AEWC Ltd

Animal Ecology & Wildlife Consultants

Ecological Enhancement Plan

Ratts End House

Ecchinswell
Newbury
RG20 4TX

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23-170
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The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the 'Guidelines for Preliminary Ecological Appraisal' and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

1. Introduction

1.1 AEWC Ltd were commissioned by Ann and Bernard Clarke to produce an Ecological Enhancement Plan (EEP) for a site at Ratts End House, Ecchinswell Road, Newbury, RG20 4TX at grid reference SU 50144 60966 to help inform the proposed development of the site.

1.2 A Protected species walkover survey and habitat assessment (PSWA) was conducted on the site in November 2023 by AEWC Ltd to record and map existing habitats in order to inform this enhancement strategy.

Site Location

1.3 The proposed development site is located at Ratts End House, Ecchinswell Road, Newbury, RG20 4TX at central grid reference SU 50144 60966.

1.4 The site is located in the village of Ecchinswell in Hampshire, approximately 7km to the south-east of Newbury. The surrounding landscape comprises a mosaic of agricultural land and woodland blocks with tree and hedge lines providing connectivity throughout the landscape. See Figure 1.

FIGURE 1: SHOWING THE SITE LOCATION

1.5 The proposed development site is approximately 0.2ha and largely comprises an amenity garden, garage and garden outbuildings associated with Ratts End House. See Figure 2 and photos 1 and 2.

FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE SITE BOUNDARY

Photo 1: View of site from east end

Photo 2: View of site from west boundary

Proposed development

1.6 Ratts End House was previously granted planning consent for the demolition and rebuild of a garage (planning reference 20/03111/HSE). The approved landscaping plan for this application included planting of two native species hedgerows across the western and north-eastern boundaries, in addition to seven individual native trees. A large proportion of the two new hedgerows and one of the new trees would fall within the current proposed development boundary, however this planting has not yet been undertaken and therefore was not included within the on-site baseline mapping.

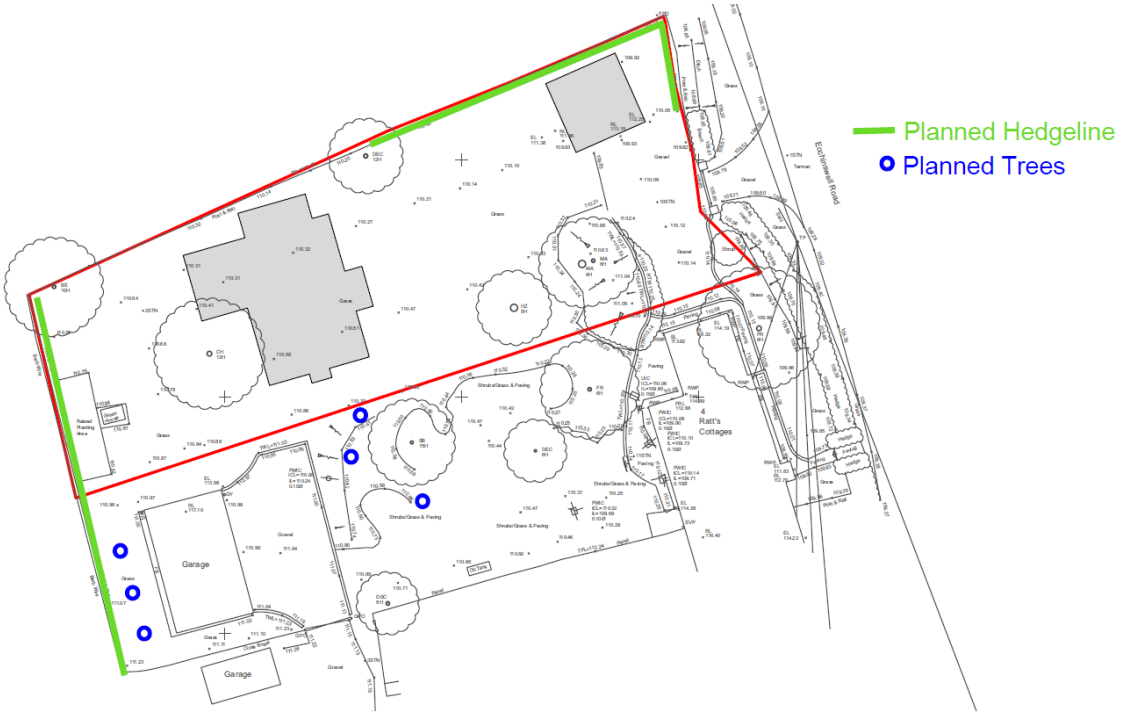


FIGURE 3: PROPOSED LAYOUT AND LANDSCAPING CONDITION FROM PREVIOUS DEVELOPMENT

2 Ecological Enhancement Plan

2.1 In order to provide the background for providing advice on appropriate ecological enhancements given in this EEP the findings of the PSWA and habitat condition assessment are taken into account.

