



Home Farm, Broadmoor, Abinger Common, Dorking, Surrey. RH5 6JY

07570 923905

[www.verdantecology.co.uk](http://www.verdantecology.co.uk)

September 2022

## **A Preliminary Ecological Appraisal**

for

### **The Bagging Shed**

at

### **Amberley Museum**

Survey conducted and report produced by;

**Jonathan Bradley**

BSc, MSc, TechCertArb, MArborA

Consultant Ecologist, Arborist and Land Manager

07570 923905 [jonathan@verdantecology.co.uk](mailto:jonathan@verdantecology.co.uk)

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## 1 **Executive Summary**

- Amberley Museum is applying for planning consent to renovate a building known as the Bagging Shed.
- Verdant Ecology was commissioned to conduct a baseline ecological appraisal.
- The directly-affected areas support protected ecological features (bats, nesting birds and, potentially, reptiles/hedgehogs/toads/dormice).
- The site's surroundings contain trees and other habitats with the potential for protected ecology but significant impacts on these can likely be avoided.
- Bat surveys are recommended (during May to August) in advance of a planning decision.
- Update surveys for Schedule 9-listed plants are recommended (during spring and summer).
- Mitigation measures (careful site clearance) for wildlife are recommended in order to avoid significant impacts.
- In summary, subject to the results of the bat surveys, likely significant impacts on protected ecological features can reasonably be avoided and/or offset, meaning they should not be a reason for refusing consent.

## 2 **Introduction**

Many ecological features are protected by legislation, policy and best practice. Where protected ecological features are likely to be present and likely to be affected, planning authorities are required (in advance of their decision) to request surveys, to consider the potential impacts of development and to make sure significant impacts are offset. They should also seek opportunities to improve the area for wildlife. See Appendices 5 and 6 for further information.

The word site henceforth refers to the bagging shed and at least 50m in any direction.

This report:

- Describes an initial ecological baseline survey to provide information on the natural features of the area.
- Describes and/or maps the habitats on and adjacent to the site.
- Considers the potential for habitats on/near to the site to support protected species and habitats.
- Considers this in relation to the proposals.
- Provides some suggestions for reducing the impacts of the project on wildlife.

## 3 **Survey**

### 3.1 **Desk Study**

Sites designated for nature and species/habitats of conservation concern near the site were considered using Natural England's online MAGIC resource. We also viewed OS maps and online satellite/aerial photographs for ponds nearby so as to consider the potential for great crested newts. We were provided with a record search by Sussex Biodiversity Record Centre.

### 3.2 **Field Survey**

A baseline habitat survey of the site (areas directly affected by the proposed development) and its immediate surroundings was conducted (based on CIEEM's Guidelines for Preliminary Ecological Appraisal) in September 2022. Habitat types and ecological features on the site and its surroundings were identified and plotted and then

compared to lists of protected habitats. Habitats and ecological features were then considered in terms of their suitability for protected species and those of conservation concern. Where the surveyor thought it appropriate, further inspections were made. In this case, for invasive plants, [REDACTED] field signs and bat roost potential/signs.

### 3.3 **Survey Limitations**

A baseline survey is not a complete set of surveys for/of protected ecological features. It is conducted so as to determine habitat types and ecological features. It may prompt further ecology survey work. September is not ideal for such a survey but is acceptable.

## 4 **Results**

### 4.1 **Our Background Research**

The site is the bagging shed at Amberley Museum, New Barn Road, Amberley, West Sussex. BN18 9LT and is at OS grid reference TQ02781194. A location plan is shown in Appendix 1. An aerial view of the site can be seen at <https://goo.gl/maps/KthURuzhHXgatiHW9>

Protected sites within 2km were considered (extended to 5km for SPA). Priority Habitats within 500m and outside already otherwise designated sites were considered.

Arun Valley SPA, SAC, SSSI and Ramsar site lies about 1.3km to the N. It is designated for its inundation vegetation and associated wildlife.

Amberley Mount to Sullington Hill SSSI lies about 1km to the E. It is designated for its chalk grassland and juniper scrub and associated wildlife.

Arun Banks SSSI lies about 1.2km to the S. It is designated for its inundation vegetation and associated wildlife.

Arundel Park SSSI lies about 1.5km to the SW. It is designated for its chalk grassland and woodland and associated wildlife.

The museum site, including the area affected by the proposals, is part of Amberley Chalkpits & Hacketts Copse LWS, designated for its bare chalk, cliffs, chalk grassland, marsh, scrub and woodland. Arun Valley, Watersfield to Arundel LWS, designated for its wetland habitats, lies just the other side of the road.

Priority habitats within 500m are;

- Ancient Semi-Natural Woodland - about 60m away to the S at its closest.
- Deciduous Woodland - immediately adjacent to the site to the S.
- Various wetland habitats associated with the River Arun about 250m away to the W.
- A pond about 80m to the NW (this has not been inspected so it may not qualify as Priority habitat).

One bat impact/mitigation licence has been awarded within about 2km of the site. This included Common and Soprano Pipistrelle, Brown Long-eared and Barbastelle bats.

There are records from the museum buildings of roosts of Serotine, Daubenton's, Natterer's, Common Pipistrelle, Brown Long-eared and Whiskered/Brandt's.

Great crested newt records occur in the wider area but not within 1.5km.

Arbeco reports from 2016 show that the bagging shed, office and bagmenders shed were bat roosts for Pipistrelle (species not defined) and Brown Long-eared.

