

Preliminary Ecological Appraisal

Norfolk Centre
Mill Road
Arundel



Spatial Ecology

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January 2025

Contents

Summary	4
1 Introduction.....	5
2 Assessment Method	5
2.1 Habitats and Site Designations	5
2.2 Birds	6
2.3 Badgers.....	6
2.4 Bats.....	7
2.5 Hazel Dormouse.....	7
2.6 Hedgehogs	8
2.7 Reptiles	8
2.8 Amphibians.....	8
2.9 Aquatic Mammals.....	9
3 Planning Policy	9
3.1 National Planning Policy	9
3.2 Local Planning Policy.....	11
3.2.1 Horsham District Planning Framework-November 2015.....	11
3.2.2 South Downs Local Plan 2014-2033.....	Error! Bookmark not defined.
4 Findings and Recommendations	11
4.1 Site Designations	11
4.1.1 Conclusion:.....	12
4.1.2 Recommendation:	12
4.2 Habitats.....	12
4.2.1 Rough grassland in floodplain wetland mosaic	Error! Bookmark not defined.
4.2.2 Fen, rush meadows and reedbed	Error! Bookmark not defined.
4.2.3 Hedges.....	Error! Bookmark not defined.
4.2.4 Scrub and trees	13
4.2.5 Ruderal habitats	Error! Bookmark not defined.
Conclusion:.....	13
Recommendation:	13
4.3 Individual Species / Group Assessment.....	14
4.3.1 Birds	14
Conclusion:.....	14
Recommendation:	14
4.3.2 Badgers.....	14
Conclusion:.....	14

Recommendation:	14
4.3.3 Bats.....	14
Conclusion:.....	15
Recommendation:	15
4.3.4 Hazel Dormouse.....	16
Conclusion:.....	16
Recommendation:	16
4.3.5 Hedgehog	16
Conclusion:.....	16
Recommendation:	16
4.3.6 Reptiles	16
Recommendation:	16
4.3.7 Amphibians.....	16
Conclusion:.....	17
Recommendation:	17
4.3.8 Other Mammals	17
Conclusion:.....	17
Recommendation:	17
4.3.9 Invertebrates	17
Recommendation:	17
4.3.10 Schedule 9 Plants	18
5 Opportunities for Biodiversity Enhancement.....	18
5.1 Biodiversity Net Gain	18
6 Overall Conclusions	18
6.1.1 Further surveys and mitigation required:	18
7 Caveats and Limitations.....	19
8 References	21

Summary

- This document represents a preliminary ecological appraisal and protected species risk assessment commissioned for the Norfolk Centre at Arundel to support an upgrade the storage container from a 20 foot to 30 foot unit(Figure 1.1).
- It is concluded due to the scope and scale of the proposal that the projects zone of influence has limited potential for harm to biodiversity, but there are a number of sensitivities that will have to be considered.
- Where there is potential for impacts to biodiversity interest appropriate mitigation measures have been proposed.

