombus pascuorum</i> ), White-tailed bumble bee ( <i>Bombus lucorum</i> )	
<b>Meadow cranesbill</b>	<i>Geranium pratense</i>	Valuable for a variety of bee species.	









Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Red campion</b>	<i>Silene dioica</i>	Found naturally along woodland pathways. Attractive to the common blue ( <i>Polyommatus icarus</i> ) and various moths.	
<b>White campion</b>	<i>Silene alba</i>	Food plant for Ladybirds, Moths and the Wool-carder bee.	
<b>Yellow rattle</b>	<i>Rhinanthus minor</i>	Native annual attractive to bees. Semi-parasitic on some grasses, reducing the vigour of some courser grasses that may out compete meadow flowers.	
<b>Black medick</b>	<i>Medicago lupulina</i>	Food plant for Common blue butterfly.	




Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Yarrow</b>	<i>Achillea millefolium</i>	Of value for Flies and the Lime-speck pug moth.	
<b>Greater Knapweed</b>	<i>Centaurea nigra</i>	Likely to attract Gatekeeper, Large Skipper, Meadow Brown, Painted Lady, Peacock, Red Admiral, Small Copper and Small Skipper butterflies.	
<b>Wild Basil</b>	<i>Clinopodium vulgare</i>	Pollinated by bees and attractive to butterflies.	
<b>Wild Carrot</b>	<i>Daucus carota</i>	Attractive to butterflies as a nectar source and larval food plant.	

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Hedge Bedstraw</b>	<i>Galium mollugo</i>	Of value to the Elephant hawk-moth ( <i>Deilephila porcellus</i> ), Flame moth ( <i>Axylia putris</i> ), Hummingbird hawk-moth ( <i>Macroglossum stellatarum</i> ).	
<b>Lady's Bedstraw</b>	<i>Galium verum</i>	Of value to moth and butterfly species.	
<b>Rough Hawkbit</b>	<i>Leontodon hispidus</i>	Bees, wasps and beetles.	
<b>Oxeye Daisy</b>	<i>Leucanthemum vulgare</i>	Flowers attract bees and butterflies, hoverflies and some flower beetles.	



Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Birdsfoot Trefoil</b>	<i>Lotus corniculatus</i>	Nectar and pollen for bees.  Will attract Common Blue Butterfly, Dingy Skipper Butterfly and Burnet Moth as a caterpillar food plant. Also used by Common Blue Butterfly adults as a nectar plant.	
<b>Ragged Robin</b>	<i>Lychnis flos-cuculi</i>	Buff-tailed bumble bee, Common carder bumble bee, Green-veined white butterfly, Honey bee, Red-tailed bumble bee, White-tailed bumble bee.	
<b>Musk Mallow</b>	<i>Malva moschata</i>	Nectar source for Painted lady butterfly.	

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
<b>Cowslip</b>	<i>Primula veris</i>	Food plant of the Duke of Burgundy Fritillary butterfly, Plain Clary and Northern Rustic moths.	
<b>Meadow Buttercup</b>	<i>Ranunculus acris</i>	Bees, wasps, flies and moths.	
<b>Common Sorrel</b>	<i>Rumex acetosa</i>	Small copper butterfly larval foodplant.	

Species (Common Name)	Species (Binomial Name)	Description and wildlife benefit	Picture
Salad Burnet	<i>Sanguisorba minor</i> <i>ssp minor</i>	Bees and wasps.	
Field Scabious	<i>Knautia arvensis</i>	Butterfly nectar plant (Gatekeeper, Large Skipper, Small Skipper, Small White, Small Tortoiseshell, Common Blue, Meadow Brown) but will also attract bees, hoverflies and moths.	
Self Heal	<i>Prunella vulgaris</i>	Bees and wasps.	



The table below is a simple mixture of low growing grasses that gives a good open “flower-friendly” sward and should be seeded at the same time as the wildflowers. The seed mix selected should include a selection of the species included in the table.