#### 4.2 **Description of Site and Adjacent Habitats**

The bagging shed is a timber-framed building set against the brickwork of the kilns on the S side and abutting the locomotive and blacksmith's sheds on the E side. It is largely open-sided at this (E) end. It has timber cladding on other (N and W) facades. This is unlined except where the shop-fitting process occurred. It has a single pitch corrugated tin roof. There is a ceiling above part of the shop, creating a loft that is open-sided. The public entrance is formed by a shipping container that has been deposited within the building. The building is set in existing hardstanding. Just off site are the two buildings it abuts, several more buildings and several trees set in semi-natural vegetation. The wall of the kilns supports climbing/trailing plants. Shrubs overhang the SW corner of the building. See Appendix 2 for photographs of the site.

#### 4.3 **Habitats and Flora**

Some habitats, trees and plants are protected (see Appendices 5 and 6 for details). Approximately 40 varieties of plant are listed on Schedule 9 of the Wildlife and Countryside Act, making it an offence to cause them to be transplanted into the wild and requiring special licensing to take (parts of) them off-site.

The following ecological features/habitats have been discerned on/adjacent to the proposed development site.

##### 4.3.1 ***Bare ground/hardstanding***

This occurs around and within the building.

##### 4.3.2 ***Buildings***

The building has been described above. See Appendix 2 for photographs.

##### 4.3.3 ***Grassland***

The highway verge (potentially affected by peripheral work) supports rough grass and ruderal weeds. There is a lawn just off site to the E but this is unlikely to be affected. There is rough grassland atop the kiln wall but this is a Scheduled Monument so cannot/will not be affected.

##### 4.3.4 ***Invasive Plants***

No species listed on Sch. 9 of the Wildlife and Countryside Act were recorded. Note that the survey was conducted at a time of year when not all such-listed species were likely to be visible (e.g. three-cornered leek).

#### 4.3.5 **Lower Plants**

Some ferns/fungi/lichens/mosses occur on site. These have not been surveyed and it is not intended to do so because protected species are usually associated with unusual habitats, whereas habitats on site are relatively commonplace.

#### 4.3.6 **Ruderal weeds**

These occur on the highway verge, next to the steps just off site to the S and associated with the tree line that runs W, parallel to the public entrance access.

#### 4.3.7 **Trees**

There are several trees on the survey site but just off the work site. See Appendix 1 for their locations. T1 is an immature oak, T2 a semi-mature oak, these both growing in a lawn. T3 is a mature Ash and T4 a semi-mature horse chestnut, these both near the bottom of the steps and T5 is a semi-mature Ash on the highway verge.

#### 4.3.8 **Waterbodies**

Only one water bodies exists within 250m. This is about 80m away to the NW, across the road. It has not been inspected.

#### 4.3.9 **Woodland**

None on site. There is a woodland strip/treeline about immediately to the W, alongside the public access path. Another lies 60m away to the S, just N of the services yard. Beyond the services yard is ASNW.

#### 4.4 **Fauna**

Impacts on creatures with 'full' legal protection and on those protected by policy are a material consideration in planning decisions. The following list shows such creatures in alphabetical order and explains either why they are thought to be absent/unaffected or what potential there is for their presence. Where a species is not listed, (e.g. natterjack toad) this is because the habitats are considered wholly unsuitable and/or outside their range/distribution.

[REDACTED]

[REDACTED]

[REDACTED]

#### 4.4.2 **Bats**

On a scale of Negligible, Low, Moderate, High as described in Table 4.1 of the BCT 2016 guidelines, the building is considered to have Moderate suitability for roosts. It has a flat roof, no secluded voids, is draughty and light

by day but there are occasional crevices where timbers meet each other or are bedded in the kiln wall (see photos for examples).

Additionally:

- Work in 2016 by Arbeco found droppings indicative of Pipistrelle bats within the building.
- A few scattered droppings indicative of both Brown Long-eared and Pipistrelle bats were found during our inspection.
- The lining installed by the shop-fitters appears to have left gaps too large to be suitable and too low to be safe from predation but it is possible that these obscure potentially suitable cracks in the kiln wall.
- Evidence of roosting bats was found in the abutting locomotive and blacksmith's sheds and if bats are accessing/egressing these via the adjoining gables, work to the bagging shed could affect these.
- The two kilns have gaps in the flue sufficient to allow bat access to any gaps left when the chamber was filled with rubble.
- It is also likely that the covered space that the bagging shed provides will be used by bats as feeding roosts or to forage during poor weather (and a few scattered droppings were found, supporting the latter supposition).

Consequently, at least one dusk and one dusk or dawn survey are recommended.

Trees nearby (1 to 5) were all considered to have negligible suitability for roosts.

Regardless of the outcome of the recommended bat surveys, pollution (including light) will need to be controlled in order to prevent indirect impacts. Also, if the new build uses cladding that will allow bat access upon completion or into the future (e.g. tiles or timber cladding), they will need to be unlined or lined with 1F or 'bat safe' breathable membrane. It is possible that the presence of bats will amend the work schedule herein.

#### 4.4.3 **Birds**

##### **Barn Owls**

No trees or buildings on the site were considered suitable for nesting barn owls. Habitat on site and in the vicinity is considered unsuitable for foraging barn owls (small areas of short grass, close to a busy road and hemmed in by trees and buildings).

##### **National BAP-listed birds**

Habitats on or immediately around the site appear suitable for a range of birds of conservation concern (e.g. sparrow, song thrush, starling). However, the affected habitats are relatively commonplace, the affected area insignificant in size (a few square metres) and post-development enhancements can reasonably offset impacts.

##### **Breeding birds**

The building provides nesting sites for barn swallows. The building and vegetation just off site is also suitable for other 'common' species of birds (e.g. wren). These are protected from disturbance and harm whilst nesting. See 'Mitigation' for how to avoid impacts. Pollution prevention measures will also be needed.