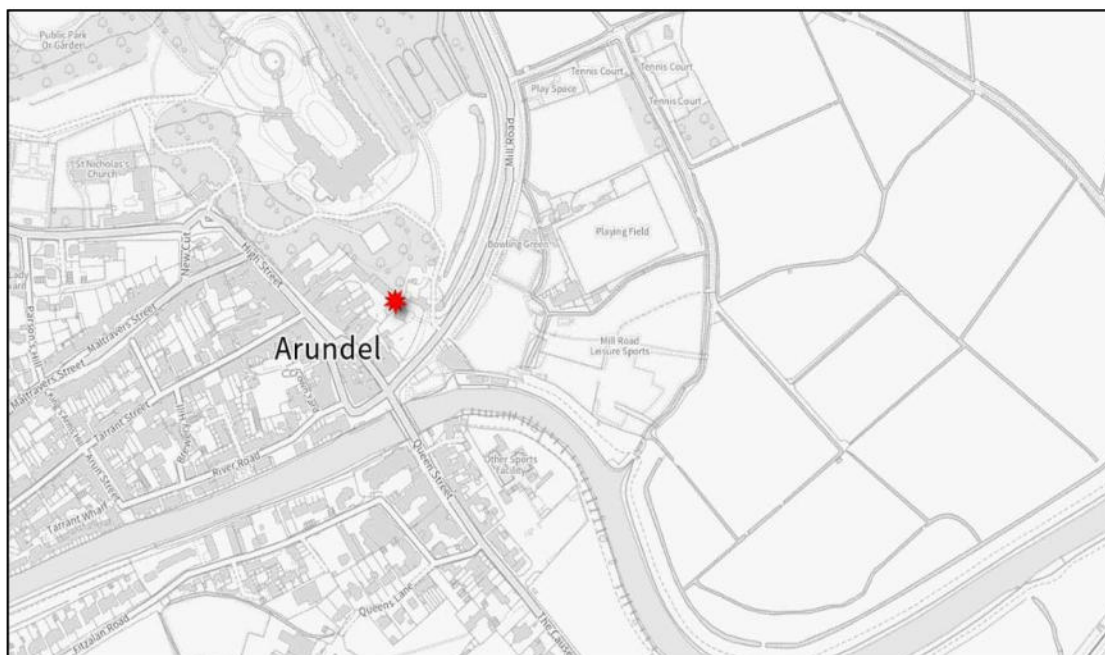


Figure 1.1 – Location of Norfolk Centre, storage container upgrade.

1 Introduction

Ed Rowsell of Spatial Ecology was commissioned to undertake a preliminary ecological appraisal of the proposed storage container upgrades and its immediate zone of influence. Ed Rowsell holds a BSc Hons in Ecology and has been a practising professional ecologist for over 25 years, a member of the Association of Local Government Ecologists and a volunteer for the National Bat Monitoring Programme.

2 Assessment Method

A desktop assessment was undertaken assessing data from Defra's Magic Map Application (www.magic.gov.uk) and aerial imagery. In addition, a site visit was undertaken on 22.03.2024 by Ed Rowsell, an experienced ecologist and habitat surveyor.

Although it is outside of the recognised survey seasons for some species or species groups, a reasonable assessment can still be made on the potential suitability of a site for these species.

2.1 Habitats and Site Designations

The site was assessed with regard to the habitats present in line with JNCC Guidelines for Phase 1 Habitat Survey (2003) and CIEEM Guidelines for Preliminary Ecological Appraisal (2017). A species list was also recorded during the site visit and a desktop assessment undertaken utilising data from the Magic Map Application and aerial imagery.

The Magic Map Application and designated sites view were searched to identify any relevant designations. Various site-based designations can be considered to be of international importance (Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar), searched for within a 12km radius; national importance (Site of Special Scientific Interest (SSSI), National Nature Reserves (NNR)) within a 7km radius; or local importance (Site of Importance for Nature Conservation (SINC), Local Nature Reserve (LNR)) searched within

1km radius of the site. Sites within this hierarchy receive varying levels of legal or policy level protection. Certain habitats and features of habitats (ancient woodland and veteran trees) are considered under the National Planning Policy Framework (NPPF) as irreplaceable habitat.

Many habitats are considered to be of principle importance under the Natural Environment Rural Communities (NERC) Act 2006, hereafter referred to as the 'NERC Act' and local authorities and other public bodies have a legal duty to have regard for their conservation. Because of this they are a material consideration in the planning process.

The requirements for mandatory Biodiversity Net Gain (BNG) arising from the Environment Act (2021) were considered during the survey. Habitat types and conditions were recorded in accordance with the UKhab and BNG guidance.

Limitations: The survey was undertaken outside of the optimal survey season for some botanical interest. However, on the whole a habitat level assessment can be effectively undertaken at any time of year.

