PROPOSED NEW ALOTTMENTS, ALRESFORD, HAMPSHIRE

PRELIMINARY ECOLOGICAL ASSESSMENT, REPTILE SURVEY REPORT AND MITIGATION STRATEGY

Updated Final Report
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Contents

Executive Summary

This report has been prepared by CC Ecology Ltd on behalf of the Alresford Town Council in relation to proposed plans to convert an area of land owned by the Avington Park Estate, into community Allotment Gardens. Planning permission is not required for the works to take place.

A Preliminary Ecological Appraisal of the Site was undertaken by Claire Clarke of CC Ecology Ltd and Gareth Knass (on behalf of CC Ecology Ltd) on Wednesday 6th January 2021.

The Site is located almost adjacent to part of the River Itchen Site of Special Scientific Interest (SSSI), notably the water meadows associated with the designation and approximately 260m from the river itself. The Site is therefore located within the Impact Risk Zone for this protected site, and although often this refers to the necessity for Local Planning Authorities to consult with Natural England regarding planning applications, the proposals for the creation of allotment gardens on the Site should be carried out in a way to ensure there are no impacts on the adjacent SSSI. The following report includes a working method statement for undertaking works to the Site.

None of the habitats within the Site boundary are considered to have any real intrinsic nature conservation value although there is potential for protected species to be present in existing vegetation.

The boundary hedgerows and adjacent scrub are considered to have some potential to support dormice given they are known to be present in the wider local area, nesting birds as well as foraging and commuting bats. It is recommended that these habitats are retained, protected and enhanced as part of the proposals.

The habitats on Site were assessed as having potential to support the more common and widespread species of reptile and following recommendations made after the PEA survey a reptile survey of the Site was commissioned and carried out. The survey recorded a good population of Slow Worm *Anguis fragilis* and a small population of grass snake *Natrix helvetica*. The previously described *outline* mitigation strategy has been altered slightly to ensure works on the site are undertaken in a way to mitigate the impact on reptiles and to ensure compliance with the relevant legislation protecting these species.

It is considered unlikely that Dormice are using the sub-optimal more isolated habitats within the centre of the Site however a precautionary working method statement has been included which includes the careful timing of any clearance works and supervision by a suitably qualified ecologist.

Recommendations for enhancing the site for biodiversity as a whole, in line with local biodiversity objective and planning policy have been included within this report.

1. Introduction

Background

1.1 Alresford Town Council propose to convert an area of land owned by the Avington Estate into community Allotment Gardens.

1.2 Planning permission is not required to undertake the works but the Council are keen to understand what the ecological constraints and opportunities are in respect of the proposals and to ensure that any work carried out not only complies with relevant nature conservation legislation but also, as far as is possible, protects and enhances the biodiversity interest of the Site.

1.3 CC Ecology Ltd was commissioned by The Alresford Town Council to undertake a Preliminary Ecological Appraisal of the Site in order to provide advice and recommendations, this was carried out by Claire Clarke and Gareth Knass 6th January 2021.

1.4 Subsequently a reptile survey of the site was commissioned to determine the presence or likely absence of reptiles and tailor the working method appropriately.

1.5 The results of this surveys are included within this report in addition to recommendations for mitigation and enhancements for biodiversity.

Development Proposals

1.6 Current proposals for the area of land (herein referred to as the Site) are to create several allotment gardens roughly 50m^2. The Town Council are flexible as to the number of allotments with final designs to be created following the advice provided within this report.

Site Context

1.7 The land proposed for allotment gardens includes an area of mixed grassland and scrub located to the north of Spring Lane at ordnance survey grid reference SU57703176. The Site is situated on the south western edge of New Alresford to the north of the A31 corridor and east of the River Itchen. The area immediately surrounding the Site comprises a mix of residential housing to the east, pasture farmland to the north, watercress beds and gardens for larger estates to the south and west.

1.8 The Site is located almost adjacent to (at its south western corner) the River Itchen Site of Special Scientific Interest (SSSI). With only the width of Spring Lane and a small section of water meadow separating the Site from the water meadows associated with the SSSI. The River Itchen Itself is located approximately 260m to the west of the Site.

Relevant Legislation and Policy Implications

Relevant Legislation

1.9 The key legislative provisions of relevance to this report with respect to the development proposals and their potential effects on ecological features are listed below, with further detail provided in **Appendix 1**.

- The Habitats and Species Regulations 2019

- The Wildlife and Countryside Act 1981
- The Countryside and Rights of Way (CROW) Act 2000
- The Natural Environment and Rural Communities (NERC) Act 2006

Biodiversity Action Plans

1.10 The UK Biodiversity Action Plan (BAP) was the Government's response to the 1992 Convention on Biodiversity (The Rio Convention), with the aim of halting the loss of biodiversity in the UK. The new UK post-2010 Biodiversity Framework replaces the previous UK Biodiversity Action Plan and is the government's response to the new strategic plan on the United Nations Convention on Biological Diversity (CBD). Although the UK Post-2010 Biodiversity Framework supersedes the UK BAP, the UK BAP lists of priority species and habitats still remain an important reference source for identifying habitats and species of principal importance within England, Wales, Northern Ireland and Scotland. Within England Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 list species and habitats of principal importance for the conservation of biodiversity.

2. Methodology

Introduction

2.1 Methodology for the evaluation of the Site and assessment of the potential impacts has been based on the Guidelines for Ecological Impact Assessment (EcIA) in the UK and Ireland published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018). Protected species and vegetation surveys have all been based upon best practice guidelines published by various organisations in respect of the species group being surveyed.

Defining the Zone of Influence

2.2 In order to define the spatial scope of the Preliminary Ecological Appraisal it is necessary to predict the likely zone of influence of the development proposals for the Site. The zone of influence of a proposed development is defined by CIEEM's EcIA guidelines as *'…the areas/(ecological) resources that may be affected by the biophysical changes caused by a development, both in the construction and operational phases'*.