#### 4.4.4 ***Dormice***

The overhanging and trailing vegetation is suitable for dormice. They are likely to occur locally. However, the temporary removal of a few square metres of vegetation (that will not fragment suitable habitat) is unlikely to be significant if it is removed as dictated by a competent ecologist and pollution prevention measures are followed (see 'Mitigation'). It seems reasonable to believe that these restrictions can be complied with, thus surveys are not recommended. In the event that dormice are found during development, work will cease immediately and a competent ecologist consulted.

#### 4.4.5 ***Great Crested Newts***

One waterbody exists within about 250m of the site (80m to the NW). This has not been inspected because even if it supports GCN, they are unlikely to be on site due to the facts that it is across a busy road and the site is almost entirely hardstanding. The highway verge that may be directly affected by the work is suitable but also across the road and is only a few square metres. Thus, careful site clearance as dictated by a competent ecologist is considered sufficient to address the nominal risk of GCN presence. Pollution prevention measures will be needed. If this advice is complied with, impacts are considered unlikely so surveys are not proposed. In the event that GCN are found during development, work will cease immediately and a competent ecologist consulted.

#### 4.4.6 ***Hedgehogs***

Habitats on and around the site are considered suitable. However, harm to individuals can be avoided by careful site clearance. Pollution prevention measures will be needed.

#### 4.4.7 ***Insects***

The site and surrounding area supports a range of habitats that are suitable for insects. These have not been surveyed for and it is not intended to do so because protected species are usually associated with unusual habitats, whereas habitats on site are relatively commonplace. Pollution prevention measures will be needed.

#### 4.4.8 ***Reptiles***

Habitat on site is unsuitable. Areas just off site (see 'Grassland' and 'Ruderal weeds' above) is suitable for 'common' reptiles (slow-worm, grass snake, adder and viviparous lizard). Both on and off site is considered unsuitable for smooth snake or sand lizard. The few square metres of suitable habitat temporarily directly affected by the proposed development (the highway verge) is unlikely to significantly affect their conservation status and harm to individual reptiles can be avoided by careful clearance in advance of development. Pollution prevention measures will also be needed. If this advice is complied with, surveys are not recommended.

#### 4.4.9 ***Toads***

Terrestrial habitats on site are considered marginally suitable. The surroundings are suitable. There is a pond nearby. However, harm to individuals can be avoided by careful site clearance and temporary impacts on a few square metres of suitable habitat is unlikely to affect their conservation status.



## 5 **Evaluation of Importance**

See Appendices 4 and 5 for an explanation of the legislation and policy related to ecological features. See Appendix 6 for an explanation of terms used by Verdant Ecology in evaluating ecological features.

These evaluations are made in the context of no mitigation.

### 5.1 **Designated Sites**

SPA/SAC should be considered of International importance. SSSI should be considered of National importance. Non-statutory sites (LWS/SNCI/SINC) should be considered of County importance. LWS should be of Local to District importance.

The site is within a LWS.

### 5.2 **Legally Protected Plants and Habitats**

No legally protected habitats or plants were found on site. Such-protected plants and habitats are therefore considered to be of Negligible importance.

### 5.3 **Legally Protected Fauna**

Apart from the bat roosts and bird nests identified, no evidence of legally protected fauna was found on site. The bat work will determine its importance for bats.

### 5.4 **Policy-protected Features**

Trees are material considerations in planning decisions.

Habitats, plants and fauna listed in National or Local BAP (Biodiversity Action Plans) or Priority Habitats/Species are protected by policy and if present and significant in size or setting would be of at least District/Borough Importance.

Designated Priority Habitats are unlikely to be significantly affected.

Fauna protected by policy (and not also protected legally) likely occur on or near site (e.g. hedgehogs, toads) but would be of no more than Local/Site importance.

## 6 **Impacts**

### 6.1 **Impacts Considered**

There is always potential for development work to contravene legislation and policy protecting native wildlife.

Impacts considered possible from a residential development are;

#### 6.1.1 **Harm to Individuals or Roost/Nest/Resting Places**

Individuals or their place of rest may be protected.

#### 6.1.2 **Habitat Loss**

Habitats may be protected in their own right or they may harbour protected species.

#### 6.1.3 **Exclusion, Isolation, Fragmentation**

Animals may be excluded from foraging or shelter by new roads, fencing, lighting, etc. Existing habitat may be broken up into smaller, less viable areas.

#### 6.1.4 **Pollution/Disturbance**

Such as air-borne dust, noise, vibration, heat or toxic substances and suspended solids in run-off or channel flow. These can be prevented by devising and complying with a pollution prevention plan. Special consideration should be given to controlling light pollution. Disturbance can arise from development action or come from people, post-development.

#### 6.1.5 **Compaction**

Activities such as storing materials, site staff parking or tracking machinery can damage soil structure and/or tree roots beyond the footprint of the actual construction. This can be minimised by defining all peripheral activities (see below) and by adhering to a Tree Protection Plan in line with BS 5837.

#### 6.1.6 **Peripheral Activities**

Consider; soil testing, fencing, drainage, service runs, temporary parking/offices/toilets, access routes, plant tracking, burning sites, storage/sorting areas etc. Any may damage ecological features.

### 6.2 **Impact Assessment**

See Appendix 7 for an explanation of terms used by Verdant Ecology in evaluating ecological features.