2.2 Birds

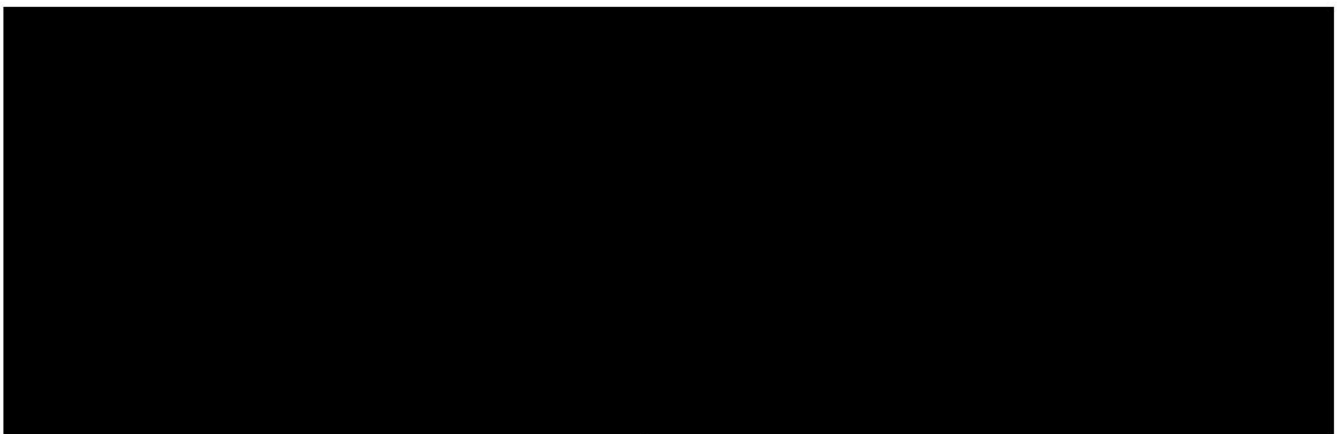
A desktop study was undertaken utilising data from the Magic Map Application and designated sites view. Any birds present during the field survey were identified visually or by vocalisations and in addition suitable habitat assessed for over-wintering and bird nesting potential.

Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979, and is transposed into UK Law through the Conservation of Habitats and Species Regulations 2017 (as amended). Potential SPA's are provided the same level of protection as classified sites. Ramsar sites are wetlands of international importance designated under the Ramsar Convention 1971; it is UK policy to give Ramsar sites the same level of protection as SPAs.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to destroy or damage the nest of birds of any species. In addition, certain species covered by Schedule 1 of the Act are specially protected.

Many bird species are species of principle importance under the NERC Act, and local authorities and other public bodies have a legal duty to take their conservation into account. Because of this they are a material consideration in the planning process.

Limitations: The site visit was undertaken outside of the optimal surveying season for some bird species.



2.4 Bats

Ground level assessment of structures and trees was undertaken to assess their potential to provide roosting or foraging opportunities to bats in accordance with 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2024). Observed significant features suitable for roosting bats were recorded, but no systematic external or internal inspection was undertaken.

All bat species are legally protected under Annex IV of the EC Habitats and Species Directive which is transposed into UK law via the Conservation of Habitats and Species Regulations 2017 (as amended). All species of bat are also protected under the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Deliberately kill, injure or capture bats;
- Deliberately disturb bats in such a way as to be likely to significantly affect i) the ability of any significant group of bats to survive, breed or rear or nurture their young, or ii) the local distribution or abundance of bats;
- Intentionally or recklessly disturb any bat whilst it is occupying a roost;
- Damage or destroy bat roosts;
- Intentionally or recklessly obstruct access to a bat roost.

Seven UK bat species are listed as species of principle importance under Section 41 of the NERC Act, and local authorities and other public bodies have a legal duty to take their conservation into account. Because of this they are a material consideration in the planning process. The seven species listed are: Barbastelle bat (*Barbastella barbastellus*); Bechstein's bat (*Myotis bechsteinii*); Noctule bat (*Nyctalus noctula*); Soprano pipistrelle bat (*Pipistrellus pygmaeus*); Brown long-eared bat (*Plecotus auritus*); Greater horseshoe bat (*Rhinolophus ferrumequinum*) and Lesser horseshoe bat (*Rhinolophus hipposideros*).

Limitations: Although not during the active season for all types of bat roosts, a full preliminary bat survey was undertaken a under the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2023).

