



Bat Emergence Survey Report

Site: Upper Studley Farm, Swindon Road, Royal Wootton Bassett, Wiltshire, SN4 8ET

Client: Kim Rivers

Date: July 2026



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Site assessments / surveys (where required) have been restricted to a level of detail required to achieve the stated objectives of the work.

Due to the temporal nature of ecology, the findings of this report should not be relied upon if a significant amount of time has passed, as defined by the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines.

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1.0 Summary

- 1.1** This report presents the results of a Bat Emergence Survey (BES) undertaken at Upper Studley Farm, Swindon Road, Royal Wootton Bassett, Wiltshire, SN4 8ET ('the Site'). The proposals are for the rebuild of the existing structure and the repurposing of the building as a 2-bed short term holiday let ('the Proposed Development').
- 1.2** The Site comprises a dilapidated building surrounded by areas of modified grassland and hardstanding. The Site is bordered by farm buildings and arable land in all directions. The wider landscape is predominantly rural, with arable land alongside small pockets of woodland residential development. Junction 16 of the M4 lies approximately 0.42 km north of the Site.
- 1.3** Building B1 was identified within the Site during the Preliminary Ecological Appraisal (PEA; Crossland Ecology Ltd., 2026). as having low Bat Roost Suitability (BRS), with a further survey of the building recommended.
- 1.4** In accordance with the Bat Conservation Trust (BCT) bat survey guidelines (Collins, 2023), a single BES of building B1 was undertaken on 01.07.26. No bats were recorded emerging from the building. As such it was concluded that bat roosts are likely absent from the buildings.
- 1.5** Based on the results of the BES, no further survey or mitigation in respect of roosting bats is considered necessary. Recommendations have been provided relating to good practice and enhancement measures to inform the Proposed Development design and implementation, which would result in a positive residual effect on bats.

2.0 Introduction

2.1 Crossland Ecology Ltd. was commissioned by Kim Rivers to undertake a Bat Emergence Survey (BES) of the building at Upper Studley Farm, Swindon Road (the 'Site'). This report presents the findings and recommendations of this survey.

Legislation

2.2 All bat species are legally protected under Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended), making them European Protected Species (EPS). Taken together, it is illegal to:

- Deliberately kill, injure or capture any wild animal of EPS;
- Deliberately disturb wild animals of any EPS in such a way to be likely to significantly affect:
 - The ability of that species to survive, breed, rear or nurture their young;
 - or
 - The local distribution of that species.
- Recklessly disturb an EPS or obstruct access to their place of rest;
- Damage or destroy breeding sites or resting places of such animals;
- Deliberately take or destroy the eggs of such an animal;
- Possess or transport any part of an EPS, unless acquired legally; and/or
- Sell, barter or exchange any part of an EPS.

Site Background

2.3 A Preliminary Ecological Appraisal (PEA) was undertaken of the Site in April 2026 (Crossland Ecology Ltd., 2026) which identified building B1 (Figure 1, Appendix 1) within the Site assessed as having low Bat Roosting Suitability (BRS). A further survey of this building was therefore recommended).

2.4 In accordance with the Bat Conservation Trust (BCT) survey guidelines (Collins, 2023), one BES of the building was undertaken.

3.0 **Methods**

3.1 This report has been prepared with reference to British Standards Institution (BSI) BS 42020:2013 ‘Biodiversity – code of practice for planning and development’ (BSI, 2013) and The Chartered Institute of Ecology and Environmental Management’s (CIEEM) and Technical Guidance Series ‘Ecological Report Writing’ (CIEEM, 2017) and Code of Professional Conduct (CIEEM, 2025).

Dusk Emergence Survey

3.2 The BES of building B1 was undertaken on 01.07.2026 by Karen Peacock and Matt Craggs, in accordance with best practice guidance (Collins, 2023).

3.3 The survey was undertaken during suitable weather conditions and within the appropriate timescales (i.e. commencing 15 minutes before sunset and finishing 1.5 – 2 hours after sunset in accordance with the BCT guidelines [Collins, 2023]), see Table 1.