- 1) The integrity or value of the LWS is unlikely to be affected by the proposals.
- 2) Buildings with evidence of bats will be affected. Further surveys will be needed to determine the significance of these, in advance of a planning decision.
- 3) Buildings with evidence of swallow nests will be affected. Disturbance to these will need to be avoided.
- 4) No trees with bat roost potential seem likely to be affected.
- 5) The existing hardstanding should 'naturally' protect semi-natural habitats and existing trees (and root zones) from direct impacts, including peripheral impacts. This should be reinforced by tree protection fencing. The only exceptions to this are:
  - The use of the highway verge to effect work.
  - The intention to prune back overhanging vegetation at the SW corner.

Thus vegetation likely to support wildlife (e.g. nesting birds, dormice, hedgehogs) will be lost to effect the development. Given that the affected area will be a few square metres, will not sever habitat connectivity, the

effect is temporary and in part to prevent disturbance to wildlife, it is considered that wildlife-sensitive site preparation as dictated by a competent ecologist is appropriate.

6) Note that there is a pre-existing access track through a treeline from the site services area to the top of the kilns (see photo 16). If access was needed this way, this seems unlikely to have any extra impacts on protected ecological features. This conclusion might change if overhanging branches needed to be removed to allow this access. Thus, if vegetation clearance is needed, an ecological assessment of such impacts will be needed in advance.

Significant indirect impacts on protected ecological features off site always remain possible but if the recommendations herein are complied with and pollution (including light) prevention measures are successful, it is reasonable to believe that ecological impacts are likely to be Minor Negative at the Site/Local scale in the Short Term but with potential for Minor to Major Positive gain at the Site/Local scale.

## 7 Recommendations

### 7.1 Further Surveys

#### 7.1.1 *Sch. 9-listed Plants*

These do not need to be conducted before a planning decision but should be conducted before work on site commences. Sch.9-listed plant matter cannot leave site except with a special licence (even if this is accidental, via the treads of vehicle tyres for example). You should seek specialist advice (Verdant Ecology can provide such) on how to control the spread of these. Note that if such plants are found their control may need to commence many months prior to other development impacts.

#### 7.1.2 *Bats*

At least one dusk survey and one dusk or dawn survey should be conducted before a planning decision. The results of this will determine the need for further survey work and/or licensing. Surveys should be conducted between mid-May and mid-August.

#### 7.1.3 *Trees*

If peripheral impacts cannot be confined to existing hardstanding and/or the ash tree on the highway verge is still present when work starts, its root zone will need to be protected by using a cellular mattress (e.g. Cellweb). The specification for this will need a BS5837 survey.

### 7.2 Mitigation

1) Although the ash tree on the highway verge does not appear to present any distinct/significant/current hazard to highway users, it has ash dieback disease and is in decline. Consequently, it would be sensible/helpful to get this tree removed before work starts (on the basis that it will become a hazard to highway users and removing it when it has declined further would be more hazardous/costly for the contractor).

2) Define areas for peripheral impacts in areas of existing hardstanding (aside from the highway verge which seems likely to be needed). If work can be confined to existing vehicular access routes, fence them off. If it

cannot be so confined: a) tree roots may be at risk of harm - in which case, use tree protection fencing and/or a cellular mattress system and b) further careful vegetation clearance may be needed.

3) Careful, wildlife-sensitive site preparation as dictated by a competent ecologist. This will include:

- During winter (October to February inclusive) clear adjacent vegetation up to a distance of about 10m (to be confirmed by ecologist) and maintain as unsuitable for nesting/dormice during the development but otherwise keep it out of bounds (a buffer).
- Also do deconstruction and rebuild during the winter (in the case of swallows they tend to start nesting in April).

If avoidance by scheduling is not possible, seek advice from an ecologist about avoiding disturbance (there are no licences available to remove nesting birds in these situations).

4) Pollution prevention - a comprehensive, fool-proof pollution prevention plan demonstrating you will avoid significant indirect impacts on protected ecological features. Suggested minimum standards can be found in the COSHH regulations and the Environment Agency's Pollution Prevention Guidelines series. It must include constrained external lighting (minimal skylights, no uplighting, minimum number of fittings set as low as possible and not above 2m, downcast, hooded, with automated cut-offs - see BCT/ILE 2018, Bats and Artificial Lighting in the UK).

5) Enhance part of the site for wildlife. Namely, native tree/hedgerow planting and semi-natural grassland habitats with debris piles (logs and/or stones or inert rubble).

6) Any new buildings with cladding suitable for bats (e.g. overlap timber, clay tiles) will not use woven/breathable membranes for lining (to avoid harm to bats) unless they are approved by Natural England as 'bat safe' and, if proactive bat mitigation is deemed necessary by the bat survey work to come, membranes will be 1F bitumen. Note that this will influence detailed design to allow adequate ventilation and most dry ridge systems are not compatible with the needs of bats (but it will be possible to vent in other ways).

If any development was thus constrained, impacts are likely to be considered insignificant and with potential for significant biodiversity gain.