2.5 Hazel Dormouse

An assessment of the suitability of the habitat, any visible field signs were undertaken. Habitat suitability and visible fields signs were assessed in accordance with the 'Hazel Dormouse Conservation Handbook' (Bright et al. 2006). The Hazel Dormouse (*Muscardinus avellanarius*) is protected under;

- Wildlife and Countryside Act 1981 (as amended)

- Countryside and Rights of Way Act 2000
- The NERC Act 2006
- Conservation of Habitat and Species Regulations 2017 (as amended)

An offence could be committed by:

- Deliberately capture, injure or kill hazel dormice;
- Damage or destroy a dormouse resting place or breeding site;
- Deliberately or recklessly disturb a hazel dormouse while it is in a structure or place of shelter or protection;
- Block access to structures or places of shelter or protection;
- Possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice.

Limitations: No systematic search was undertaken for field signs.

2.6 Hedgehogs

The West European Hedgehog (*Erinaceus europaeus*) is afforded partial protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), making it illegal to kill or capture wild hedgehogs using certain methods such as snares or traps. They are also listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of hedgehogs. Hedgehogs are also listed under the NERC Act as being of principal importance for maintaining and enhancing biodiversity in England. This act requires all public bodies including Local Authorities to have regard for biodiversity conservation when carrying out their functions.

Limitation: No systematic search was undertaken for field signs.

2.7 Reptiles

Habitat suitability for reptile species was assessed in accordance with HGBI guidance.

All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended), making it illegal to intentionally or recklessly kill or injure a common reptile. Rare reptiles, which include Smooth Snake (*Coronella austriaca*) and Sand Lizard (*Lacerta agilis*) also receive legal protection under the Conservation of Habitats and Species Regulations 2017 (as amended). It would be an offence to deliberately injure, kill, capture or disturb a rare reptile, or to damage or obstruct any place used for shelter or protection. Rare reptiles may only be disturbed by licensed ecologists.

All reptile species are species of principle importance under the NERC Act, and local authorities and other public bodies have a legal duty to take their conservation into account. Because of this they are a material consideration in the planning process.

Limitations: No systematic search was undertaken for field signs.

2.8 Amphibians

An assessment of potential aquatic and terrestrial amphibian habitat was undertaken; for great crested newts this includes consideration of the criteria outlined in Oldham et al. (2000). An assessment of nearby habitat was undertaken and NE . Of most relevance here is the Great Crested Newt (*Triturus cristatus*), which is the only fully protected species potentially present.

Great crested newts are listed on Appendix II of the Bern Convention and on Annexes II and IV of the EU Natural Habitats Directive. In England and Wales the Great Crested Newt

(*Triturus cristatus*) is protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Offences can be committed through:

- Capturing, killing, disturbing or injuring great crested newts deliberately;
- Damaging or destroying a breeding or resting place;
- Obstructing access to their resting or sheltering places (deliberately or by not taking enough care);
- Possessing, selling, controlling or transporting live or dead newts, or parts of them, or taking great crested newt eggs.

Limitations: No systematic search was undertaken for field signs.

2.9 Aquatic Mammals

Habitat suitability was assessed, particularly with regard to the Water Vole (*Arvicola amphibious*) and Otter (*Lutra lutra*). Habitat suitability for the water vole was assessed in line with 'The Water Vole Conservation Handbook' (Strachan et al. 2011) and for the otter in accordance with 'Ecology of the European Otter' (Chanin, 2003).

Water voles and their habitat are provided full legal protection under Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981 (as amended), which makes it illegal to intentionally kill, injure or take water voles and to damage, disturb or destroy their 'place of shelter', i.e. their habitat. The species is also listed as a species of principle importance under Section 41 of the NERC Act.

The otter is a European Protected Species (EPS) and is also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

You are breaking the law if you:

- Capture, kill, disturb or injure otters (on purpose or by not taking enough care);
- Damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- Obstruct access to their resting or sheltering places (deliberately or by not taking enough care);
- Possess, sell, control or transport live or dead otters, or parts of otters.

Limitations: No systematic search was undertaken for field signs.