Table 1: Survey Details

Date	Sunset	Start time	Finish time	Weather
06.08.25	21:27	21:12	22:57	Start: temp - 17°C, cloud cover 10%, wind - 3, dry End: temp -16°C, cloud cover 20%, wind - 0, dry

3.4 The BES involved the surveyors positioning themselves at appropriate vantage points around the building to ensure all Potential Roost Features (PRFs) and access points were visible and recorded. The surveyors watched for and recorded any bat activity, in addition to recording the survey using two EMT2 bat detectors and Night Vision Aids (NVAs); comprising Infra-red (IR) cameras with IR torches. The survey positions were located at the eastern and western aspects of building B1 enabling coverage of all PRFs throughout the survey (Figure 1, Appendix 1).

3.5 Following completion of the survey, the NVA footage was reviewed as soon as possible within the following days.

Constraints

3.6 The bat surveys were completed with the assistance of bat detectors. Surveys using bat detectors have an advantage over other methodologies (such as radio tracking or trapping) in that they are 'non-intrusive' and will therefore not have an adverse effect on the conservation status or welfare of bats. However, all survey techniques for bats are subject to bias and bat detector surveys may under record species with weak echolocation calls, such as brown long-eared bats *Plecotus auritus*.

3.7 Bats from the *Myotis* genus can be difficult to identify to species from call structure alone (Russ, 2012).

3.8 The use of NVAs reduces the constraints identified above, and in combination with the professional experience of the surveyors, the robustness of the survey is not considered to be significantly impaired or limited.

4.0 Results, Impact Assessment and Recommendations

Dusk Emergence Survey Results

- 4.1** No bats were seen or recorded emerging from the building during the BES. Bat activity recorded during the survey comprised only common pipistrelle *Pipistrellus pipistrellus* and noctule *Nyctalus noctule*, with very low levels of foraging activity recorded (see Appendix 2 for survey sheets).
- 4.2** Bat roosts are therefore considered likely absent from building B1.

Impact Assessment

- 4.3** The Proposed Development includes rebuild the existing structure and repurposing of the building as a 2-bed short term holiday.
- 4.4** Based on the survey findings, with the likely absence of a bat roosts within the building surveyed, no adverse effects on roosting bats are anticipated as a result of the Proposed Development.

Recommendations

- 4.5** Whilst the BES did not detect bat roosts within the building, recommendations are provided below in respect of good practice measures and enhancement opportunities to inform the Proposed Development design and implementation in respect of any local bat populations.
- 4.6** If any new external lighting is necessary, this should avoid directly lighting retained and adjacent vegetation. A sensitive lighting strategy should be employed throughout both the construction and occupation phases of the development to reduce indirect impacts on local bat populations.
- 4.7** In general, it is recommended that site lighting around key features that are likely to be used by roosting, foraging or commuting bats is avoided. If lighting is necessary, this should avoid directly lighting vegetation likely to be utilised by bats, seeking to maintain lux levels along such features (e.g. tree, scrub and hedgerow/boundary/adjacent habitats) that are in the region of natural nocturnal light levels (generally 0.25 lux or below, up to a maximum of 1 lux). The following mitigation strategies have been taken from the Institution of Lighting Professionals and Bat Conservation Trust's Guidance Note 08/23 Bats and Artificial Lighting at Night (2023) (and other referenced sources) should be considered when choosing luminaires and their potential impacts:
- In general, light sources should not emit ultraviolet light to avoid attracting insects and thus potentially reducing numbers in adjacent areas, which bats may use for foraging. Metal halide and fluorescent sources should not be used.
 - LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.

- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light components. Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls of similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion-sensors and set to as short as possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged; they should only be considered in specific cases.
- Only if all other options have been explored, then accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only where it is needed.

4.8 Plans should seek to avoid any significant increase in lux levels along retained vegetation features, aiming to maintain levels along sensitive habitat features in the region of 0.1–0.25 lux (equivalent to a typical cloudy or moonlit natural nocturnal light levels), and not exceeding a maximum of 1 lux (equivalent to a fully moonlit night) at 2m above ground level, only where this is strictly necessary. Buffering of retained vegetation (e.g. along the Site boundaries) as generally recommended will aid to meet this aim, ensuring that functional connectivity is maintained. At detailed design stage, an assessment of proposed lighting designs undertaken by a suitably qualified ecologist may be necessary. This will require the provision of lighting contour plans, illustrating levels of light spill onto sensitive habitats.

4.9 The Site could be enhanced for roosting bats through the inclusion of bat boxes positioned on/integrated into the new buildings or installed on suitable retained trees or within the rebuilt structure. Examples are shown in Figures 1 - 3 below.