Species (Common Name)	Species (Binomial Name)
Common Bent	<i>Agrostis capillaris</i>
Crested Dogtail	<i>Cynosurus cristatus</i>
Red Fescue	<i>Festuca rubra ssp commutata</i>
Slender Creeping Red Fescue	<i>Festuca rubra</i>

The vegetation should ‘drop away’ in height from tussocky grass with wildflower mix to more short open turf as you move further from the boundary wall/hedgerow and towards the areas subject to more intensive management regimes across the majority of the site. Wildflower mix can grow to heights of 60-250cm. The difference in height is encouraged to develop habitat potential for invertebrates. The grassland must have a good range of successional stages and vegetation structures to maximise enhancement for the ecology.

To maintain the nature conservation interest of grassland communities, with their component species of flora and fauna, ‘low’ or ‘no mow’ zones should be introduced. These areas will encourage the flowering and seeding of both grass and herb species and therefore it is important to let the plants mature and flower for both a valuable source of nectar for a range of invertebrates, as well being aesthetically pleasing.

In practice, management will vary according to the characteristics of the site and its different ‘zones’ as the habitats develop. Specific management actions will therefore be informed by an iterative process of applying feedback from subsequent site visits. Typically however an annual mow will be required.

To help the flowers establish, the meadow will require cutting during its first summer to ~50mm. The cuttings should be removed along with unwanted weed growth, such as docks.

#### Night Scented Plants

Night scented species are recommended for inclusion in the wildflower meadow area. This will stand to attract feeding moths at night, and in turn foraging bats. Species from the following list are recommended. Most of these plants thrive in sunny, sheltered conditions (although Honeysuckle and Stitchwort will prefer shade so could be included in the shaded planting area along the northern boundary):

- *Caryopteris x clandonensis*;
- *Eryngium giganteum*;
- Evening primrose *Oenothera* sp.;
- Globe Artichoke *Cynara cardunculus*;
- Hebe sp.;
- Jasmine *Jasminum officinale*;
- Tobacco plant *Nicotiana sylvestris*;
- Verbena *bonariensis*;
- Greater stitchwort *Stellaria holostea*;
- Night scented stock *Matthiola longipetala*;
- White campion *Silene latifolia*;
- Honeysuckle *Lonicera periclymenum*; and
- Red Valerian *Centranthus ruber*.

## References

- 1 PTES (2013) Bury Buckets 4 Beetles, <http://www.ptes.org/?page=211>
- 2 Nest Boxes <http://www.jacobijayne.co.uk/popular-nest-boxes/avianex/> (Greengage do not specifically endorse this product).
- 3 RSPB [http://shopping.rspb.org.uk/p/Nestboxes/Slate\\_style\\_apex\\_open\\_nest%20box.htm](http://shopping.rspb.org.uk/p/Nestboxes/Slate_style_apex_open_nest%20box.htm) (Greengage do not specifically endorse this product).
- 4 RSPB <http://shopping.rspb.org.uk/bat-box>. (Greengage do not specifically endorse this product).
- 5 London Wildlife Trust (2000), Stag beetle, an advice note for its conservation in London [http://www.lbp.org.uk/downloads/Publications/Management/stag\\_advice.pdf](http://www.lbp.org.uk/downloads/Publications/Management/stag_advice.pdf)
- 6 Fremlin, M. (2009) Stag beetle (*Lucanus cervus*, (L., 1758), Lucanidae) urban behaviour in Buse, Alexander, Ranius & Assmann (Eds) 2009 Saproxyllic Beetles - their role and diversity in European woodland and tree habitats. *Proceedings of the 5th Symposium and Workshop on the Conservation of Saproxyllic Beetles*, pp. 161-176.
- 7 Sinsch, U. & Rink, M. (2007). Radio-telemetric monitoring of dispersing stag beetles: implications for conservation, *Journal of Zoology* 272, 235–243
- 8 PTES [http://ptes.org/files/1871\\_stepping\\_stones\\_final\\_lowres.pdf](http://ptes.org/files/1871_stepping_stones_final_lowres.pdf)
- 9 PTES <http://ptes.org/index.php?page=211>

# 8

## NEXT STEPS



The information below outlines the next steps which will be required to further this masterplan. These should be undertaken after consultation with relevant stakeholders.

- Commission detailed design and costing.
- Commission condition survey of Grade II listed wall at south and east of study area.
- All work should be undertaken in consultation with Saffron Walden Museum. This will ensure branding and elements such as signage fonts are sustainable.