3 Planning Policy

3.1 National Planning Policy

3.1 Environment Act 2021

Schedule 14 of the Environment Act 2021 requires new developments requiring planning permission to deliver a minimum of 10% Biodiversity Net Gain (BNG). BNG

will be measured using Natural England's Statutory Biodiversity Metric and habitats will need to be secured for at least 30 years.

The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other developments can be produced.

Of particular relevance in this context is section 15 - Conserving and enhancing the natural environment, which includes the following provisions:

Paragraph 187 - December 2024

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- (a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- (b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- (c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- (e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- (f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

Paragraph 193 - December 2024

When determining planning applications, local planning authorities should apply the following principles:

- (a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- (b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is

where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

(c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

(d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

3.2 Local Planning Policy

The site sits within Arun District Council. Arun District Council have an adopted Local Plan, 'Arun Local Plan'- 2018'. The policies most relevant to the biodiversity interest are shown below.

3.2.1 Arun Local Plan 2011-2031- 2018

Policy ENV SPI Strategic Policy:- Natural Environment

Arun District Council will encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites. Where possible it shall also promote the creation of new areas for habitats and species. In relation to designated sites, development will be permitted where it protects sites listed in Table 17.1.17.7 that are recognised for the species and habitats contained within them.

There are subsequent policies **ENV DM1- 'Designated sites of biodiversity or geological importance'** that highlights the hierarchy of sites and protection requirements and **ENV DM3- Biodiversity Opportunity Areas'**. These policies extend and amplify the basic principles of the above policy.

4 Findings and Recommendations

4.1 Site Designations

There are 2 national network sites are located within 12km, but no National Nature Reserves (NNR) within 7km, however, 7 SSSI's are within 7km of the scheme (Table 4.1.1).

Table 4.1.1: Statutory Environmental Designations within 12km of the site for national network sites and 7km from Sites of Special Scientific Interest.

Statutory Nature designations	Designation	Distance and Direction
Arun Valley	SPA	6km North East
Arun Valley	SAC	6km North East

Arun Valley	Ramsar	6km North East
Duncton to Bignor Escarpment	SAC	7km North West
Arundel Park	SSSI	350m North
Arun Banks	SSSI	2.6km North East
Fairmile Bottom	SSSI	3.4km North
Amberley Mount to Sullington Hill	SSSI	4.7km North West
Climping Beach	SSSI	6km South
Amberley Wildbrooks	SSSI	6km North
Duncton to Bignor Escarpment	SSSI	7km North West

There are 3 Local Wildlife Site (LWS) within 1km of the site (Table 4.1.2). LWS's are local wildlife sites designated for their importance for wildlife at a county level. Although not provided any statutory protection, they are given policy level protection under planning policy by Arun District Council and South Downs National Park Authority. No Local Nature Reserves were identified within 1km of the proposal. The Arun District Council Biodiversity Opportunity Area (BOA) is located approximately 100m to the south of the proposal site.

Table 4.1.2: Sites of Nature Conservation Importance within 2km of the Site.

LWS Name	Distance and Direction
Arun Valley, Watersfield to Arundel	100m South West
Rewell Wood Complex	650m West
Binsted Wood Complex	1.5km West

There are 13 ancient woodland sites that are located within 1km of the site boundary

4.1.1 Conclusion:

The proposed project boundary does not include or have in close proximity any statutory designated site for nature conservation and the closest sites are around 350m and the closest Local wildlife sites 100m. It is therefore considered there is no potential for direct impacts and little opportunity for indirect impacts to any statutory designated site arising from the proposal.

4.1.2 Recommendation:

Sensitive working practices will have to be adopted to protect the adjacent habitats from damage throughout the works.

4.2 Habitats

The phase 1 habitat survey identified a number of habitats on site, the results are summarised in the text below.



Figure 4.2.1- typical view of the existing container

4.2.1 Garden

The predominant habitat found on this site is garden type habitats, including amenity grass shrubs and flower beds. In the actual location of the works the habitat is partly amenity grass, with significant areas of bare ground and ruderal species. None of the habitats present have any particular intrinsic biodiversity value.

