

**ecological support, management &
solutions**



Bat Corridor Habitat Creation and Management Plan

Blendworth Crescent

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1.0 INTRODUCTION

1.1 Brief

During ecological survey work at the Blendworth Crescent site Ecosupport Ltd the presence of a nearby significant Serotine (*Eptesicus serotinus*) roost was brought to the attention of the ecologist. In an attempt to mitigate for the impacts of the development a Mitigation Strategy was developed to ensure that the bats within this historic roost were not impacted.

Works on site resulted in the significant disturbance of the area of the site which has been highlighted as being retained and protected. As a result, rather than retaining this extent of the site, this will now be subject to habitat creation and subsequent management to ensure its success.

1.2 Aims of the Mitigation Strategy

This document has been produced to detail the required habitat creation and follow up management. This is in order to ensure that both foraging and commuting bats are not negatively impacted by proposals.

1.3 Legal Protection of Bats

Due to the decline in bat numbers, all species in England and Wales are protected by the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006) and by the Conservation of Habitats and Species Regulations (2010).

This makes it an illegal offence to deliberately capture, injure or kill a bat, intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats, damage or destroy a bat roosting place (even if bats are not occupying the roost at the time), possess or advertise/sell/exchange a bat (dead or alive) and to intentionally or recklessly obstruct access to a bat roost.

1.4 Valuation of the Site

The site is of **county value** for commuting bats and **local value** for foraging bats Wray et al. (2010).

2.0 HABITAT CREATION

2.1 Hedgerow

A native species hedge has been replanted along the western boundary. Species planted include Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Wayfaring Tree *Viburnum lantana*, Dogwood *Cornus alba*, Elder *Sambucus nigra* and Buckthorn *Hippophae rhamnoides*. A mixture of ages were planted:

- Hawthorn was three years old at a height of 1.2/1.5m. This will reach a final maturity of 4-8m height and width.
- The Blackthorn was also three years old and at a height of 1.2/1.5m. At its final maturity the plants will reach 2.5-4m height and width.
- The Wayfaring Trees planted were two years old and were approximately 1m high. At their final maturity they will reach 2.5-4m high/wide.
- The Dogwood was approximately 60/90cm when planted. These plants will reach 1.5-2.5m height and width.
- The Elder whips measured 60cm when planted. These plants will reach 2.5-4m height and width.
- The Buckthorn plants ranged from 60 - 90cm and were two years old. They will grow to 4.8m high/wide.

Despite wood chippings having been spread in an attempt to suppress weed competition in areas dense Fieldweed growth is evident. The species assemblage was greater than that previously in place however the habitat lacks the structure that previously existed. In addition some areas have failed. The Hawthorn, Dogwood and Elder appear to have had the best survival rate and have established well in most places. In fill planting will take place during the site wide landscaping (see below for details).

2.2 Reinforced Hedgerow / Scrub Matrix

Native planting within the Bat Corridor will include:

Guelder Rose *Viburnum opulus*

Dog Rose *Rosa canina*

Holly *Ilex aquifolium*

Privet *Ligustrum vulgare*

Common Dogwood *Cornus sanguinea*

All of which were specified within the original ecology report as they provide resources for nesting birds and mammals as well as encouraging greater diversity in invertebrates.

The following specification has been provided by the landscape team:

All beds are to be prepared to a minimum depth of 450mm, using quality, certified top soil with tree pits being prepared to a minimum of 700mm cubed. Before new topsoil is imported the compacted sub soil should be “ripped” or de-compacted, to ensure long-term drainage.

All compost, bark mulch and soil conditioner to be peat-free. A minimum of 25% of all vegetation to be planted must have been reared in peat free compost, and ideally sourced from local suppliers.

All plants will be spaced equally to create the correct coverage in the desired area. We would recommend that once planting has been completed, that a 75mm layer of bark is used to mulch ALL hedge, shrub and tree beds, increasing water retention and to naturally assist in repressing weed growth.

Planting density is based on an average 4 per square meter.