2.3 The types of activities that might occur as a result of the development of the Site and the likely biophysical changes (in the absence of mitigation) include:

a. Ground and vegetation clearance will be required to facilitate the construction of the allotments; this may have an impact on vegetation with the potential to support protected species;
b. Increase of noise and dust during the construction phases of the development;
c. Potential for run-off from fertilisers and pesticides during the operational phases of the development and impacts on adjacent sensitive habitats.

2.4 The Site falls within the SSSI Impact Risk Zone which is used to identify risks to protected sites such as SSSI's SPA's and SAC's as a result of development. LPA's are asked to consult Natural England on developments that are located within the Impact Risk Zone that fall within certain categories. With reference to Natural England's MAGIC Map 'householder' planning applications are exempt from requiring any further consultation with Natural England and therefore, technically, if the proposals were requiring planning permission an LPA may be minded to consult with Natural England on the proposals to create Allotment gardens here.

Desktop Study

2.5 A desktop study was undertaken to obtain information regarding protected species on the site and within the zone of influence. This involved searching the National Biodiversity Network website, assessing the known distribution of bats in Britain (Richardson, 2001), as well as interrogating Natural England's "Nature on the Map" (MAGIC) to establish protected sites and habitats within the zone of influence of the proposals.

Preliminary Ecological Appraisal Survey

2.6 A Preliminary Ecological Appraisal walkover survey of the Site was undertaken on 6 January 2021 by Claire Clarke of CC Ecology Ltd and Gareth Knass (on behalf of CC Ecology Ltd). The habitats and features within the site boundary were mapped and

classified, in addition any evidence of or potential for protected species to be on the site or within the zone of influence was noted.

Bats

Ground Level Tree Inspection

2.7 A daytime inspection for bats was carried out in combination with the PEA. The trees were examined for evidence that bats may be using, or previously have used, them for roosting. Such evidence may include:

- The presence of bats;
- Bat droppings within the building or on external surfaces on and/or immediately adjacent to the tree; and
- Staining or scratch marks around suitable bat roost locations..

2.8 The inspection of trees noted any roost potential such as woodpecker holes, peeling bark, splits and cracks. Any trees with notable potential roosting opportunities for bats were graded according to the level of potential they have to support bats.

Reptiles

2.9 During the PEA, habitats within the site boundary were assessed for their potential to support reptiles. The habitats considered to be suitable for reptiles were mapped. In addition, the surrounding landscape and adjoining habitats were appraised for their potential to support reptiles in order to ascertain the likelihood of reptiles being present.

2.10 A targeted reptile survey was carried out across the Site which included habitats that were identified as having the potential to support reptiles.

2.11 A survey to ascertain the presence or likely absence of reptiles on the Site was set up on 13 April 2021 using artificial refuges as an established method for collecting data on reptiles (Gent and Gibson 2003). Artificial refugia are materials such as roofing felt or corrugated metal that warm up faster and retain heat for longer than the ground or surrounding vegetation. Reptiles are exothermic (cold blooded) and will use artificial refuges to shelter under in order for their bodies to reach the temperature required for activity. Using artificial refuges therefore enables easier detection of reptiles.

2.12 A total of 30 artificial refugia (roofing felt and corrugated onduline) were distributed in suitable reptile habitat within the Site boundary on 13 April 2021. Survey visits were conducted at suitable weather conditions and at a time appropriate to the season (Gent and Gibson 2003), between 26 April 2021 and 30 June 2021. Suitable weather conditions are generally considered to be between 10ºc and 18ºc with intermittent sunshine and little or no wind or rain. However, it is possible to carry out surveys in warmer conditions dependant on local conditions on the site and the location of individual refugia. During the survey visits, refugia checks were combined with a direct observation survey, which involves visually searching suitable locations for basking reptiles.

2.13 Table 2.2 below provides details of survey conditions and survey personnel.

Table 2.2: Reptile Survey Conditions

Date	Time	Temperature (°c)	Cloud Cover (%)	Wind (Beaufort)	Rain	Comments	Surveyor
26 April 2021	16:30	16	30	1	0	Sunny Spells	Claire Clarke
12 May 2021	16:00	18	80	0	0	Overcast with sunny spells	Claire Clarke
21 May 2021	14:00	18	45	0	0		Matthew Clarke
28 May 2021	15:00	12	50	0	0	Humid Sunny spells	Matthew Clarke
3 June 2021	14:30	19	50	0	0	Sunny spells	Matthew Clarke
7 June 2021	12:20	16	90	0	0	Humid and Hazy	Matthew Clarke
30 June 2021	09:30	15-16	90	0	0	Muggy, overcast with sunny spells	Claire Clarke

Dormice

2.14 Habitats within and adjacent to the Site boundary were considered for their potential to support dormice. The species of boundary and woody habitats were noted and the composition of species, as well as links to other patches of suitable habitat in the surrounding area was considered. Fruiting Hazel *Corylus avellana* were searched for nuts, using the timed methodology set out in the Dormouse Conservation Handbook (Bright et al, 2006), as far as possible. However, this survey method had limitations on amount of mature Hazel on site. During the desktop study, aerial maps were referred to assess how well linked any suitable habitats on the site are to surrounding habitats in the wider landscape.

Amphibians

2.15 During the PEA the site was searched for any ponds. Ordnance survey maps and aerial photos were assessed for the presence of ponds within 500m of the boundary. The terrestrial habitats within and adjacent to the site boundary were assessed for their suitability for amphibian species and habitats were mapped and described during the PEA survey.

Badgers

2.16 The Site and its environs was searched for any evidence of badger activity as well as setts. Any signs were mapped, and any holes were classified according to their use.

Survey Constraints

2.17 Bats will often roost in places that are inaccessible to the surveyor. During the inspection of trees due regard was paid to the noting of features that have the potential to support roosting bats and if any potential roost features were noted the tree was graded as to its potential to support roosting bats, in line with best practice guidelines.

2.18 A PEA is not targeted to any particular species and although it may be possible to determine the presence of protected species within the Site boundary it is no indication of the likely absence of any notable or protected species. In line with best practice guidelines the habitats within and adjacent to the Site boundary were assessed for their potential to support protected species and more targeted protected species surveys recommended if considered necessary. Although January is not the best time to undertake vegetation and habitat assessment, the surveyors experience is used as far as possible to determine the likely value of the Site.