4.2.2 Individual trees

A number of trees are located within or adjacent to the site mostly non-native ornamental trees, but immediately adjacent to the proposed enlarged container is a group of Sycamore (*Acer pseudoplatanus*), that overhang the container.

Any value for other species such as bats and birds is addressed within the relevant sections.

Conclusion:

The site contains site of what would be considered valued habitats. Underneath the actual footprint of the works that will be affected by this proposal the habitats are of low intrinsic value and the impact of the loss on local habitats will be negligible.

Recommendation:

The minor loss of low value habitat is not considered to constitute an impact. Care should be taken to ensure that work activities do not encroach further into surrounding habitats through demarcation and constraining the working area

4.3 Individual Species / Group Assessment

4.3.1 Birds

During the site survey Great Tit (*Parus major*), Blue Tit (*Cyanistes caeruleus*), Chaffinch, (*Fringilla coelebs*), House Sparrow (*Passer domesticus*), Starling (*Sturnus vulgaris*) and Woodpigeon (*Columba palumbus*) were heard or observed.. Whilst all of these species are considered common and widespread, House Sparrow (*Passer domesticus*) and Starling (*Sturnus vulgaris*) are both species of conservation concern, red listed in BoCC5 (2021) due to significant declines.

The site survey identified the potential for nesting birds within a the garden habitats and individual which could support breeding bird species, which are all protected whilst nesting.

Conclusion:

The site has some value for breeding birds within a range of habitats including species of conservation concern. Activities affecting these habitats such as vegetation removal within the birds nesting season (March-August inclusive) could damage or destroy nests which would constitute an offence under the Wildlife and Countryside Act 1981. Therefore, sensitive working practises will be required. Due to the short duration, small scale and the limited direct encroachment into suitable habitats it is unlikely to constitute a significant impact.

Recommendation:

Any vegetation clearance should be undertaken outside of the bird nesting season (March-August inclusive) or checked prior to commencement by a suitably qualified and experienced ecologist.

4.3.3 Bats

A thorough internal inspection the trees on the site, looked for features that roosting bats could use such as, raised bark, fissures and holes, etc on the trees.

All the trees within the site and particularly were assessed for bat roost potential and on the whole were either considered to offer 'none' potential roost features and mostly too small to feasibly have features suitable for roosting bats. However, the Norfolk Centre building is considered to offer high roosting potential for bats, with numerous cracked, slipped and lifted tiles) and a bat dropping was found adhered to the fascia board on the gable end (North East) (see figure 4.3.1).



Figure 3.3.1- cracked tile capping and adhered bat dropping immediately below.

The site represents moderate quality foraging habitat for bats and the site and its immediate surroundings are considered to be of any significance as a foraging or commuting corridor for bats.

Conclusion:

None of the areas that will be affected by the proposed works represent a direct impact on roosting or foraging habitats for bats and therefore considered there will be limited impact on local bat populations. There are no activities planned within this proposal that risk significant impacts to this species and there is considered to be no wider population implications.

But any future works or repairs to the Norfolk Centre do risk harm to bats and suitable investigation and mitigation should be undertaken.

Recommendation:

There are no activities planned within this proposal that risk directly impacting bats. There is no need for further surveys in relation to this proposal.

But any future works or repairs to the Norfolk Centre do risk harm to bats and suitable investigation and mitigation should be undertaken before any work is undertaken.

4.3.4 Hazel Dormouse

No habitat exists for hazel dormouse on-site.

Conclusion:

The habitats affected by this proposal site have no value to Hazel Dormouse. There are no activities planned within this proposal that risk any impacts to this species.

Recommendation:

There are no activities planned within this proposal that risk directly impacting Hazel Dormouse or their habitats. There is no need for further surveys in relation to this proposal.

4.3.5 Hedgehog

The Western European Hedgehog (*Erinaceus europaeus*), a Section 41 species of principle concern under the NERC Act and is highly likely to occur within the site and surrounding countryside. They will use habitats in the gardens and the wider landholding for foraging, nesting and hibernation, and could potentially be hibernating in the leaf litter down the side of the existing container or underneath it.