2.2 Habitat or species-specific recommendations are given in **bold** below. Ecological enhancements and proposed locations of features are illustrated in Figure 4.

General

2.3 A toolbox talk will be prepared and given by the ecologist to the site contractors to ensure they are aware of the potential ecological constraints on the site.

Role of ECoW

2.4 An Ecological Clerk of Works (ECoW) will be appointed to provide a toolbox talk, be present for any activity identified below where ecological supervision is required and to supervise the works to the remove any existing habitat piles, or areas of long vegetation.

Habitat Protection and enhancement

General

2.5 In order to enhance the habitat for wildlife, the **planting schemes for the proposed development will use native species or species with known benefit to wildlife** wherever possible.

2.6 In line with best practice, **the use of peat in composts or topsoil will be avoided**.

Invasive Non-native species (INNS)

2.7 The strategy for INNS adopts the three-stage hierarchical approach adopted by the Convention on Biological Diversity which details prevention, detection/surveillance and control/eradication as the three main ways of dealing with invasive species (with prevention given the highest priority).

2.8 **Prevention includes:**

- Awareness raising amongst the public, the public sector (e.g. highways maintenance) and potential commercial pathways such as aquaculture, horticulture and the transport industry.
- Bio-security measures (including changing existing working practices where appropriate).
- Horizon-scanning for potential new threats and risk analysis of species and pathways identified.

2.9 **Detection / surveillance:** It is important that the presence of invasive non-native species is detected early, and the risks they pose are rapidly assessed. The sooner action is taken to address any threat, the greater the chance of success and the less costly it will be both in terms of biodiversity and other resources.

2.10 **Mitigation, control & eradication:** For the minority of species that are having a substantial negative effect, there are several options. These include mitigation of their negative impacts (for instance by establishing refuges for threatened species), control of the species, or eradication of the species where practicable. Control may be achieved through a spectrum of action including containing a species within a limited area, preventing (or slowing) its spread and localised population reduction or eradication in particular areas.

2.11 Invasive plant species can be treated and disposed of in a number of ways:

- Spraying with chemicals
- Pulling or digging out live, dead or dying plants
- Cutting back plants to prevent seed dispersal
- Burying them
- Burning them
- Off-site disposal at a registered facility

2.12 The method chosen should not endanger human health or the environment and native plant species should be re-established following removal of INNS. Government guidance of stopping INNS from spreading is available on the gov.uk website and should be followed.

Hedgerows and trees

2.13 All but one of the existing trees on the site are being retained. All existing hedgerow habitat on site is being retained. The tree should be removed outside of the bird nesting period if possible. Where tree removal has to be undertaken during bird nesting season a bird survey by a suitably qualified ecologist will be undertaken immediately prior to clearance in order to ensure that no nesting birds are disturbed by the works.

2.14 The proposed outline development includes significant hedgerow planting (corresponding to a biodiversity net gain for this linear habitat feature) along the

southern boundary between the separated plots; this **planted hedging will comprise of a mix of native berry and nut bearing species (i.e. such as beech, hawthorn, blackthorn and hazel).**

2.15 'Species Rich Mixed Native Instant Hedging' is commercially available in 1m lengths where the plants are established and 'knitted together' and include at least 8 species (hawthorn, blackthorn, guelder rose, wayfaring tree, spindle, crab apple, holly, hazel, field maple and buckthorn) per 6m of hedging.

2.16 Additional native and fruit trees are proposed to be planted within the site.

2.17 **The retained trees, retained hedgerow and newly planted hedgerows will all be protected from the works** area with heras fencing or similar in line with the dormouse method statement and tree protection zones. The fence will remain until the completion of all construction works and will be in line with BS 5837:12 to ensure all root protection zones are adequately protected.

Hedgerow Management Plan

2.18 **The existing boundary hedging should be rejuvenated through the addition of native fruit-bearing and flowering species where significant gaps are present. The new hedgerow planting should take place between October and March, and ideally January. Avoid planting in freezing weather or when the ground is waterlogged.**

2.19 Hedges must then be trimmed once to twice a year for the first five years in winter, early spring or late autumn outside of nesting bird season (March to August), or at the end of summer to ensure a dense structure.

2.20 After the first five years, the hedging must then be cut on a three-year rotation, cutting no more than 1/3 of the hedging within the site each time, avoiding nesting bird season. Once established, each section of hedging should be trimmed on all sides every three years and should aim to be maintained at least 1.5m wide. Any large gaps which begin to appear should be planted up with suitable species.