Figure 1: Schwegler 1FD bat box erected on a tree



Figure 2: Habibat bat box (integrated)



Figure 3: Woodstone ® Beaumaris Bat Box Midi for installation on buildings



4.10 Enhancing the Site through additional native planting within the new residential gardens is recommended, where possible. New planting should be of native fruit-producing and nectar-rich species as this is more favourable for invertebrates (bats prey). This approach would serve to enhance the Site for bats by improving connectivity and offering an additional foraging resource. Further enhancement could be delivered through the planting of lower flora known to be favoured by their

invertebrate prey within any open space landscaping, such as night-flowering and nectar producing species attractive to moths (Appendix 3).

- 4.11** The implementation of the above recommendations are considered likely to result in a **positive** residual effect for roosting bats.

5.0 Conclusions

- 5.1** The BES of building B1 confirmed the likely absence of roosting bats, with only low levels of common pipistrelle and noctule recorded foraging and passing during the survey; no bats were seen or recorded emerging from building B1.
- 5.2** No adverse impacts on roosting bats are anticipated as a result of the Proposed Development and no further survey or mitigation is considered necessary.
- 5.3** Recommendations have been provided relating to good practice and enhancement measures to inform the Proposed Development design and implementation in respect of any local bat populations, which would result in a positive residual effect on roosting bats.

6.0 **References**

British Standards Institution (2013) *BS 42020: 2013 Biodiversity – Code of Practice for Planning and Development*. British Standards Institution: London.

CIEEM (2017) *Guidelines on Ecological Report Writing 2nd Edition*. Chartered Institute of Ecology and Environmental Management: Winchester.

CIEEM (2025) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management: Winchester.

Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th Edition*. The Bat Conservation Trust: London.

Crossland Ecology Ltd. (2026) *Preliminary Ecological Appraisal. Upper Studley Farm, Swindon Road, Royal Wootton Bassett, Wiltshire, SN4 8ET*. Crossland Ecology Ltd: Essex.

Institution of Lighting Professionals (2023) *Guidance Note 08/23: Bats and Artificial Lighting at Night*. Institution of Lighting Professionals: Warwickshire.

Russ, J. (2012) *British Bat Calls: A Guide to Species Identification*. Pelagic Publishing: London.

Stone, E.L., Jones, G., Harris, S. (2012) *Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats*. *Glob Change Biol*. 18: 2458-2465.

Appendix 1: Emergence Survey Plan



Appendix 2: Bat Survey Sheets and Photographs



Dusk Emergence Survey Sheet

SITE NAME:	Upper Studley Farm	DATE:	01.07.26
SURVEYOR:	MCr	SUNSET (Time):	21:27
DETECTOR:	6	LIGHTING:	N
LOCATION (W3W):	///punt.laser.hurry	TREE/BUILDING No:	B1
EMERGENCE? (Y/N)	N		

	START	FINISH
TIME:	21:12	22:57
TEMPERATURE (°C):	18	14
CLOUD COVER (%)	10	10
WIND (BEAUFORT):	3	0
PRECIPITATION:	N	N

TIME	SPECIES	No. BATS	HEARD (H) / SEEN (S)	DIRECTION	BEHAVIOUR: Foraging (F), Commuting (C), Emergence (E), Re-entry (E), Miscellaneous Pass (P)
22:16	C.pip	1	H		
22:21	C.pip	1	H		
22:42	Noct	1	H		

Dusk Emergence Survey Sheet

SITE NAME:	Upper Studley Farm	DATE:	01/07/26
SURVEYOR:	Karen Peacock	SUNSET (Time):	21:27
KIT:	NFW+EMT2+TORCH	LIGHTING:	Security light
LOCATION (W3W):	///hooked.sushi.goat	TREE/BUILDING No:	B1
EMERGENCE? (Y/N)			