3. Survey results and evaluation

Designated Sites

3.1 The River Itchen SSSI is located in close proximity to the Site with the water meadows associated with the statutory designated wildlife site located almost adjacent to the south west corner of the site on the opposite side of Spring Lane. The location of the Site is relatively close to the source of the River located approximately 4.5km to the south (south of Cheriton). The whole river is designated as a SSSI in addition to some of the adjacent habitats. Parts of the river also designated as a Special Area of Conservation (SAC) under the Habitats and Species Regulations 2019 with the section located close to the Site both SSSI and SAC.

3.2 The Itchen is a classic example of a chalk river and is dominated by aquatic *Ranunculus spp.*. and this is why it is selected as a SAC. Other features include strong populations of Southern Damselfly *Coenagion mercurial* and Bullhead *Cottus gobio*, both Annex II species that are primary reasons for the the selection of the Site as a SAC. Other species present include White-clawed Crawfish *Austropotambius pallipes,* Brook Lamprey *Lampetra planeri,* Atlantic Salmon *Salmo salar* and Otter *Lutra lutra.*It is this assemblage of habitats and species in addition to the presence of other species of flora and fauna that are the reasons for the river and some of the adjacent associated habitats being designated as a SSSI.

Habitats and Features

3.3 Refer to **Map 2** for the habitats and features present within the Site.

3.4 The Site comprises a rough grassland with some limited invading Bramble *Rubus fruticosus agg.* scrub, with a hedge with associated Bramble scrub on the north eastern boundary. The southern and western boundaries are open and comprise grassland banks. The habitats are described below

Grasslands

3.5 The grasslands on site comprise coarse species likely to be dominated by False Oat Grass *Arrhenatherum elatius* and Cocks Foot *Dactylis glomerata*. The western half of the site is more disturbed and includes some mounds of vegetating spoil that are likely to be a storage location for arisings from management of the adjacent water meadows. The ruderal areas includes areas dominated by Cleavers *Galium aparine,* Ground-ivy *Glechoma hederacea* and Nettles *Urtica dioica.* Few other herbaceous species were noted and the grasslands are considered to be species poor. The grassland is starting to be invaded by low growth of Bramble in patches and there are isolated woody shrubs including Elder *Sambucus nigra* and a small amount of Dogwood *Cornus sanguinea.* At the eastern end of the site is an area that is becoming dominated by the non-native Staghorn Sumac *Rhus typhina*, with a fallen Willow *Salix sp.* by the site entrance.

North Eastern Boundary

3.6 The north eastern boundary comprises a currently unmanaged hedge on a bank with a ditch on the site side. It comprises native deciduous woody species, some of which are now outgrown as trees. Species noted included Hawthorn *Crataegus monogyna*, Beech *Fagus sylvatica*, Elder *Sambucus nigra*, Elm *Ulmus sp.* and a couple of mature fruiting Hazel *Corylus avellana*. The hedge also includes some Ivy and extensive stands of Bramble along the site side and extending onto the site for c5m along its length (to the edge of an existing informal trackway through the site. The hedgerow is likely to be an old boundary feature and the boundary is shown on the 1870-1881 1:2,500 Ordnance Survey 1st Edition map. The hedge extends beyond the site to the north and to the east it adjoins an area of secondary woodland, scrub and suburban gardens.

Southern and Western Boundaries

3.7 These boundaries are steep species poor rough grassland banks sloping down to the water meadows with some Bramble scrub.

Evaluation

3.8 The habitats over the majority of the site are generally species poor and nutrient rich, with no notable species recorded. They are mostly semi-natural habitats (apart from the invading Staghorn Sumac), although some are recently disturbed and more ruderal. These habitats are considered to therefore be of value within the zone of influence. The woody north eastern boundary is a well established hedge with some trees and associated Bramble scrub. This habitat is considered to be of local value.

Bats

3.11 A number bat species have been recorded within 2km of the Site boundary. The surrounding habitats are of high quality for bats and it's likely that due to the presence of the river, water meadows and other water bodies distributed in the wider landscape that a diversity of bat species will utlise roost sites both within the residential areas of Alresford and the surrounding countryside. A search on internet resources found records for Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Serotine *Eptisicus serotinus*, Brown Long-eared *Plecotus auritus*, and Noctule *Nyctalus noctula* noted by the application for mitigation licences for impacts on roost sites from Natural England within 2km of the site boundary. In addition NBN gateway records the presence of Nathusius's Pipistrelle *Pipistrellus nathusii* within 2km.

3.12 All of the mature trees within and adjacent to the Site boundary were surveyed from the ground for their potential to support roosting bats and none of the trees within the site boundary were found to have bat roost potential.

3.13 The Site and the hedgerows bounding the Site do have potential to support commuting and foraging bats. Whilst bats may not be using features on the Site for roosting they may use features such as the mature hedgerow along the north eastern boundary to commute between roost sites and foraging areas. Small numbers of bats are likely to use the sheltered areas of the Site and features adjacent to the Site for foraging.

Badgers

3.14 The Site was searched for any evidence of badger activity as well as the presence of badger setts.

3.15 No badger setts were noted and no areas of thick scrub are present that could mask badger setts. It is likely that if Badgers are present within the surrounding area that they would use the horse paddocks for foraging.

Birds

3.16 The hedgerows bordering the site and young scattered trees within the boundary of the site are likely to provide suitable bird nesting opportunities for common and widespread bird species.

3.17 During the site visit a number of species of conservation concern (Eaton et al, 2015) were noted in the wider zone of influence, including Eurasian Woodcock *Scolopax rusticola*, which was flushed from a day roost under a small Elder; Grey Wagtail *Motacilla cinerea*, Eurasian Starling *Sturnus vulgaris* and Dunnock *Prunella modularis*. The Woodcock is considered to be a non-breeding species that is likely to be present along the Itchen Valley during the winter periods, taking advantage of the floodplain grassland habitats for foraging. It does occur as a breeding species along upper reaches of Hampshire's chalk river systems, but will use undisturbed woodland habitats for nesting.