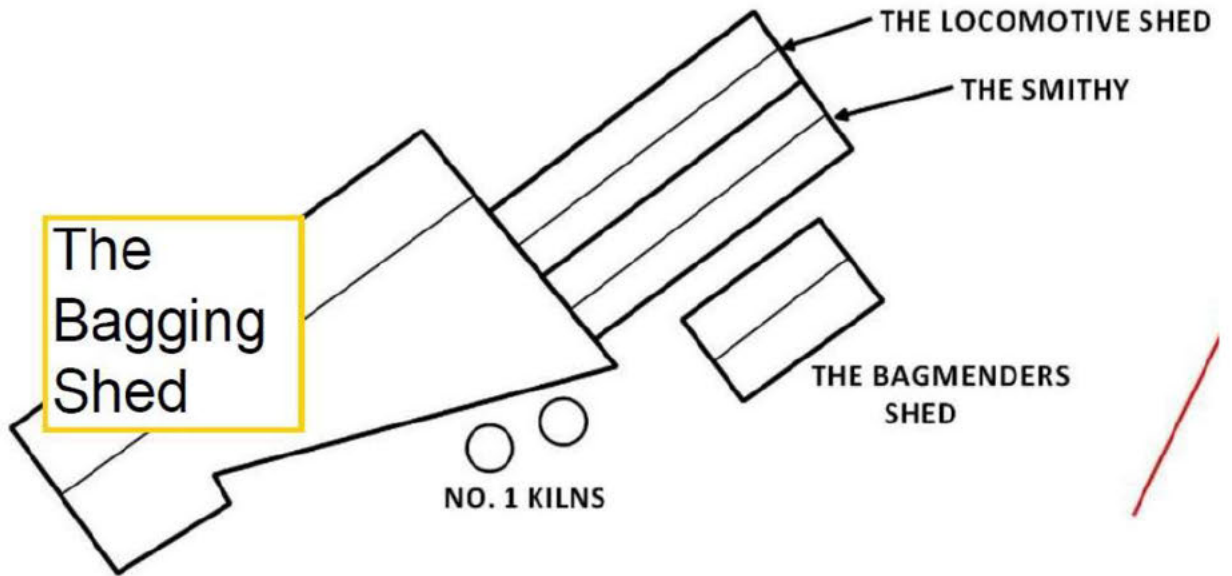
Subject to the bat survey results, protected ecological features should thus not be a reason for refusing planning consent.

### 7.3 **Advisory Notes**

Consult a competent ecologist;

- Every few months.
- If there are changes in plans.
- If new ecological information arises.

- 8 **Appendices**
- 8.1 **Appendix 1. Site Plans**
- 8.1.1 **The Site**



- 8.1.2 **Trees around Site**



8.2 **Appendix 2. Photographs of Existing Site**

Photo 1. Bagging shed – public entrance, viewed from W.



Photo 2. Public entrance, viewed from E.



Photo 3. Main void in bagging shed (with shop to rear), viewed from NE.



Photo 4. The S wall and one of the two kilns



Photo 5. The shop viewed from the W end, showing the loft area



Photo 6. The N wall.



Photo 7. The shipping container.



Photo 8. Where the bagging shed abuts the locomotive shed (evidence of bats just on the other side of these gables).



Photo 9. The roof



Photo 10. Trees 1 (rear) and 2 (fore)





Photo 11. Tree 4.



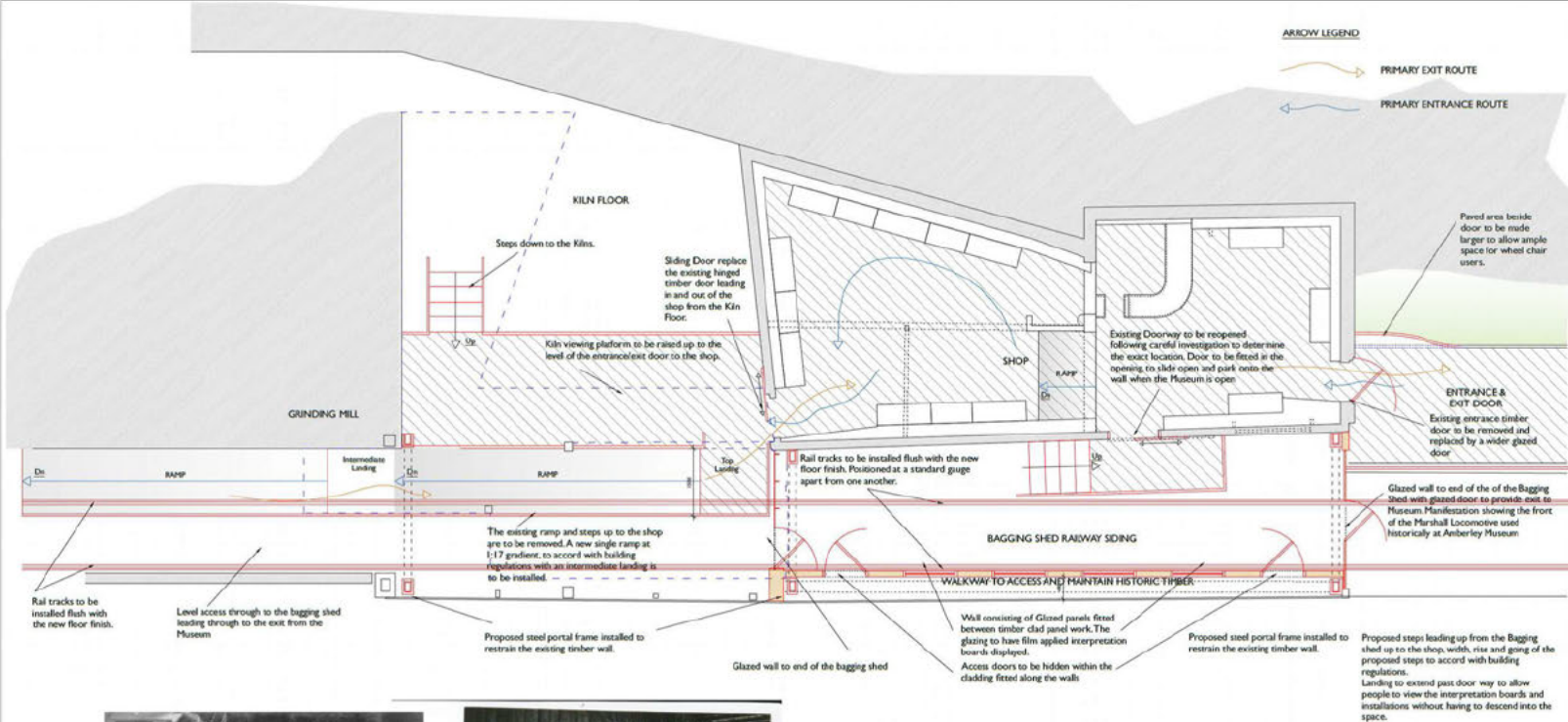
Photo 12. Tree 3 (tree 4 on RHS).