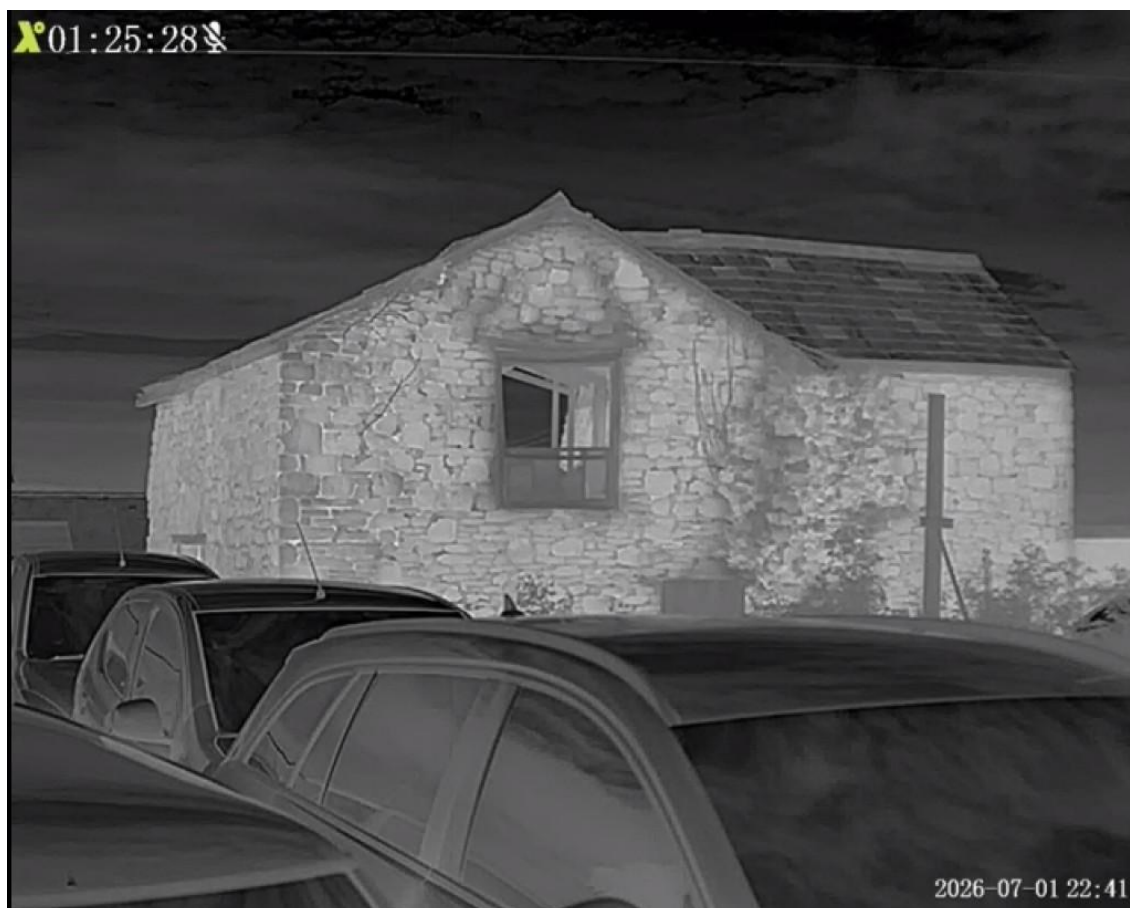
	START	FINISH
TIME:	21:12	22:57
TEMPERATURE (°C):	17	16
CLOUD COVER (%)	10	20
WIND (BEAUFORT):	3	4
PRECIPITATION:	0	0

TIME	SPECIES	No. BATS	HEARD (H) / SEEN (S)	DIRECTION	BEHAVIOUR: Foraging (F), Commuting (C), Emergence (E), Re-entry (E), Miscellaneous Pass (P)
21:52	Pip pip	1	H		P
21:58	Noc	1	H		P
22:00	Noc	1	H		P
22:06	Pip pip	1	S	N	P
22:08	Pip pip	1	S	Circling	F
22:11	Pip pip	1	S		F
22:20	Pip pip	2	S		F
22:22	Noc	1	S	N	P
22:24	Pip pip	1	S	N	P
22:29	Pip pip	1	H		P
22:37	Pip pip	1	H		F
22:42	Noc	1	H		P
22:56	Pip pip	1	H		P

Photograph 1: - Western aspect of building B1 - IR image at start of survey – 01.07.26



Photograph 2: - Western aspect of building B1 - IR image at end of survey – 01.07.26



Photograph 4: Eastern aspect of building B1 - IR image at start of survey – 01.07.26



Photograph 4: Eastern aspect of building B1 - IR image at end of survey – 01.07.26



Appendix 3: Species of Known Benefit to Wildlife (Bats and Invertebrates)

The following table is reproduced from Gunnell, K., Grant, G. and Williams, C. (2012). Landscape and Urban Design for Bats and Biodiversity, Bat Conservation Trust. This table contains a suggested species list of plants that can provide benefit for bats either by providing a food source for insects and/ or roost potential. The plants listed are predominately native to Britain. The small group of non-native plants included for their documented value for wildlife. The list has been checked by the author against Natural England's list of invasive non-native plants.