2.21 This cutting regime will ensure that a good yield of berries and flowers are produced by the hedgerow every year and that diverse hedgerow structures and heights are present for wildlife within the local area.

Planting and establishing trees

2.22 Correct planting and aftercare are crucial to the long-term survival of the tree.

2.23 Bare-rooted trees should be planted between November and March, with the roots kept cool and moist before planting. Container trees can be planted throughout the year, but if planted in the summer they will need a lot more watering. Planting should not be carried out during periods of frost.

2.24 Prior to planting, vegetation must be cleared in a one-metre circle where the tree will be planted. Competition for water and nutrients can severely affect trees, particularly when young. This circle around the tree should therefore be kept clear of grass and weeds for at least three years after planting, through weed-suppressant matting, application of a thick mulch or regular weeding.

2.25 Where the soil structure is good, maidens can be notch-planted. For larger trees, and where soil structure needs to be improved, a hole of sufficient size to accommodate the roots without bending them is required.

2.26 Trees should be staked with a short stake of no more than 30 cm above ground level. This will allow the tree to flex and strengthen the trunk and roots. When planting, the final soil level must be no higher than the root collar. The tree should be watered regularly and thoroughly for the first few weeks and during any dry spells for the next year.

2.27 Tree guards will be required to protect trees from wild animals, which eat the leaves and bark, and rub against the tree. Guards should be checked regularly as the trees grow and adjusted if they are causing the tree any damage.

2.28 Once trees are established, the sward can be allowed to grow up to the trunk and there should be no need to apply fertilisers. Guards should be maintained for at least 10 years.

Grassland

2.29 **To further enhance the site areas of grassland near the site boundaries the will be planted with an appropriate seed mix in autumn to provide additional beneficial wildlife habitat and will be subject to meadow management to improve the existing grassland.**

2.30 Some species take several years for their seed to germinate (this includes both sown and self-seeded) therefore the grassland will be subject to gradual improvement over a number of years. In the first year the grassland should be cut to maintain a height of 10-15cm and the cuttings should be removed.

2.31 From the second year the meadow should be cut at least once, in late summer/early autumn, to a height of 5cm, after the plants have flowered to ensure that they are able to set seed.

2.32 Yellow rattle can be introduced to further help diversify the species present within the grassland. This is a semi-parasitic plant which feeds off the nutrients in the roots of nearby grasses, reducing the vigorous growth of the grass and allowing more delicate grassland herb species to develop.

2.33 Additional seed will be sown in naturally occurring or created bare patches in subsequent years with an appropriate seed mix in order to aid the increase in floral diversity. Rank species such as common nettle, spear thistle, creeping thistle, broad-leaved dock, curled dock and common ragwort will be controlled if they begin to dominate; this can be achieved by a spring cut as necessary, spot-spraying or hand pulling.

Hazel Scrub

2.34 **To further enhance the site the existing small area of hazel scrub will be increased through additional planting.**

2.35 Scrub should be managed through the coppicing of individual hazels as required in order to maintain a hazel scrub band which will act as additional screening for the site. The scrub habitat should be managed on a minimum of a 4-year cycle, with no more than one quarter of the scrub band removed in any given year, this should take place in September/October to fall outside of the bird nesting season, but prior to the hibernation period when hibernating amphibians, reptiles and hedgehogs may be present.

2.36 Rank species such as common nettle, spear thistle, creeping thistle, broad-leaved dock, curled dock and common ragwort will be controlled if they begin to dominate; this can be achieved by a spring cut as necessary, spot-spraying or hand pulling. Tree saplings and scrub will be allowed to colonise the area without significant management intervention initially. Should scrub management be deemed necessary to allow saplings to thrive, this will be done through rotational cutting, avoiding key saplings. Additional native tree planting can be used to speed up reforestation if required.

Species Enhancement

Reptiles and amphibians

2.37 **To enhance the site for reptiles and amphibians a 'hibernaculum' will be created in a sunny corner in the north of the site.** This will use materials such as logs, inert hardcore, bricks or building rubble to form the body of each hibernaculum, ensuring that materials likely to decompose are not placed beneath bricks or rubble to avoid collapse. Woodchips or soil may be incorporated to fill some of the larger cavities within the structure.