Photo 13. The highway verge and tree 5



Photo 14. The treeline next to the steps/footpath



Photograph of the Bagging Shed looking from within, what is now Amberley Museum back at the shop exit.



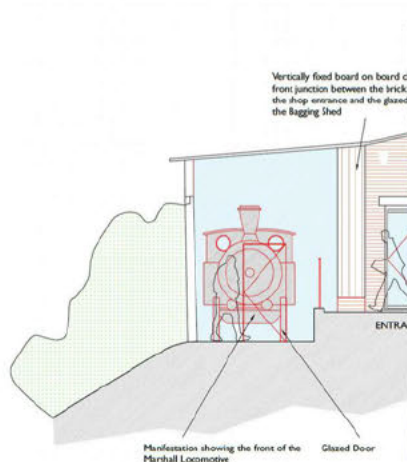
Photograph of the Bagging Shed taken in 1978 showing the opening to be reinstated



Photograph of the Bagging Shed looking from within, what is now Amberley Museum



Photograph of the Bagging Shed taken from down the road by the station showing the open end of the shed



Plan indicating the Proposed changes to the Bagging Shed



Photo 16.

Check all dimensions on site prior to commencement of work. Do not scale from this drawing except for planning purposes.

This drawing is the © copyright of JANE JONES-WARNER ASSOCIATES. This drawing has been produced for Amberley Museum for the project Bagging Shed and is submitted as part of the Search Scheme and is not intended for use by any other person or for any other purpose.

Notes -

**JANE JONES-WARNER ASSOCIATES**

Unit 7L, Chichester Enterprise Centre, Terrace Road, Chichester, PO19 8TX

RIBA #

T: 02393 190065 | 01243 167151  
 E: [mail@janjoneswarner.com](mailto:mail@janjoneswarner.com)  
 W: [www.janjanjoneswarner.com](http://www.janjanjoneswarner.com)

Revisions

Rev	Description	Date	Drawn
A	Amendments to account with Client Comments	15/09/2022	TH
	Design Plan and Elevation noted following completion of ground survey. Proposals amended to accord with these changes.	26/09/2022	TH

Amberley Museum - Bagging Shed

Architectural Plan as Proposed - Initial visit by Historic England

Rev	Date	Drawn
01	12/09/2022	TH
301	B	TH

Amberley M

## 8.4 **Appendix 4. Legislation, Policy and Licensing Relating to Protected Ecological Features**

All legally protected ecological features (the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010) are material considerations in planning decisions under the National Planning Policy Framework and as in ODPM and DEFRA 2005 and ODPM 2006. This means that before granting permission, planning authorities should consider the potential impacts of development on legally protected features and should be confident that any negative impacts can be mitigated for. Legally protected features are protected, whether planning permission is applied for, held, or not. Licensing from Natural England may be required to conduct work and mitigation. European Protected Species Mitigation Licences can usually only be applied for after planning permission has been received and all conditions relating to the protected feature have been released. They are only granted where there is 'overriding public need', 'no suitable alternative' and the conservation status of the species concerned remains favourable.

Additionally, some ecological features are 'Priority Species/Habitats' in the UK Biodiversity Action Plan. These equate to 'Habitats and Species of Principle Importance' and may be referred to as such. We use BAP because it has been around longer. Local Biodiversity Action Plans may also be in place for certain species/habitats not covered by the national BAP. The Countryside and Rights of Way Act 2000 and The Natural Environment and Rural Communities Act 2006 expect those in a position of influence to consider the impacts of their actions on biodiversity, especially Biodiversity Action Plan features and to seek opportunities to benefit them. Many BAP features (e.g. others) carry alternate and higher-level legal protection.

### **Trees**

Trees may be protected by being part of a habitat that is protected, by being in a Conservation Area or by having a Tree Preservation Order placed on them. Trees may be indirectly protected by harbouring protected species (e.g. bats) or by being part of a hedgerow protected by the Hedgerow Regulations. Impacts on veteran trees, ancient semi-natural woodland and habitats (trees?) that serve to connect are specifically mentioned in planning policy as to be avoided. Trees may also be protected by Forestry Commission restrictions on the quantity of timber arisings. Licensing may be needed to fell trees. If planning permission is granted it overrides other protection mechanisms. The standard for assessing and protecting trees on and near development sites is BS 5837.

### **Hedgerows**

Some hedges may be classed as 'Important' under the Hedgerow Regulations 1997 and afforded legal protection accordingly. Receipt of planning permission overrides the restriction of these regulations. [REDACTED]

### **Habitats**

Many areas are already designated for wildlife conservation. Some areas not designated may be protected by various legislation and policy if they are of a particular habitat type. These are many and varied.

### **Schedule 9 Plants**

Under the Wildlife and Countryside Act it is an offence to cause any plant on Sch.9 to be transplanted in the wild. This includes accidental propagation. Arisings containing any such plant matter are a controlled waste and if leaving the site must do so via an authorised waste carrier with a waste transfer note under The Environmental Protection (Duty of Care) Regulations 1991.

