

Figure 2 - Annotated Photographs



Site access from Freeman's Way



Looking north across field TN1



Site's north-west corner and hardstanding area TN5 and TN15



Looking east along Site's northern hedgeline TN7



Looking south along Site's eastern boundary TN9



Looking east across Sites eastern boundary TN9



Site's eastern boundary TN3



Looking west at Site's southern boundary TN6



Looking east along Sites southern boundary TN6 and TN11



Site's southern boundary TN6



Looking north along Site's southern boundary TN6



Site's western boundary TN4

Appendix 1 - Technical Guidance on Artificial Lighting and Bats

From: Institute of Lighting Professionals (ILP) and Bat Conservation Trust (BCT). 2018. *Guidance Note 8: Bats and Artificial Lighting*.

Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires.

- All luminaires should lack UV elements when manufactured. Metal halide, 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 component.
- 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 where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition, and their use should only be as directed by the lighting professional.
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light.
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1 minute) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.



Sharing the best in Gardening



RHS PERFECT FOR POLLINATORS WILDFLOWER LIST

SHORT GRASS, UP TO 15CMS

<i>Ajuga reptans</i> bugle	H
<i>Bellis perennis</i> daisy	H
<i>Campanula rotundifolia</i> common harebell	H
<i>Hippocrepis comosa</i> horseshoe vetch	H
<i>Lotus corniculatus</i> bird's foot trefoil	H
<i>Potentilla anserina</i> silverweed	H
<i>Potentilla erecta</i> tormentil	H
<i>Potentilla reptans</i> creeping cinquefoil	H
<i>Primula veris</i> common cowslip	H
<i>Prunella vulgaris</i> selfheal	H
<i>Ranunculus repens</i> creeping buttercup	H
<i>Sanguisorba minor</i> salad burnet	H
<i>Taraxacum officinale</i> dandelion	H
<i>Thymus polytrichus</i> wild thyme	H
<i>Thymus pulegioides</i> large thyme	H
<i>Trifolium pratense</i> red clover	H
<i>Trifolium repens</i> white clover	H
<i>Veronica chamaedrys</i> germander speedwell	H

HEDGES, SHRUB BORDERS AND WOODLAND EDGE

<i>Acer campestre</i> field maple	S or T
<i>Alliaria petiolata</i> garlic mustard	Bi
<i>Allium ursinum</i> ramsons	B
<i>Aquilegia vulgaris</i> common columbine	H
<i>Ballota nigra</i> black horehound	H
<i>Berberis vulgaris</i> barberry	S
<i>Bryonia dioica</i> white bryony	H/C
<i>Buxus sempervirens</i> common box	S

HEDGES, SHRUB BORDERS AND WOODLAND EDGE (cont.)

<i>Campanula trachelium</i> nettle-leaved bellflower	H
<i>Clematis vitalba</i> old man's beard/traveller's joy	C
<i>Clinopodium vulgare</i> wild basil	H
<i>Cornus sanguinea</i> common dogwood	S
<i>Crataegus monogyna</i> common hawthorn	S or T
<i>Cytisus scoparius</i> common broom	S
<i>Digitalis purpurea</i> common foxglove	Bi
<i>Euonymus europaeus</i> spindle	S
<i>Fragaria vesca</i> wild strawberry	H
<i>Frangula alnus</i> alder buckthorn	S
<i>Galium mollugo</i> hedge bedstraw	H
<i>Galium odoratum</i> sweet woodruff	H
<i>Galium verum</i> lady's bedstraw	H
<i>Geranium robertianum</i> herb robert	A/Bi
<i>Geum urbanum</i> wood avens	H
<i>Hedera helix</i> common ivy	C
<i>Helleborus foetidus</i> stinking hellebore	H
<i>Hyacinthoides non-scripta</i> bluebell	B
<i>Ilex aquifolium</i> common holly	T
<i>Lamium album</i> white deadnettle	H
<i>Lamium galeobdolon</i> yellow archangel	H
<i>Ligustrum vulgare</i> wild privet	S
<i>Lonicera periclymenum</i> common honeysuckle	C
<i>Malus sylvestris</i> crab apple	T
<i>Malva sylvestris</i> common mallow	H
<i>Myosotis sylvatica</i> wood forget-me-not	H
<i>Primula vulgaris</i> primrose	H
<i>Prunus avium</i> wild cherry/gean	T
<i>Prunus padus</i> bird cherry	T
<i>Prunus spinosa</i> blackthorn/sloe	S