Reptiles

3.18 There are records of Slow Worm *Anguis fragilis,* Common Lizard *Zootoca vivipara*, and Grass Snake *Natrix natrix*, all within 2km of the Site boundary, with records for Slow Worm the most common.

3.19 As the Site was assessed as having potential to support reptiles a targeted reptile survey was carried out during the active season. The Survey Results are present below in Table 3.1.

Table 3.1: Summary of Reptile Survey Results

Date	**Slow Worm**				**Grass Snake**			
	Adult Male	Adult Female	Sub Adult	Juvenile	Adult Male	Adult Female	Sub Adult	Juvenile
26 April 2021	0	2	1	1	0	0	0	0
12 May 2021	4	7	0	5	0	0	0	0
21 May 2021	4	3	3	1	0	0	0	0
28 May 2021	4	2	0	3	0	0	0	1
3 June 2021	6	2	2	0	0	0	0	0
7 June 2021	10	6	4	2	0	0	0	1
30 June 2021	2	3	1	1	0	0	0	0

3.20 Both Slow Worm and Grass Snake have been recorded within the Site boundary. The highest number of adult Slow Worms recorded during any one survey visit was 16 and this suggests a **Good** population of Slow Worm within the Site boundary. The assessment of a

population is based on the number of adults recorded, no adult Grass Snakes were recorded within the Site boundary although a single Juvenile Grass Snake was recorded during two survey visits. Grass Snakes are highly mobile species and less likely confined to the boundaries of a Site, they are usually found in lower densities although the presence of juvenile Grass Snakes suggests that this species is either breeding on Site or close by. The Site is assessed as supporting a **Low** population of Grass Snake.

3.21 The Site includes a patchwork of grassland and scrub habitats suitable for supporting reptiles during both their active season and for hibernation. The grassland banks on the southern and western boundaries with adjacent bramble scrub are more optimal for reptiles, in addition to the southern edge of the north eastern hedgerow and bank of scrub vegetation alongside it. It is likely that if reptiles are present on the Site that they will also use the less optimal central habitats although towards the latter part of the reptile survey there was extensive growth of stinging nettles throughout the centre which reduced the suitability of this area and its likely that reptiles move around the Site throughout the active season seeking out the most optimal areas.

Dormice

3.22 Dormice *Muscardinus avellanarius* and their habitats are protected under the Wildlife & Countryside Act & the Habitat Regulations. They are known to be present in woody habitat along the A31, which is, however, poorly connected to the south of the site. The species has also been recorded to the east of New Alresford along the Watercress Railway line woodland banks. This railway line continues to the west of the town as a disused railway line with woody banks.

3.23 The Site contains woody habitat, particularly along the north eastern boundary. The habitat along this boundary is of a suitable structure and diversity to provide habitat for Dormice, although the amount of habitat on site is not on its own able to support a population. The hedgerow is however connected to offsite habitat. To the north this habitat eventually connects to the former railway line to the west of New Alresford. There is therefore potential that Dormice could use the site on occasion, if they are also present to the west of town in the woodland and hedgerow network. The developing Bramble scrub, Staghorn Sumac and occasional isolated shrub throughout the main grassland area is of lower value to Dormice on account of its more recent establishment, lack of structure and diversity, smaller extent and part isolation in places.

3.24 The mature Hazel on site was searched for nuts opened by Dormice to the standard methodology (Bright et al, 2006; Gov.UK Standing Advice), which involves timed search of the ground for nuts that have been opened by Dormice. The survey was limited to an extent as there is only a small amount of Hazel on site to survey. The extent available was surveyed. No evidence of nuts opened by Dormice was recorded during the search. Nuts opened by *Apodemus sp.* mice and Grey Squirrel *Sciurus carolinensis* were however noted.

Amphibians

3.25 A search of amphibian records using online resources found that all of the U.K common and widespread species of amphibian are recorded within 2km of the Site boundary,

including Common Toad *Bufo bufo*, Common Frog *Rana temporaria,* Palmate Newt *Lissotriton helveticus* and Smooth Newt *Lissotriton vulgaris.* In addition there is one record for Great Crested Newt *Triturus cristatus* , a European Protected Species (EPS) recorded approximately 850m to the north east of the Site on the northern edge of Alresford. The record for Great Crested Newt was found through searching for Natural England granted mitigation licences with one granted in 2014 for the destruction of resting place(s). Another record corresponding in location with the mitigation licence is noted on NBN which recorded 48 individuals in a garden pond in 2012. No other records are noted in the wider landscape surrounding Alresford although a full data search of records located with the Hampshire Biological Records Centre (HBIC) has not been carried out.

3.26 There are no ponds within the Site boundary. Watercress beds are present adjacent to the Site boundary. These are stream fed, and are likely to support small fish, in addition watercress gets harvested and therefore they present an unstable environment for breeding amphibians. Other ponds are located within 500m of the Site and these are associated with the fish farm to the north west of the Site, again, another unstable environment for breeding amphibians. Essentially the ponds located within 500m are associated with the fish farm or watercress beds and are considered less likely to support breeding Great Crested Newts.

3.27 The terrestrial habitats within the Site boundary, mainly hedgerow bases, scrub and rough grassland do provide suitable habitat for terrestrial Great Crested Newts.

3.28 Radio-tracking studies have shown that adult great crested newts typically remain within 100m of their breeding pond (Jehle 2000) with a maximum dispersal of 150m (Jehle & Arntzen 2000). In addition, drift fencing and pitfall trap capture rates decline significantly at distances over 50m from the breeding pond and are rarely effective at distances over 100m from a breeding pond (Cresswell & Whitworth 2004). It is therefore considered unlikely (given the sub-optimal conditions that the adjacent water bodies present for breeding newts), that Great Crested Newts would travel the 850m from the recorded population north of Alresford to the Site, particularly as no suitable breeding ponds are located in closer proximity to the Site.

3.29 The tussock grassland, scrub and hedgerow bases within the Site boundary are likely to support common and widespread species of amphibian, including Common Toad which is a priority species.

Other species

3.30 No other protected or notable species were recorded during the survey.

4. Ecological Constraints and Opportunities for mitigation and enhancement

Introduction

4.1 In order for the proposals to comply fully with applicable legislation, and to meet local biodiversity objectives, a number of recommendations are made to mitigate and compensate for ecological impacts.

Designated Sites

4.2 There are sensitive habitats adjacent to the Site with those associated with the River Itchen SSSI including the adjacent water meadows in addition to the River itself. The stretch closest to the Site is designated as a SSSI but some lower reaches of the River Itchen are of international importance and are designated as a Special Area of Conservation (SAC). Impacts such of run off from construction Sites may have a wider zone of influence due to the nature of a river catchment and therefore not only impact on sensitive habitats immediately adjacent to the Site boundary but those, potentially more sensitive habitats further down the river.

4.3 Due to the nature of the proposals for the Site, the creation of allotments, it is considered that the impacts on adjacent sensitive nature conservation sites are low although measures should be put in place to ensure that works to the site both in the construction and operational phases of the project are managed appropriately.

4.4 A Construction Environment Management Plan (CEMP) is included within Appendix 1.

4.5 Allotment holders required to adhere to the New Alresford Town Council Allotment holder rules NATC encourage all plot holders to utilise organic and environmentally sound methods of pest and disease control, it recognises that it is not always possible to do so. Plot holders must take proper precautions when using sprays/liquids to avoid adverse effects on the environment or on neighbouring plots. Chemicals must only be used, stored and disposed of in accordance with the law and manufacturer's instructions.

Habitats on Site

4.6 No valuable habitats within the site boundary will be affected by the proposed works. A number of species poor but semi-natural habitats (rough grassland, developing scrub) will be impacted and measures are set out below to provide recommendations on how the creation of the allotments can be undertaken in a way to reduce the impact on local biodiversity and provide new habitats in the process.

4.7 The following measures are recommended:

- Retention of existing north eastern hedgerow and low key management to allow existing extent to be retained. The boundary should be protected from any intrusion by allotment activities and storage, and the hedge should be either left in an unmanaged state, or could be brought into some reduced management, whereby gaps are planted with native species and a rotational part management applied to maintain some structure. This should be reduced end of winter

management of only a part of the resource every winter or every other winter, to allow fruiting shrubs to fruit and provide structure and food to wildlife. The Bramble area along the site side of the hedge should be protected in the short term, but can be managed in the longer term, once new woody habitat has developed around the other boundaries (see the third element below). This will allow additional areas along this northern boundary to have some allotment use (eg storage areas). An element of Bramble edge to the hedge should be maintained however, for wildlife benefit;

- Creation of new woody habitat along the southern and western edges of the site on top of the site banks. It may be possible to use grants from the Woodland Trust or similar to resource the woody species. A suitable species mix would include at least 5-6 species, of local provenance, which can include: Hawthorn, Blackthorn *Prunus spinosa*, Hazel, Dogwood, Guelder-rose *Viburnum opulus*, Wayfaring Tree *Viburnum lantana*, Spindle *Euonymus europaeus*, Wild Privet *Ligustrum vulgare*, and native Roses (locally *Rosa canina, R. corymbifera, R. squarrosa, R. arvensis, R. micrantha*). Where space allows a double planted hedge would be most appropriate. The hedge should be allowed to develop as a continuous feature and given enough space to allow to fruit once established, with management during the late winter to keep it outside of allotment areas, but allow fruiting shrubs to provide benefit for local wildlife;

- Management of retained grasslands on site around bases of hedgerows (existing and proposed). The grassland edges to hedgerows provide valuable habitat for wildlie such as birds, small mammals, reptiles and invertebrates. Retention of a small buffer at the base of woody habitat that is left as tall/rough grassland with management only to prevent excessive woody vegetation invasion (eg complete take over by Bramble) will be of benefit to wildlife. The banks on the outside side of the new hedge can be managed as part tall uncut grassland and part annually hay cut grassland to provide a mosaic of habitats.

Fauna

Birds

4.7 All species of bird are protected at the nest. Any works that could affect nesting birds should take place outside of the nesting bird season, usually considered March-August (though this is dictated by regional variations in weather and temperature conditions). Works that need to be undertaken within the nesting bird season should be undertaken immediately following an early morning bird survey to assess whether the works area is being used by nesting birds at the time of the works.

4.8 The new habitats around the edges of the site and retained north eastern hedgerow will provide continued resources for birds in the local area. If further biodiversity gain is sought, then bird boxes could be installed in the retained hedgerow, where there are a number of trees of suitable size. These should be located away from the south facing side. Alternatively, boxes around allotments may allow some common bird species opportunities to nest on site.

Dormice

4.9 The hedgerows around the Site are considered to have some potential to support Dormice as they are connected to suitable habitat in the wider landscape, and Dormice are known from the wider local area. On the basis that there is a limited potential for Dormice to be present a strategy for the ongoing management of habitats on site is recommended, whereby the primary habitat that is suitable for Dormice on site is retained and protected, and the developing Bramble scrub, non-native species and more isolated shrubs are suitably managed to allow provision of the allotments. In addition, new woody habitat along the open site boundaries is recommended to be planted to provide a net benefit to suitable habitat in the longer term.

4.10 The strategy therefore involves the following elements:

- Protection of north eastern boundary hedgerow and associated habitat. This includes all woody habitat to the north east of the informal access track through the site as set out above. Sensitive removal of developing woody habitat along the open part of the site. This should be undertaken during the winter period. Where there are isolated shrubs, these should be taken to stump level, with the ground left intact and not disturbed until the spring (May onwards) on the basis that in the unlikely event a Dormouse has a hibernation nest in this area, it would not be directly impacted. This is consistent with the reptile strategy below. If the habitat is not removed during the winter period, it can be removed at the end of the nesting bird season (Sept-early Nov). In this instance, as it is the active Dormouse season, habitat should be cut back following examination by a suitably qualified/licensed ecologist to check that Dormice nests are not present.

- Creation of new woody habitat (see above for details). In the first available planting window, new habitats can be created along the southern and western boundaries, on top of the existing banks, to create new species rich hedges, linked to the existing site hedge. This will provide new habitat and provide a benefit to wildlife and biodiversity gain.

4.11 Where these recommendations are followed, the Site should still provide suitable structure and function in the local landscape for any Dormice present and will avoid potential for direct impacts on Dormice.

Reptiles

4.12 Habitats within the Site boundary have been found to support a good population of Slow Worm and a low population of Grass Snake. All native species of reptile are protected from harm under the Wildlife and Countryside Act 1981. Works to create the allotments will require the stripping of vegetation from the areas where plots will be constructed and whilst these areas provide less optimal habitats there is the potential for reptiles to be harmed if present at the time.

4.13 As reptiles have been found in good densities it will be necessary to carry out a relocation programme to move reptiles out of harms way before works take place.

4.14 A recommended outline for the mitigation strategy is as follows:

Step 1: Identification of suitable release area.

Step 2: Habitat creation/enhancement and/or management of receptor area.

Step 3: Set up site with appropriate numbers of artificial refugia

Step 4: Capture and relocation of reptiles on site. This stage must take place between March and September/October, in order to take in the optimal period for reptile capture. This should be undertaken by a suitably qualified ecologist.

Step 5: Destructive search of suitable natural reptile habitat and refuges with the ecologist present.

Mitigation Strategy Overview

4.15 The central areas of the Site to the south of the existing track will be converted to allotment gardens with the scrub and hedgerow habitats to the north of the track retained and boundary grassland habitats on the steep southern and western slopes retained. These retained areas will be the location for moving reptiles to.

4.16 The habitats within the receptor areas will be further enhanced to increase their carrying capacity for reptiles and to enhance its general suitability for reptiles. Habitat enhancements will take the form of the seeding of wildflower see mix and encouragement of low scrub. Log and brash piles will also be installed.

4.17 Captured reptiles will be moved to the receptor site following established best practice procedures. Due to the good numbers of reptiles within the Site boundary it is recommended that a relocation programme be carried out following the installation of reptile fencing between the receptor site and the donor site (works area) to ensure that any animals moved don't migrate back into the construction zone.

4.18 The length of time a relocation programme takes is usually estimated using a population assessment with a good population of Slow Worms taking 60-90 days. This however can usually be reduced on small Sites and using suitable habitat manipulation techniques (strategic strimming and reduction of suitable habitats to increase reptile densities under refugia and increase the capture rate), increased refugia density and reptile fencing to avoid animals encroaching back into the works area. It is recommended that a relocation programme be carried out during either the Autumn or Spring with daily visits in good weather conditions to move reptiles out of the works area. Its likely that for the proposed allotment site that reptiles could be relocated within 30 days although this would need to be constantly reviewed during the course of the relocation programme. In the event that no reptiles are seen or caught for five consecutive days in good weather conditions it can be considered that the majority of animals have been safely relocated from the works area and a supervised destructive search can take place.

4.19 Once it is considered that the majority of reptiles have been relocated safely to the receptor Site a destructive search of remaining natural refugia should take place using a small 360◦ digger with a toothed bucket. The destructive search should be supervised by a suitably qualified ecologist catching any remaining animals and relocating safely to the retained areas of suitable habitat.

4.20 Once the works have been completed to create the new allotments the reptile fence can be removed and reptiles will likely encroach back onto the site in suitable areas.

4.21 **Map 2** provides a biodiversity mitigation and enhancements strategy for the site.

Amphibians

4.22 Whilst is considered highly unlikely that Great Crested Newts are located within the Site boundary, it is recommended that works are carried out under a precautionary working method statement as described above with regard to reptiles. This methodology will enable a careful search all natural and artificial refugia during the ground clearance works. Any vegetation and ground clearance should be carried out under the supervision of a suitably qualified ecologist. In the unlikely event that Great Crested Newts are found work should stop immediately and the advising ecologist will contact Natural England.

Residual Impacts

4.23 Provided the mitigation recommended above is implemented in full, there should be no residual impacts to protected species and habitats as a result of the proposed works at the new Allotment Site. By providing additional habitats as well as retaining and managing the more valuable habitats within the site boundary the favourable nature conservation status of protected and priority species will be retained, in addition to enhancing the site for biodiversity as a whole.

5. Conclusions and recommendations

Conclusions

5.1 Within the site boundary no habitats to be impacted upon were considered to have any real intrinsic nature conservation value.

5.2 Sensitive habitats associated with the River Itchen SSSI are located within close proximity to the site and measures should be employed to ensure that there are no impacts on these sensitive habitats as a result of the proposals in both the construction and operational phases. A CEMP has been provided within **Appendix 2**.

5.3 The woody boundary hedgerow habitats have the potential to support Dormice, nesting birds as well as foraging and commuting bats. It is recommended that these features are retained, protected and enhanced as part of the proposals.

5.4 The Site supports a good population of slow worms and a low population of grass snake. This A reptile mitigation strategy is included within the previous section which includes a relocation programme to move reptiles from the works area to retained habitats, proposed mitigation and enhancements are included within **Map 2**.

5.5 Recommendations for mitigation and enhancement have been made and are listed below.

Recommendations

- Retention, protection and enhancement of boundary vegetation;
- Installation of bat and bird boxes on mature trees;
- Creation of log piles as invertebrate and reptile habitat;
- The seeding of wildflower seed mix; and
- The installation of additional native species rich hedgerows.
- Low intensity management of retained semi-natural boundary features.

5.6 Provided the mitigation recommended above is implemented in full, there should be no residual impacts to ecological features as a result of this development.

6. References

Bright, P., Morris, P. & Mitchell-Jones, T. (2006) Dormouse Conservation Handbook. English Nature Species Recovery Programme. English Nature, Peterborough.

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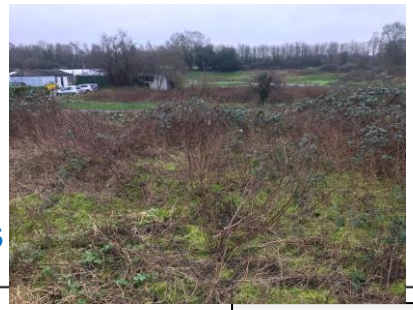
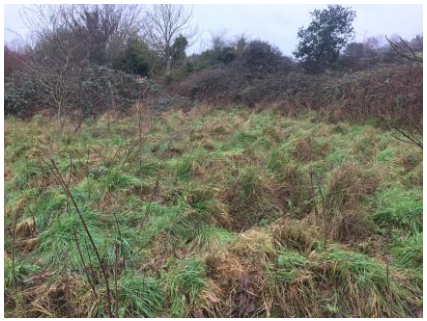
Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746

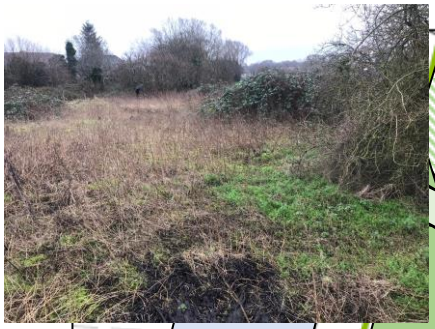
English Nature (2004). *Reptile Guidelines for Developers*, Peterborough.

Defra (2018). *MAGIC Map Application*, Ordnance Survey, Available at: http://magic.defra.gov.uk/MagicMap.aspx. Accessed on 10 January 2021.

Map 1: Habitats and Features





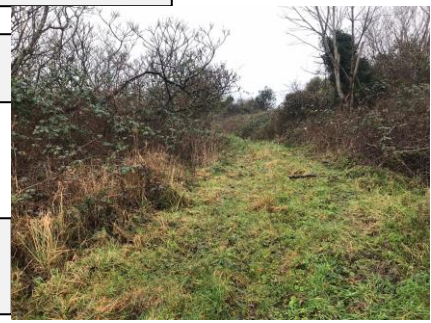


North-eastern boundary includes an unmanaged native species hedgerow with trees on a bank besides a dry ditch, banked on its southern side by bramble scrub and rank tussock grassland.

Native trees and shrubs dotted along north eastern boundary and isolated patches in the Site include species such as Hawthorn, Beech, Elm, Elder, Dogwood. Species south of the track mostly Dogwood and Elder. Two fruiting hazels located along the north eastern boundary.

Watercress bed

Informal track through the Site



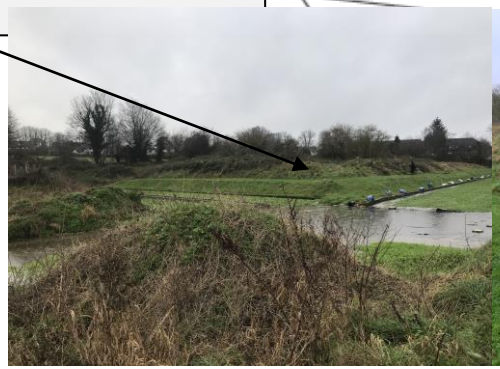
Compost piles include arisings from adjacent watercress beds

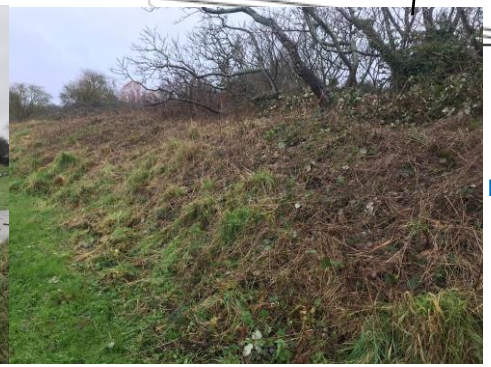
Non-native Staghorn shrubs/small trees

Fallen Willow.

Steep banks located on the edges of the Site sloping down to watercress beds below comprised of rough grassland

Small isolated patches of bramble scrub





Map 2: Mitigation Strategy

Retained habitat along north-eastern boundary.

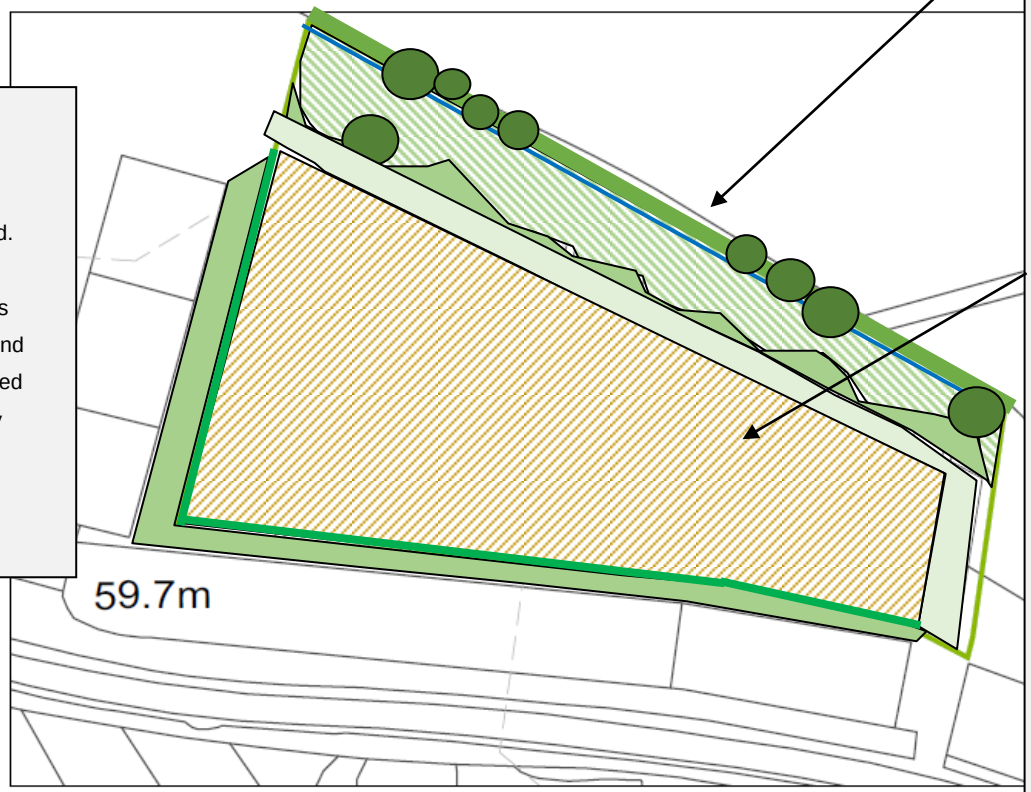
It is recommended that habitats along the north eastern boundary of the Site that are more optimal for protected species such as Dormice, reptiles and nesting birds are retained and managed for biodiversity.