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain gardens	Hedge/ trees	Beds/ borders
<i>Acer campestre</i>	Field maple	N	T/S	C	Any	Sun/ shade				Y	
<i>Acer platanoides</i>	Norway maple		T	S	Well drained/ alkaline	Sun/ shade				Y	
<i>Acer saccharum</i>	Sugar maple		T	S	Any	Sun/ shade				Y	
<i>Achillea millefolium</i>	Yarrow	N	HP	C,F	Well drained	Sun				Y	
<i>Ajuga reptans</i>	Bugle	N	HP	C,F	Any	Sun/ shade	Y		Y		
<i>Anthyllis vulneraria</i>	Kidney vetch	N	HP	F	Well drained	Sun	Y				
<i>Aubrieta deltoidea</i>	Aubrieta		H	F	Well drained	Sun/shade		Y			
<i>Betula pendula</i>	Sliver birch	N	T	C	Sandy/ acid	Sun				Y	
<i>Cardamine pratensis</i>	Cuckoo-flower	N	HP	F	Moist	Sun/ shade			Y		Y
<i>Carpinus betulus</i>	Hornbeam	N	T	C	Clay	Sun				Y	
<i>Centaurea nigra</i>	Common knapweed	N	HP	C,F	Dry, not acid	Sun	Y				Y
<i>Centranthus ruber</i>	Red valerian		HP	F	Well drained	Sun	Y				Y
<i>Clematis vitalba</i>	Old man's Beard	N	C	F	well drained/ alkaline	Sun				Y	
<i>Corylus avellana</i>	Hazel	N	S	C	Any dry	Sun/ shade		Y		Y	
<i>Crataegus monogyna</i>	Hawthorn	N	S	S,C	Any	Sun/shade				Y	
<i>Daucus carota</i>	Wild carrot	N	Bi	S,C,F	Any	Sun	Y				Y
<i>Dianthus spp.</i>	Pinks	N	A-Bi	F	Well drained	Sun	Y	Y			Y
<i>Digitalis purpurea</i>	Foxglove	N	Bi	C	Well drained	Shade/ partial shade				Y	Y
<i>Erica cinerea</i>	Bell heather	N	S	F	Sandy	Full sun					Y

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain gardens	Hedge/trees	Beds/borders
<i>Ersimum cherira</i>	Wallflower		Bi-P	F	Well drained	Sun		Y			Y
<i>Eupatorium</i>	Hemp agrimony	N	H	F	Moist	Sun/ shade			Y		Y
<i>Fagus sylvatica</i>	Beech	N	T	C, R	Well drained alkaline	Sun/ shade				Y	
<i>Foeniculum vulgare</i>	Fennel		H	F	Well drained	Sun					Y
<i>Fraxinus excelsior</i>	Common Ash	N	T	C, R	Any	Sun/ shade				Y	
<i>Hebe spp.</i>	Hebe species		S	F	Well drained	Sun /shade				Y	Y
<i>Hedera Helix</i>	Ivy	N	C	F,C	Any	Sun/ shade		Y	Y	Y	Y
<i>Hesperis matronalis</i>	Sweet Rocket		H	F	Well drained/ dry	Sun/ shade					Y
<i>Hyacinthoides non-scripta</i>	Bluebell	N	B	F	Loam	Shade/ partial shade		Y		Y	Y
<i>Ilex aquifolium</i>	Holly	N	T	C	Any	Sun/ shade				Y	
<i>Jasmine officinale</i>	Common jasmine		C	F	Well drained	Sun		Y			Y
<i>Lavandula spp.</i>	Lavender species		S	F	Well drained / sandy	Sun		Y			Y
<i>Linaria vulgaris</i>	Toadflax	N	HP	C	Well drained/ alkaline	Sun	Y				Y
<i>Lonicera periclymenum</i>	Honeysuckle	N	C	F	Well drained	Sun		Y		Y	
<i>Lotus corniculatus</i>	Bird's foot trefoil	N	HP	F	Well drained/ dry	Sun	Y				Y
<i>Lunaria annua</i>	Honesty		Bi	F	Any	Sun/ partial shade	Y				Y
<i>Malus spp.</i>	Apple		T	C	Any	Sun				Y	Y
<i>Matthiola longipetala</i>	Night - scented stock		A	F	Well drained/ moist				Y		Y
<i>Myosotis spp.</i>	Forget me not sp.	N	A	F	Any	Sun	Y	Y			Y
<i>Nicotiana glauca</i>	Ornamental tobacco		A	F	Well drained moist	Sun / partial shade			Y		Y