Natural England states: You can legally collect small quantities of wildflower seed for your own use, but you must get permission from the land's owner, tenant or other authority, as necessary. Although seed collecting is allowed, you should not dig up native plants – many rare species are protected by law. You can collect seed of even rare plants, but cannot sell/trade seed or progeny.

KEY

T = tree; S = shrub; C = climber; B = bulbs and corms; A = annual; Bi = biennial; H = herbaceous perennial

RHS PERFECT FOR POLLINATORS WILDFLOWER LIST

HEDGES, SHRUB BORDERS AND WOODLAND EDGE (cont.)

Ranunculus ficaria <i>lesser celandine</i>	H
Rhamnus catharticus <i>Purging buckthorn</i>	S
Rosa canina <i>Dog rose</i>	S
Rosa rubiginosa <i>sweet briar</i>	S
Rubus fruticosus <i>blackberry</i>	S
Salix atrocinerea <i>grey willow</i>	S - male forms best
Salix caprea <i>goat willow</i>	S - male forms best
Sanicula europaea <i>sanicle</i>	H
Sedum telephium <i>orpine</i>	H
Silene dioica <i>red campion</i>	H
Silene latifolia subsp. <i>alba</i> <i>white campion</i>	H
Smyrniolus olusatrum <i>alexanders</i>	Bi
Sorbus aria <i>common whitebeam</i>	T
Sorbus aucuparia <i>rowan/mountain ash</i>	T
Sorbus torminalis <i>wild service tree</i>	T
Stachys officinalis <i>betony</i>	H
Stellaria holostea <i>greater stitchwort</i>	H
Symphytum officinale <i>common comfrey</i>	H
Teucrium scorodonia <i>wood sage</i>	H
Tilia cordata <i>small-leaved lime</i>	T
Viburnum lantana <i>common wayfaring tree</i>	S
Viburnum opulus <i>guelder rose</i>	S
Vicia cracca <i>common tufted vetch</i>	H
Vicia sativa <i>common vetch</i>	H

DISTURBED GROUND

Agrostemma githago <i>corncockle</i>	A
Anchusa arvensis <i>bugloss</i>	A
Anthemis arvensis <i>corn chamomile</i>	A
Anthemis cotula <i>stinking chamomile</i>	A
Centaurea cyanus <i>cornflower</i>	A
Cichorium intybus <i>chicory</i>	H
Dipsacus fullonum <i>common teasel</i>	Bi
Echium vulgare <i>viper's bugloss</i>	Bi
Glebionis segetum <i>corn marigold</i>	A
Iberis amara <i>wild candytuft</i>	A
Lamium amplexicaule <i>Henbit deadnettle</i>	A
Matricaria recutita <i>scented mayweed</i>	A

DISTURBED GROUND (cont.)

Mentha arvensis <i>corn mint</i>	H
Myosotis arvensis <i>field forget-me-not</i>	A/H
Myosotis arvensis <i>Common forget-me-not</i>	A
Onopordum acanthium <i>cotton thistle</i>	Bi
Papaver dubium <i>long-headed poppy</i>	A
Papaver rhoeas <i>common poppy</i>	A
Sinapis arvensis <i>charlock</i>	A
Sonchus arvensis <i>perennial sowthistle</i>	H
Tussilago farfara <i>coltsfoot</i>	H
Verbascum thapsus <i>great mullein</i>	Bi

FLOWER BEDS

Calluna vulgaris <i>heather / ling</i>	S
Erica ciliaris <i>Dorset heath</i>	S
Erica cinerea <i>bell heather</i>	S
Erica tetralix <i>cross-leaved heath</i>	S

LONG GRASS, ABOVE 50CMS

Arctium minus <i>lesser burdock</i>	Bi
Carduus crispus <i>welted thistle</i>	Bi
Carduus nutans <i>musk thistle</i>	Bi
Chamaenerion angustifolium <i>rosebay willowherb</i>	H
Cirsium arvense <i>creeping thistle</i>	H
Cirsium vulgare <i>spear thistle</i>	Bi
Conopodium majus <i>pignut</i>	H
Cynoglossum officinale <i>hound's tongue</i>	H
Daucus carota <i>wild carrot</i>	Bi
Geranium pratense <i>meadow cranesbill</i>	H
Heracleum sphondylium <i>hogweed</i>	Bi
Hypericum perforatum <i>perforate St John's wort</i>	H
Knautia arvensis <i>field scabious</i>	H
Lathyrus pratensis <i>meadow vetchling</i>	H
Pastinaca sativa <i>wild parsnip</i>	Bi
Succisa pratensis <i>devil's bit scabious</i>	H
Tanacetum vulgare <i>tansy</i>	H

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RHS PERFECT FOR POLLINATORS WILDFLOWER LIST

LONG GRASS, ABOVE 50CMS (cont.)

Thalictrum flavum <i>meadow rue</i>	H
Tragopogon pratensis <i>goat's beard</i>	Bi
Verbascum nigrum <i>dark mullein</i>	Bi/H

MEDIUM HEIGHT GRASS, UP TO 50CMS

Achillea millefolium <i>common yarrow</i>	H
Achillea ptarmica <i>sneezewort</i>	H
Agrimonia eupatoria <i>agrimony</i>	H
Anthyllis vulneraria <i>kidney vetch</i>	H
Armeria maritima <i>thrift/sea pink</i>	H
Blackstonia perfoliata <i>yellowwort</i>	A
Campanula glomerata <i>clustered bellflower</i>	H
Centaurea nigra <i>common knapweed/hardheads</i>	H
Centaurea scabiosa <i>greater knapweed</i>	H
Centaurea erythraea <i>common centaury</i>	Bi
Echium vulgare <i>viper's bugloss</i>	Bi
Erigeron acris <i>blue fleabane</i>	A/H
Filipendula vulgaris <i>dropwort</i>	H
Helianthemum nummularium <i>common rockrose</i>	H
Hypochaeris radicata <i>cat's ear</i>	H
Inula conyzae <i>ploughman's spikenard</i>	H
Leontodon autumnalis <i>autumn hawkbit</i>	H
Leontodon hispidus <i>rough hawkbit</i>	H
Leucanthemum vulgare <i>ox-eye daisy</i>	H
Linaria vulgaris <i>common toadflax</i>	H
Malva moschata <i>musk mallow</i>	H
Ononis repens <i>common restharrow</i>	H
Origanum vulgare <i>wild marjoram</i>	H
Pilosella officinarum <i>mouse-ear hawkweed</i>	H
Ranunculus acris <i>meadow buttercup</i>	H
Ranunculus bulbosus <i>bulbous buttercup</i>	H
Reseda lutea <i>wild mignonette</i>	Bi/H
Rhinanthus minor <i>yellow rattle</i>	A
Scabiosa columbaria <i>small scabious</i>	H
Silene vulgaris <i>bladder campion</i>	H
Solidago virgaurea <i>goldenrod</i>	H

PONDS, POND MARGINS AND WET SOILS

Alisma plantago-aquatica <i>water plantain</i>	H
Angelica sylvestris <i>wild angelica</i>	Bi
Butomus umbellatus <i>flowering rush</i>	H
Caltha palustris <i>marsh marigold</i>	H
Cardamine pratensis <i>cuckoo flower/lady's smock</i>	H
Cirsium dissectum <i>meadow thistle</i>	H
Epilobium hirsutum <i>great willowherb</i>	H
Eupatorium cannabinum <i>hemp agrimony</i>	H
Filipendula ulmaria <i>meadowsweet</i>	H
Galium palustre <i>marsh bedstraw</i>	H
Geum rivale <i>water avens</i>	H
Hypericum tetrapterum <i>square-stalked St John's wort</i>	H
Iris pseudacorus <i>yellow iris</i>	H
Lotus pedunculatus <i>greater bird's-foot trefoil</i>	H
Lychnis flos-cuculi <i>ragged robin</i>	H
Lycopus europaeus <i>gypsywort</i>	H
Lysimachia nummularia <i>creeping Jenny</i>	H
Lysimachia vulgaris <i>yellow loosestrife</i>	H
Lythrum salicaria <i>purple loosestrife</i>	H
Mentha aquatica <i>water mint</i>	H
Menyanthes trifoliata <i>bogbean</i>	H
Myosotis scorpioides <i>water forget-me-not</i>	H
Nasturtium officinale <i>common watercress</i>	H
Nuphar lutea <i>yellow water lily</i>	H
Nymphaea alba <i>white water lily</i>	H
Oenanthe aquatica <i>fine-leaved water dropwort</i>	A/Bi
Oenanthe crocata <i>hemlock water dropwort</i>	H
Persicaria amphibia <i>amphibious bistort</i>	H
Persicaria bistorta <i>common bistort</i>	H
Polemonium caeruleum <i>Jacob's ladder</i>	H
Pulicaria dysenterica <i>common fleabane</i>	H
Ranunculus aquatilis <i>common water crowfoot</i>	A/H
Ranunculus flammula <i>lesser spearwort</i>	H
Ranunculus fluitans <i>river water crowfoot</i>	H
Ranunculus lingua <i>greater spearwort</i>	H
Ranunculus sceleratus <i>celery-leaved buttercup</i>	A
Sagittaria sagittifolia <i>arrowhead</i>	H
Sanguisorba officinalis <i>great burnet</i>	H
Scrophularia auriculata <i>water figwort</i>	H

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RHS PERFECT FOR POLLINATORS WILDFLOWER LIST

PONDS, POND MARGINS AND WET SOILS (cont.)

Scutellaria galericulata <i>common skullcap</i>	H
Stachys palustris <i>marsh woundwort</i>	H
Valeriana officinalis <i>common valerian</i>	H
Veronica beccabunga <i>brooklime</i>	H

SHINGLE/GRAVEL GARDEN

Cakile maritima <i>sea rocket</i>	A
Crambe maritima <i>sea kale</i>	H
Crithmum maritimum <i>rock samphire</i>	H
Eryngium maritimum <i>sea holly</i>	H
Glaucium flavum <i>yellow horned-poppy</i>	Bi/H
Sedum acre <i>siting stonecrop</i>	H
Sedum album <i>white stonecrop</i>	H
Silene uniflora <i>sea campion</i>	H

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Appendix 3 - Reptile Legislation

All British reptiles are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) largely as a consequence of a national decline in numbers due to habitat loss. Under the terms of the Act, it is an offence to intentionally kill or injure a reptile and accordingly in order to avoid committing an offence under the Act, appropriate mitigation techniques need to be incorporated for reptiles occurring within development sites. Mitigation methods for reptiles may include trapping and relocation of animals to a suitable receptor site, combined with the exclusion of the development site through the use of reptile fencing. Measures to enhance habitats for reptiles include the provision of hibernacula and appropriate management to improve foraging areas may also be required.

Mitigation for the more common British reptiles and amphibians does not require a licence from Natural England but would typically be agreed in consultation with the local planning authority.

Despite the range of their distribution and the diversity of habitats in which they may be found, the national status of the slow worm is not considered favourable. The slow worm is considered to have undergone a long term decline since the 1930's. Currently the largest threat has been identified as loss of habitat, in particular, due to a shift in planning policy towards the development of brown field sites (English Nature, 2004).