Conclusion:

The site has some value for Hedgehogs within a range of habitats. Hedgehogs are vulnerable to being disturbed during hibernation and getting trapped in site excavations. Therefore, sensitive working practises will be required, however, there are no activities planned within this proposal that risk significant impacts to this species.

Recommendation:

If the container is to be moved during the hibernation period (October to March), any piles of leaves and vegetation should be checked by hand for hedgehogs before mechanical clearance.

Any excavations should be left covered overnight or provided with a means of escape (e.g. a scaffold plank at 90°) provided.

4.3.6 Reptiles

The site survey identified no opportunities for reptiles on site. But due to the proximity of the moat, Grass Snake could occasionally visit the working area of this proposal.

Conclusion:

The site has very limited potential for protected reptiles to be present.

Recommendation:

No suitable reptile habitat will be affected, it is considered there is no need for reptile surveys in relation to this proposal.

In the unlikely event a reptile is encountered work should stop immediately and a suitably qualified and experienced ecologist consulted and their advice followed before works recommence.

4.3.7 Amphibians

The site has very limited suitable terrestrial habitat for amphibians, there is no aquatic habitat that will be directly affected by the proposal, although the River Arun is not considered suitable

for amphibian species, the castle moat is potentially suitable for most amphibian species.. There are three ponds surveyed for the NE district level Great Crested Newt eDNA study within 1km of the site (and are absent) and the nearest licences issued is 3km to the south east.

It is possible that Common Frog (*Rana temporaria*), Palmate Newt (*Lissotriton helveticus*) and Smooth Newt (*Lissotriton vulgaris*) with the presence of the castle moat 40m to the East. Common Toad (*Bufo bufo*), a Section 41 species of principle concern under the NERC Act,

Conclusion:

It is considered unlikely that Great Crested Newt occur within or adjacent to the site, but there is potential habitat within the site boundary for Common Toad and other amphibian species. Without mitigation there is potential for impacts to Common Toad. Therefore, sensitive working practises will be required.

Recommendation:

The site has limited value for Common Toad within a range of habitats. But to avoid impacts any excavation required should not be left uncovered overnight and any old piles of rubble or logs should be shifted by hand in the first instance to allow any toads to escape. In the unlikely event a Great Crested Newt is discovered all work should stop and a suitably qualified and experienced ecologist consulted.

4.3.8 Other Mammals

The aquatic habitats adjacent to the site in the form of the River Arun and the castle moat have potential for aquatic mammals such as water vole or otter.

From personal experience the castle moat holds a population of Water Vole within 40m of the proposed works. But no suitable exists within the site boundary for Water Vole and other aquatic mammal species and no feasible mechanism whereby these species can be harmed,

Conclusion:

There are no activities planned within this proposal that risk any impacts to these species.

Recommendation:

There are no activities planned within this proposal that risk directly impacting mammals or their habitats. There is no need for further mammal surveys in relation to this proposal.

4.3.9 Invertebrates

On the whole the small scope and scale of the works are unlikely to significantly affect notable invertebrate species and no specific mitigation is considered likely to reduce impacts.

4.3.9.1 Fish

Records indicate that European Eel and Sea Trout have been recorded in the River Arun. Although they are of significant conservation interest, there is no foreseeable mechanism whereby the construction of this proposal should affect these species. However, leaks of fluids such as fuels and lubricants from plant could affect these species and other habitats.

Recommendation:

All precautions to reduce potential for pollution should be undertake including;

- All fuels and lubricants should be stored in bunded compounds,
- fuelling of all plant should be undertaken in bunded areas
- All plant and vehicle to have spill kits available and staff trained in their use.

- Biodegradable hydraulic fluid to be used

4.3.10 Schedule 9 Plants

Plants designated under schedule 9 of the Wildlife and Countryside Act 1981, which includes Japanese Knotweed (*Reynoutria japonica*), are non-native invasive species that have been determined to be a risk to native flora. SxBRC records indicate 6 schedule 9 plants are present within 1km of the proposal. During the field survey no non-native invasive species including those on schedule 9 were observed.