### **Amphibians**

Great crested newts and their habitats are legally protected by The Conservation of Habitats and Species Regulations 2010 and The Wildlife and Countryside Act 1981. Combining the legislation means it is an offence to; intentionally or recklessly kill, injure, take or disturb a GCN (including eggs) or damage, destroy or obstruct access to any structure or place used for shelter, breeding or protection. If GCN or their habitat is affected, licensing will be needed, significant delays are possible and habitat enhancements will be needed. Natterjack toads are similarly protected but are rare and localised in distribution. Common toads are listed as a national BAP species meaning those in a position of influence are expected to seek opportunities to improve their conservation status. For toads, careful site clearance and habitat enhancements may be appropriate.

[REDACTED]

### **Bats**

The main items of legislation protecting bats in England are The Conservation of Habitats and Species Regulations 2010 and The Wildlife and Countryside Act 1981. Combining the legislation means it is an offence to; intentionally or recklessly kill, injure, take or disturb bats, or to damage, destroy or obstruct access to any structure or place used for shelter, breeding or protection. Bat roosts are protected even if unoccupied. Bats may also be indirectly protected by virtue of their association with protected trees or veteran trees and habitats that serve to connect (both specifically mentioned in the NPPF) and hedgerows (Hedgerow Regulations 1997). If impacts on bat roosts are likely, further survey and licensing will be needed, significant delays are possible and habitat enhancements will be needed.

### **Birds**

Under the Wildlife and Countryside Act 1981, all birds are protected from disturbance at the nest, as are the nests. Some (Schedule 1) birds (e.g. barn owls) are protected whilst near the nest. The conservation of species that are rare and/or in decline (e.g. BAP-listed/RSPB's red-listed) should be considered by in the planning process. Work must not disturb nesting birds. Habitat enhancements are likely to be appropriate.

### **Dormice**

The main items of legislation protecting bats in England are The Conservation of Habitats and Species Regulations 2010 and The Wildlife and Countryside Act 1981. Combining the legislation means it is an offence to intentionally or recklessly disturb or harm dormice, damage, destroy or obstruct access to places used for shelter or protection. If they are present and impacts are likely, further survey and licensing will be needed, significant delays are possible and habitat enhancements will be needed.

### **Hare, Harvest Mice and Hedgehogs**

These are listed on the national BAP and/or as Species of Principle Importance meaning those in a position of influence are expected to seek opportunities to improve their conservation status. This usually means careful site preparation and post-development habitat enhancements.

### **Insects**

Some species have full legal protection but these tend to be rare/specialised. Some species are BAP-listed meaning those in a position of influence are expected to seek opportunities to improve their conservation status. This usually means post-development habitat enhancements.

### **Other Invertebrates**

White-Clawed Crayfish are fully protected. Some molluscs are fully protected.

### **Reptiles**

Common reptiles are protected against killing and injury. They are also BAP-listed meaning those in a position of influence are expected to seek opportunities to improve their conservation status. Smooth snakes and sand lizards have further legal protection but have very specialised habitat requirements and a limited, well-documented range. If common reptiles are found, a population estimate is then obtained and this determines the level of effort exerted on a translocation operation. This usually involves ring-fencing the site, capturing individuals, gradual site clearance and may take several months. Note that the translocation operation (if required) would also need to be conducted in fine weather between May and September. It is usually necessary to enhance the receptor site and secure its long-term future before starting the translocation operation.

## **8.5 Appendix 5. What Policy/Legislation Means for You**

The onus is on the developer to provide enough information about protected ecological features that are likely to be present and likely to be affected so as to enable the planning authority to make an informed decision as to whether the development will have negative impacts on the protected features. If protected features are found to be present and affected, the developer must demonstrate to the planning authority how, in principle, the work can be carried out without negative impacts overall. Those involved should seek opportunities to enhance the ecological feature.

Planning permission should only be given if the status of the affected protected feature can be maintained or enhanced and if measures are taken to avoid harming individuals. Recent changes in legislation and policy are increasing the emphasis on expecting improvements or enhancements.

Changes to the law in 2007 also removed certain defences – the most significant of which was that of an offence being excusable when ‘an incidental result of an otherwise lawful operation’ (such as planning permission). Further changes in early 2009 mean remaining defences (such as health and safety issues) no longer apply if there was a suitable alternative and the action negatively affects the favourable conservation status of the species concerned (individuals are still protected from harm by the Wildlife and Countryside Act).

If planning permission is granted, a European Protected Species mitigation licence from Natural England may be available - to protect you from what may otherwise be an offence (disturbance, destruction of roosts, etc.). Such a licence is only granted if;

- there is no reasonable alternative (e.g. site),
- it is in the overriding interest of the public,
- the population of concern will remain in favourable conservation status.

Local authorities must also consider these three conditions when making their decision.

The licence application (if needed) will have to justify the need for your proposed actions. It will also have to include a comprehensive plan that seeks to preserve habitats and any roosts, minimise disturbance, prevent killing or injury, ensure a continuation of suitable habitat and provide enhancements. It is usual for several years post-construction monitoring of mitigation to be a condition of licensing.