- The hedgerow could be left unmanaged or be brought into some form of reduced management to include the infill planting of hedgerow gaps with native hedgerow species of local provenance and rotational cutting (end of winter management of part of the hedge each winter or every other winter to retain food source for wildlife).
- Over time, as other recommended boundary hedgerow habitats mature the scrub can be reduced alongside the hedgerow to provide some use for allotment users although a bramble edge to buffer the hedgerow and maintain its integrity should remain.

Retained and enhanced tussock grassland slopes.

The grassland slopes along the western and southern boundaries of the Site will be retained. Recommendations for these areas include:

- The planting of a new mixed native species hedgerow along the top of the bank to bound the allotment area. This will create increased habitats for species that are utlising woody habitats within the existing Site.
- The creation of log piles/brash piles.
- The seeding of wildflower seed mix.



Proposed allotment site Spring lane

New Allotment area.

Clearance of area to be converted to allotments should be carried out using a staged approach.

1. Cutting down to ground level woody shrubs and scrub during the winter and prior to the bird nesting season (ground level vegetation should be left undisturbed and intact until the spring).
2. Reptile survey to be carried out in the spring to ascertain the presence or likely absence of reptiles.
3. In the event that reptiles are found to be present within the construction zone it will be necessary to undertake some kind of capture programme to move animals to parts of the Site where habitats are being retained and enhanced. Depending on the population of reptiles found it may be necessary to install reptile fence between the retained areas and the construction zone to ensure no animals that are being relocated disperse back into the development areas, or it may be possible to undertake some form of habitat manipulation to create less suitable strips that are unfavourable for reptiles to cross.
4. Following the removal of animals from the construction zone it will be necessary to undertake an ecologist supervised destructive search of the area using a small 360˚ digger with a toothed bucket. During the destructive search all vegetation and remaining stumps will be removed under supervision of a suitably qualified ecologist.

Appendix 1

Relevant Legislation

CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017

The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) transpose Habitats Directive into UK legislation. The Habitats Regulations provide for the designation and protection of European Sites and European Protected Species. European Sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which form part of the Natura 2000 network of protected areas across Europe.

European Protected Species (EPS) are those listed under Schedule 2 of the Habitats Regulations and include dormouse, great crested newt, otter and all species of bat. The regulations prohibit the deliberate capture, killing or disturbance of any EPS; it is also an offence to damage or destroy a breeding site or resting place of any of these species. In order t0o carry out a lawful operation (e.g. development work which has full planning permission) that may result in an offence under the Habitats Regulations, it is necessary to obtain a licence from Natural England. EPS Licences will only be granted after Natural England has been satisfied that there are no satisfactory alternative and that there will not be any adverse impacts on the favourable conservation status of the species.

WILDLIFE AND COUNTRYSIDE ACT 1981

The Wildlife and Countryside Act 1981 is the principle piece of legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. The Wildlife and Countryside Act contains both habitat and species protection. Certain bird, animal and plant species are afforded protection under Schedules 1. 5 and 8 of the Act. Measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) are also included within the Act.

COUNTRYSIDE AND RIGHTS OF WAY ACT 2000

The Countryside and Rights of Way (CRoW) Act 2000 adds to the protection afforded in the WCA to SSSI's and other important sites for nature conservation. In addition, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on the conviction of wildlife offences.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006

The Natural Environment and Rural Communities (NERC) Act 2006 improved wildlife protection by amending the WCA. The main function of the NERC Act was to raise the profile of biodiversity amongst public authorities. Section 40 (S40 of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions.

Appendix 2

Construction Environment Management Plan (CEMP)

Introduction

The CEMP prescribes the working methods and practices that should be adhered to by all site personnel at the Allotments on Spring Lane during the construction The Ecological Assessment of the site, established several protected ecological features within the zone of influence of the proposals. Therefore, by following the CEMP as described below, impacts on these ecological features will be avoided, in accordance with the relevant legislation and policy.

Pollution prevention measures

Due to the proximity of the site to the River Itchen, construction works will be carried out in accordance with the current Environment Agency Pollution Prevention Guidelines (PPG).

The following Environment Agency PPG's are of relevance to the work proposed and will be adhered to where applicable:

5.7 PPG1: Understanding your environmental responsibilities
5.8 PPG5: Works in, near or over watercourses: prevent pollution
5.9 PPG6: Construction and demolition sites: prevent pollution
5.10 PPG7: The safe operation of refuelling facilities
5.11 PPG8: The safe storage and disposal of used oils
5.12 PPG13: Vehicle washing and cleaning

Certain specific measures will be put in place to ensure that pollution of the adjacent watercourse is avoided during the construction phase. These include:

- A toolbox talk will be given to all site personnel to make people aware of the location and protection afforded to designated wildlife site located adjacent to and close to the Site. The toolbox talk will also include a description of the protection measures outlined within the CEMP to ensure that works undertaken on the Site are carried out in compliance with the relevant legislation protecting ecological features including both sensitive habitats and protected species.

- All pollutants such as oil and chemicals will be stored off site by the contractor (see below).

- Any spillages will be immediately cleared up and reported to the site manager who has the responsibility to report incidents. In the unlikely event of any spillages directly into the watercourse, the incident will be immediately reported to the Environment Agency on their **Hotline: 0800 80 70 60**.