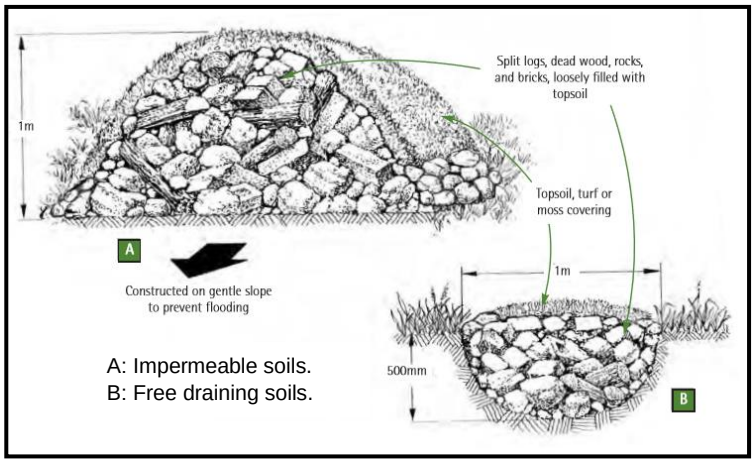
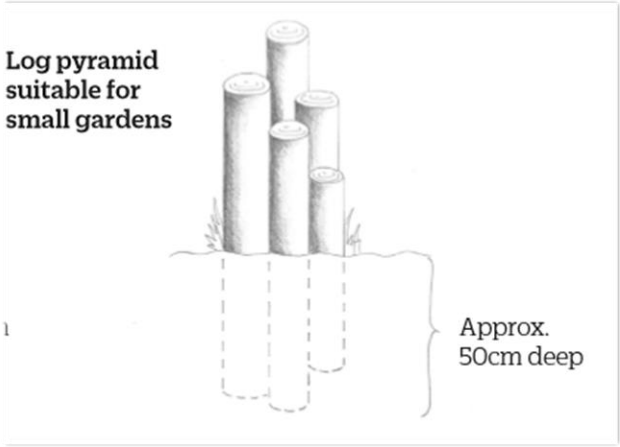


Diagram from Great Crested Newt Conservation Handbook

Stag Beetles

2.38 **A log stack will be created in a discrete corner in the south of the site to provide dead wood habitat features for stag beetle another species.**

2.39 A suitable logpile comprises of a variety of lengths of hard wood at least 5cm in diameter, this should be sighted in partial shade and the wood partially buried to prevent it drying out. See below diagram and picture below from the PTES 'how to build a loggery' factsheet, (*https://ptes.org/get-involved/wildlife-action/help-stag-beetles/*)



Birds

2.40 **Appropriate bird boxes will be installed on site.**

2.41 **A minimum of one small bird nest boxes will be installed on a retained tree or integrated into the proposed building on site to enhance the suitability of the site for nesting birds.**

2.42 Ideally bat boxes would be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) and should be installed at least 3m above the ground (where safe installation is possible), sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west facing).

2.43 Tree hung bird boxes will comprise a mix of traditional '32mm round holed' (below left: which are suitable for tits, sparrows, redstarts and nuthatches) and open fronted boxes (below right: these are suitable for pied wagtails, robins and wrens) and also ideally be woodcrete or similar hard wearing material (rather than the less durable traditional wooden boxes). Boxes should be installed with an aluminium nail or screw to prevent tree damage between 2m and 4m above ground for round holed and low down, below 2m, well hidden in vegetation for open fronted boxes and (unless shaded by buildings or trees) be facing north or east.

2.44 All of the above example nest boxes are available from the RSPB on line shop, (*https://shopping.rspb.org.uk/*).

2.45 Integrated bird boxes should comprise of swift bricks which are suitable for a range of species (below left), these should be installed at a minimum of 4m above the ground, north or east facing and with open flight access, or sparrow terraces (below centre) which should be installed in line with vegetation such as trees or hedge lines to allow the birds the use of jumping off points and be installed a minimum of 3m above the ground on a north or east elevation. Where suitable overhanging eaves are present house martin cups (below right) may also be suitable.

Bats

2.46 **A minimum of one appropriate bat box will be installed on a mature tree on site to enhance the suitability of the site for roosting bats or integrated within the new building.**

2.47 Ideally bat boxes would be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) and several boxes should be put up on a single tree facing in different directions to provide a range of conditions. They should be at least 4m above the ground (where safe installation is possible) and sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west).

2.48 Example tree mounted bat boxes are shown below: Schwegler 1FF bat box (below left, suitable for pipistrelle bats Pipistrellus sp.) and a Schwegler 2F bat box (below right, suitable for long-eared bats Plecotus sp.), or similar bat boxes.

2.49 Example integrated bat boxes are shown below: Integrate Eco Bat Box (below left), Habibat Bat box - Plain for rendering (below centre) and a Schwegler 1WI Summer and Winter bat box (below right) or similar bat boxes.

FIGURE 4: PROPOSED ECOLOGICAL ENHANCEMENTS & ENHANCEMENTS FROM PREVIOUS DEVELOPMENT

3 References

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