Recommendation: It is illegal to plant or cause a Schedule 9 plant to grow, should any be discovered on site appropriate mitigation measures should be employed. All plant and equipment should be checked and cleaned before moving to another site to reduce potential for spread.

5 Opportunities for Biodiversity Enhancement

Based on the ecological features identified within the site boundary and zone of influence, records of species and habitats within the area, national and local planning policies in relation to protected species and habitats; the following opportunities have been identified for biodiversity enhancement:

- Erect a bat roosting box on a tree adjacent to the site. For longevity a woodcrete or similar box is recommended.

5.1 Biodiversity Net Gain

This proposal does not trigger mandatory Biodiversity Net Gain, due to the extent of the proposed changes at around 8m² being lower than the de-minimis exemption of 25m². It is considered that any change in biodiversity value of the site will be less than significant.

6 Overall Conclusions

It is concluded due to the scope and scale of the proposal that the projects zone of influence has limited potential for harm to biodiversity, but there are a number of sensitivities that will have to be considered.

Where there is potential for impacts to biodiversity interests appropriate mitigation measures have been proposed.

6.1.1 Further surveys and mitigation required:

Protected Habitats / Species	Additional Surveys or mitigation measures required
Designated sites and habitats.	• Sensitive working practices will have to be adopted to protect the adjacent habitats from damage throughout the works
Birds	• Should any minor vegetation clearance be required they should be undertaken outside of the bird nesting season (March-August inclusive) or checked prior to commencement by a suitably qualified and experienced ecologist
Badgers	Any excavations should be left covered overnight or a means of escape (e.g. a scaffold plank at 90°) provided

Bats	• There are no activities planned within this proposal that risk directly impacting bats. There is no need for further surveys in relation to this proposal. • But any future works or repairs to the Norfolk Centre do risk harm to bats and suitable investigation and mitigation should be undertaken before any work is undertaken.
Hazel Dormouse	• There is no need for further surveys in relation to this proposal.
Hedgehog	• If the container is to be moved during the hibernation period (October to March), any piles of leaves and vegetation should be checked by hand for hedgehogs before mechanical clearance. • Any excavations should be left covered overnight or provided with a means of escape (e.g. a scaffold plank at 90°) provided
Reptiles	• No suitable reptile habitat will be affected, it is considered there is no need for reptile surveys in relation to this proposal. • In the unlikely event a reptile is encountered work should stop immediately and a suitably qualified and experienced ecologist consulted and their advice followed before works re-commence.
Amphibians	• Excavation should not be left uncovered overnight and any old piles of rubble or logs should be shifted by hand in the first instance to allow any toads to escape. • In the unlikely event a Great Crested Newt is discovered all work should stop and a suitably qualified and experienced ecologist consulted.
Other mammals	• There are no activities planned within this proposal that risk directly impacting mammals or their habitats. • There is no need for further mammal surveys in relation to this proposal.
Fish aquatic habitats	All precautions to reduce potential for pollution should be undertake including; • All fuels and lubricants should be stored in bunded compounds, • fuelling of all plant should be undertaken in bunded areas • All plant and vehicle to have spill kits available and staff trained in their use. • Biodegradable hydraulic fluid to be used
Flora / Schedule 9 Plants	• It is illegal to plant or cause a Schedule 9 plant to grow, should any be discovered on site appropriate mitigation measures should be employed • All plant and equipment should be checked and cleaned before moving to another site to reduce potential for spread.

7 Caveats and Limitations

This Preliminary Ecological Appraisal represents a reasonable level of effort to identify potential biodiversity constraints present on the site. Access to the entire area subject to the client's instructions was surveyed and it is not considered that there were any limitations to the survey. It is however only a snapshot of the site on the day of the survey; biodiversity interest is by nature cryptic and highly mobile. Therefore, this advice can only be considered valid for one year from the date of the survey. Should either the proposal or the timing change, an ecological consultant should be contacted for a revised opinion on the biodiversity risks represented by this proposal.

8 References

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