2.3 Wildflower Areas

In March 2018 the topsoil will be stripped and removed (approximately the upper 20 cm). It will then be cultivated with a rotovator and left for four – six weeks. During this time, the site will be treated with herbicide as weeds establish. Several applications are likely to be required over a period.

The Geocell / Bodpave will then be installed. Once all disturbance associated with this has been completed the mixture (EM2 General Purpose Meadow Mixture) will then be sown during April 2018. This will be sown at the recommended rate and the area will be rolled. It is considered unlikely bird deterrents will be required due to the level of human disturbance from the ongoing development.

2.4 Scattered Trees

At the request of the ecologist a number of trees are being planted within the bat corridor. These trees will all be a minimum height of three meters. Species include English Oak *Quercus robur*, which has very good roost potential once mature, Goat Willow *Salix caprea*, which is very good for supporting foraging bats and two Silver Birch *Betula pendula*, also very good at supporting foraging bats. In addition berry and fruit bearing trees will be planted including two Rowan *Sorbus aucuparia* and a Apple *Malus sylvestris* and Cherry *Prunus avium* tree.

3.0 MANAGEMENT

The long-term aims of the habitat management is to provide a continued diverse habitat in terms of both species and structure. Scrub habitat will be allowed to reestablish and develop, but it will not exceed the area that it previously covered i.e. it will not encroach on the wildflower areas.

3.1 Hedgerow / Scrub

Over-management, or trimming a hedge too severely, can have a detrimental effect on conservation. In general, taller, bushier hedgerows provide more wildlife potential than smaller, thinner hedges. Annual cutting will not always be needed. It is recommended that a hedge is cut every two years. The hedge will not be cut back to the same height repeatedly, varying the cutting height each time will avoid placing the hedge under stress and allow it to regenerate more vigorously. Ground cover at the hedge base should be retained however the recent growth of Bindweed. This will be spot treated with a weed killer based on glyphosate targeting purely the Bindweed to prevent competition with the newly introduced plants and other ground cover.

The trimming of hedge should not take place between March and July (as required by the guidelines) to avoid the nesting season for birds. Therefore the ideal time for hedges to be managed is from September to February ideal as late in the winter as possible so wildlife can take advantage of the nuts and berries produced in the autumn.

3.2 Wildflower Areas

Management is the key factor in the success of a wildflower area. This will differ from the first year. During 2018 the sward will be kept short until the end of June. The sward will be maintained at a height of 100–150 mm. In July and August management will be relaxed to allow any wildflowers to seed.

Where persistent weeds are a problem, spot treatment of a herbicide will be employed. Such species include Common Nettle (*Urtica dioica*), Spear Thistle (*Cirsium vulgare*), Creeping Thistle (*Cirsium arvense*), Broad-leaved Dock (*Rumex obtusifolius*), Curled Dock (*Rumex crispus*) and Common Ragwort (*Senecio jacobaea*). Although in low numbers these species can benefit invertebrates, initially these will be maintained at a low level to allow the mixture to establish.

During the second year the area will be left to flower and cut in mid summer. However grassland which is consistently cut late in the season year on year reduces species diversity therefore, to maintain maximum floral diversity, the area will be managed in sections at different times from late June to the end of August from year three and onwards.

3.3 Scattered Trees

There is no need for direct management of trees. Monitoring for health and safety purposes should take place on a continual basis. An arborist should be consulted if any signs of required action are identified.

4.0 MONITORING

Monitoring of the wildflower areas is important to determine requirements for weed control and management. Regular walkovers will be undertaken by an ecologist of ecosupport Ltd for the first five years to determine the level of vegetation establishment, species abundance, sward height and vegetation cover.

5.0 RESPONSIBILITY

The cost of the associated monitoring and management lies with Portsmouth City Council who have already commissioned ecosupport to undertake the required works for a minimum period of five years.

6.0 SUMMARY

This report will ensure that sufficient good quality habitat remains on site for commuting and foraging bats. In addition it is hoped that these measures will potentially encourage roosting bats on to site.

7.0 REFERENCES

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