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain gardens	Hedge/trees	Beds/borders
<i>Oenothera spp.</i>	Evening primrose		Bi	F	Well drained	Sun	Y				Y
<i>Origanum vulgare</i>	Marjoram	N	HP	F	Well drained / dry	Sun				Y	
<i>Populus alba</i>	White poplar	N	T	C	Clay loam	Sun				Y	
<i>Primula veris</i>	Cowslip	N	HP	F	Well drained/ moist	Sun/ partial shade	Y				Y
<i>Primula vulgaris</i>	Primrose	N	HP	F	Moist	Partial shade	Y	Y		Y	Y
<i>Prunus avium</i>	Wild cherry	N	T	C	Any	Sun				Y	Y
<i>Prunus domestica</i>	Plum		T	C	Well drained/ moist	Sun				Y	Y
<i>Prunus spinosa</i>	Blackthorn	N	S	C	Any	Sun/ partial shade				Y	
<i>Quercus petraea</i>	Sessile oak	N	T	C,R	Sandy loam	Sun/ shade				Y	
<i>Quercus robur</i>	Common oak	N	T	R	Clay Loam	Sun/ shade				Y	
<i>Rosa canina</i>	Dog rose	N	S	C	Any	Sun			Y	Y	Y
<i>Salix spp.</i>	Willow species	N	S	S,C	Moist	Sun/ shade			Y	Y	
<i>Sambucus nigra</i>	Elder	N	T	C	Clay loam	Sun				Y	
<i>Saponaria officinalis</i>	Soapwort	N	HP	F	Any	Sun					Y
<i>Saxifraga oppositifolia</i>	Saxifrage	N	HP	C	Well drained	Sun	Y	Y			Y
<i>Scabiosa columbaria</i>	small scabious	N	HP	F	Well drained/ alkaline	Sun	Y				Y
<i>Sedum spectabile</i>	Ice plant		HP	F	Well drained/ dry	Sun	Y				Y
<i>Silene dioica</i>	Red campion	N	HP	F	Any	Shade/ partial shade		Y	Y	Y	Y
<i>Sorbus aucuparia</i>	Rowan	N	T	C	Well drained	Sun				Y	
<i>Stachys lanata</i>	Lamb's ear		HP	F	Well drained/ dry	Sun					Y
<i>Symphotrichum spp.</i>	Michaelmas daisies		HP	F	Any	Sun					Y

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive green roofs	Living walls	Rain gardens	Hedge/trees	Beds/borders
<i>Tages patula</i>	French marigold		A	F	Well drained	Sun					Y
<i>Thymus serpyllum</i>	Creeping thyme	N	HP/S	F	Well drained/dry	Sun	Y	Y			Y
<i>Tilia x europaea</i>	Common lime		T	C	Any	Sun/ shade				Y	
<i>Trifolium spp.</i>	Clover species	N	H	F	Any	Sun	Y				Y
<i>Valerina spp.</i>	Valerian species	N	HP	F	Moist	Sun/ partial shade			Y		Y
<i>Verbascum spp.</i>	Mulleins	N	Bi, HP	C	Well drained	Sun					Y
<i>Verbena bonariensis</i>	Verbena		HP	F	Well drained/moist	Sun					Y
<i>Viburnum lantana</i>	Wayfaring tree	N	S	C	Any	Sun/ shade				Y	Y
<i>Viburnum opulus</i>	Guelder rose	N	S	C	Moist	Sun/ shade			Y	Y	
<i>Viola tricolor</i>	Pansy	N	A	F	Well drained/moist	Sun/ partial shade	Y	Y			Y

Legend

Type		Benefit	
HP	Herbaceous perennial	C	Moth caterpillar food plant
Bi	Biennial	S	Sap sucking insects (e.g., whiteflies)
BiP	Biennial perennial	F	Flowers attract adult moths
T	Tree	E	Good roost potential
S	Shrub		
H	Herb		
A	Annual		
B	Bulb		
C	Creeper/ climber		