## 8.6 Appendix 6. Assessment and Evaluation Tables Used by Verdant Ecology

Relative Terms in Assessment and Evaluation of Ecological Features and Potential Impacts

Importance of Ecological Feature	Area of Impact
Negligible	Negligible
Local/Site	Local/Site
District/Borough	District/Borough
County	County
Regional	Regional
National	National
International	International
<b>Duration</b>	
	<b>Extent of Change</b>
	Major negative
Short term (1-5 years)	Minor negative
Medium term (5-20 years)	Negligible/Neutral
Long term (>20 years)	Minor positive
	Major positive

Matrix for Estimating the Significance of Impacts

		Degree of Impact				
		Major negative	Minor negative	Negligible	Minor positive	Major positive
Geographic Scale	International	Major	Major	Negligible	Major	Major
	National	Major	Major	Negligible	Major	Major
	Regional	Major	Moderate	Negligible	Moderate	Major
	County	Moderate	Minor	Negligible	Minor	Moderate
	District/Borough	Moderate	Minor	Negligible	Minor	Moderate
	Local/Site	Minor	Negligible	Negligible	Negligible	Minor

## Appendix 7. References

- **Bat Conservation Trust and Institute for Lighting Engineers** (2018). Bats and Artificial Lighting in the UK. <https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?>
- **Joint Nature Conservation Committee** (1993). Handbook for Phase 1 habitat survey: A technique for environmental audit. JNCC, Peterborough.
- **National Rivers Authority** (1992). River Corridor Survey Methods and Procedures, Conservation Technical Handbook No. 1, NRA, London.
- **Institute of Environmental Assessment** (1995). Guidelines for Baseline Ecological Assessment. E & FN Spon, London.
- **Institute of Ecology and Environmental Management** (2017). Guidelines for Preliminary Ecological Appraisal. IEEM, Winchester.
- **Institute of Environmental and Ecological Management** (2006). Guidelines for Ecological Impact Assessment in the United Kingdom.
- **MAGIC**. Natural England's online land-use information resource. [www.magic.gov.uk](http://www.magic.gov.uk)
- **English Nature** (2004). Reptiles: Guidelines for Developers. English Nature, Peterborough.
- **Froglife** (1999). Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Peterborough.
- **Froglife** (2001). Great Crested Newt Conservation Handbook, Froglife, Halesworth.
- **Bray, R. and Gent, T.** (1997). Opportunities for Amphibians and Reptiles in the Designed Landscape. Science Series No.30, Natural England, Peterborough.
- **Gent, A.H. and Gibson, S.D.** eds (1998). Herpetofauna Workers Manual. Joint Nature Conservation Committee, Peterborough.
- **Gregory RD et al** (2002). The Population status of birds in the UK – Birds of conservation concern: 2002-2007 British Birds 95 410 – 450 <http://www.bto.org/psob/index.htm>
- **Bat Conservation Trust** (2012). Bat Surveys – Good Practice Guidelines. Bat Conservation Trust, London. 2<sup>nd</sup> Ed. [www.bats.org.uk/publications.php?keyword=bat+surveys&month=&year=&category=&search=Search](http://www.bats.org.uk/publications.php?keyword=bat+surveys&month=&year=&category=&search=Search)
- **Bat Conservation Trust and Institute for Lighting Engineers** (2008). Bats and Lighting in the UK. [http://www.bats.org.uk/pages/bats\\_and\\_lighting.html](http://www.bats.org.uk/pages/bats_and_lighting.html)
- **Stone, E.L.** (2013) Bats and Lighting: Overview of Current Evidence.
- **English Nature** (2006). The Dormouse Conservation Handbook (second edition). English Nature, Peterborough.
- **JNCC** (2009). List of Species of Conservation Concern [http://www.jncc.gov.uk/Files/Taxon\\_designations\\_20091123.zip](http://www.jncc.gov.uk/Files/Taxon_designations_20091123.zip)
- **Wigginton, M.J.** ed. (1999). British Red Data Books: 1. Vascular plants, 3<sup>rd</sup> ed. Joint Nature Conservancy Committee, Peterborough.
- **Rose, F.** (1981). The Wild Flower Key. Penguin, London.
- **Fitter, R and Fitter, A** (1984). Grasses, Sedges, Rushes and Ferns. Collins, London.
- **Stewart, Pearman & Preston** (1994). Scarce Plants in Britain and Ireland.
- **BS 5837** (2012). Trees in Relation to Design, Demolition and Construction: Recommendations. BSI.
- **Kirby, K. and Goldberg, E.** (2003). Ancient Woodland: guidance for local authorities. English Nature, Peterborough
- **Office of the Deputy Prime Minister and the Department for the Environment, Food and Rural Affairs** (2005). Government Circular 06/05 Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. [www.odpm.gov.uk/index.asp?id=1144318](http://www.odpm.gov.uk/index.asp?id=1144318)
- **Office of the Deputy Prime Minister** (2006). Planning for Biodiversity and Geological Conservation – A Guide to Good Practice. [www.communities.gov.uk/documents/planningandbuilding/pdf/143792.pdf](http://www.communities.gov.uk/documents/planningandbuilding/pdf/143792.pdf)
- **Department for Communities and Local Government** (2007). The Town and Country Planning (Environmental Impact Assessment) (England) (Amendment) Regulations 2007.
- **Wildlife and Countryside Act 1981.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Hedgerow Regulations 1997.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Conservation (Natural Habitats, &c.) Regulations 1994.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Conservation of Habitats and Species Regulations 2010.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Countryside and Rights of Way Act 2000.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The National Planning Policy Framework 2012.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Town and Country Planning Act 1990.** [www.opsi.gov.uk](http://www.opsi.gov.uk)

- **The Town and Country Planning (Trees) Regulations 1999.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **The Natural Environment and Rural Communities Act 2006.** [www.opsi.gov.uk](http://www.opsi.gov.uk)
- **Environment Agency.** Pollution Prevention Guidelines (various), [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)
- **Health and Safety Executive (2002).** Control of Substances Hazardous to Health Regulations.
- **CIRIA.** Guidance on Sustainable Drainage Systems. [www.ciria.org.uk](http://www.ciria.org.uk)
- **Natural England (2018).** The MAGIC Application. [www.natureonthemap.naturalengland.org.uk/MagicMap.aspx](http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx)