Biodiversity Community Toolkit

Crocus Flowers in Bloom in Kendal

www.southlakeland.gov.uk

SOUTH LAKELAND DISTRICT COUNCIL

Contents

1.0 Introduction

South Lakeland District Council is committed to protecting and enhancing biodiversity and nature. Our biodiversity policy encourages habitat creation and restoration, and helps create green corridors and greenspace networks. In 2019, South Lakeland District Council declared a Climate Emergency, and protecting and enhancing biodiversity can help us adapt to climate change. Healthy ecosystems will also be more resilient to climate change and so will be better able to maintain the supply of ecosystem services which our prosperity and wellbeing depend upon. Ecosystem-based approaches should be an integral part of the overall adaptation and mitigation effort.

Our parks and open spaces are crucial to enhancing biodiversity across the district and SLDC have endeavoured to support the increasing numbers of groups in their work. However, we recognise that guidance is needed.

This document describes the ways that community groups can work on our land, how we can support you to do so and sets out our priorities of biodiversity features.

2.0 Scope

This guidance covers public parks and open spaces in South Lakeland. These places may already be green open spaces but could benefit from additional features to support biodiversity more effectively.

South Lakeland District Council operates 22 parks, 16 Semi Natural areas and 8 cemeteries. Some of these green spaces may be suitable for additional Biodiversity features, these are listed below.

The parks written in bold have active friends groups, you may be interesting in joining an existing group:

- **Ornamental Gardens, Grange-over-Sands**
- **Park Road Gardens, Grange-over-Sands**
- **Wilkinson Wood, Grange-over-Sands**
- Grange Fell Cemetery, Grange-Over-Sands
- **Lightburn Park, Ulverston**
- Bardsea Country Park, Bardsea, Ulverston
- Ulverston Cemetery, Ulverston
- Rayrigg Meadow, Bowness-on-Windermere
- School Knott, Windermere

- **Queens Park, Windermere**
- Sheriff's Walk, Windermere
- Bowness Cemetery, Bowness-on-Windermere
- Windermere Cemetery, Windermere
- **Rothay Park, Ambleside**
- Stockghyll Woods, Ambleside
- Broadgate Meadow, Grasmere
- Grasmere Cemetery, Grasmere
- **Nobles Rest, Kendal**
- **Fletcher Park, Kendal**
- Castle Hill, Kendal
- Kendal Heights, Kendal
- Prickley Fell Wood, Kendal
- **Serpentine Wood, Kendal**
- Vicarage Drive woodland, Kendal
- Abbot Hall, Kendal
- Ford Park, Kendal
- Kendal Cemetery, Kendal
- Sedbergh Cemetry, Sedburgh

Cemetries have been included in this list, and whilst we do not have any friends groups for any of cemeteries in the South Lakes, we are keen to improve the biodiversity of our cemeteries through the measures described below.

Traditionally South Lakeland District Council and their grounds maintenance partners, Continental Landscapes, have managed these public parks and open spaces. However, in recent years there has been increasing involvement of local groups such as Friends of Nobles Rest and Ambleside Action for a Future who have been carrying out work on some of our parks and open spaces. The knowledge, skills and aims of these groups all differ but they all share a desire to protect and improve nature in South Lakeland.

This guidance aims to further enable the work of these existing groups and to be a resource for any new groups of friends, volunteers or charities that wish to work on our land to improve biodiversity.

We have listed features that could be incorporated into our parks and open spaces but please note that not all features are possible on all our land. We value your input on this and ask that you assess the space that you are considering proposing work on; the features described in this document will work in many of our spaces if carefully positioned. It is worth taking time to consider the various options and how they fit with the wider network of parks, gardens and street tree habitats. Studying an aerial photo gives a great insight as to how green spaces link up for nature, such as using our parks as a way to connect existing areas of vegetation cover or as a part of a habitat corridor. Once you have an area in mind and an idea of what you want to do please let us know and we can work together to assess the project and support you in planning.

3.0 Benefits

Green spaces benefit nature, humans, the wider environment and our climate. Parks and open spaces can have a positive impact as key habitats in an urban setting, which can contain a great variety of plant species and use less pesticides than nearby farmland. Biodiversity in an urban setting also provides a wide range of social and economic benefit.

For residents, green natural spaces are places to travel through, visit, play in and enjoy:

- Regular exposure to green spaces gives short and long-term benefits to mental and physical health and wellbeing.
- Planting of hedgerow and trees in appropriate locations can reduce local air pollution and reduce urban heat in summer.
- Urban green spaces could be a local and healthy source of food, for example from allotments, community gardens or even bramble and nettle patches.
- Provide a natural and green place to meet friends and family, read a book, learn outside and reflect on the day-to-day life of other creatures.

To the non-human natural world, their benefits include habitats for:

- Pollinators, including bees, butterflies, hoverflies and moths.
- Mammals, including mice, voles, hedgehogs, foxes, badgers and deer.
- Birds, resident, wintering and migrating through South Lakeland.
- Molluscs, including slugs and snails.
- Reptiles and amphibians, including frogs, newts, lizards, grass snakes and toads.
- Fungi and plants, including wildflowers, trees, and the soil ecosystem.

More generally, green spaces:

- Help mitigate climate change by capturing carbon.
- Can help prevent flooding and drought by storing and using rainwater.
- Can be part of sustainable waste management, for example by local food composting or green waste.
- Provide opportunities to recycle materials. For example community gardens and biodiversity features tend to reuse materials like pallet wood for wildlife habitats and bird boxes.

South Lakeland District Council are committed to continue providing access to green spaces and we are keen to recognise a shift towards the need and the desire to make our green spaces more natural, more biodiverse and carbon sequestering.

4.0 How to get involved

If you are interested in getting involved in helping us create and maintain new habitats and deliver biodiversity features on our land there are a few steps to understand.

1. Consider the area that you would like to work on and which feature(s) you would like to include. Please write this into a plan including as much detail as possible to make the process easier.
2. There is an insurance requirement to work on our land, which will cover liability costs of volunteers. We will support you in meeting this requirement.
3. Contact our team by emailing Locality@southlakeland.gov.uk and copy in Climate.Action@southlakeland.gov.uk. Please use the email subject 'Biodiversity Project at X (location)'
4. If you are interested in specifically setting up a friends group at or working on our cementries please contact cemeteries@southlakeland.gov.uk

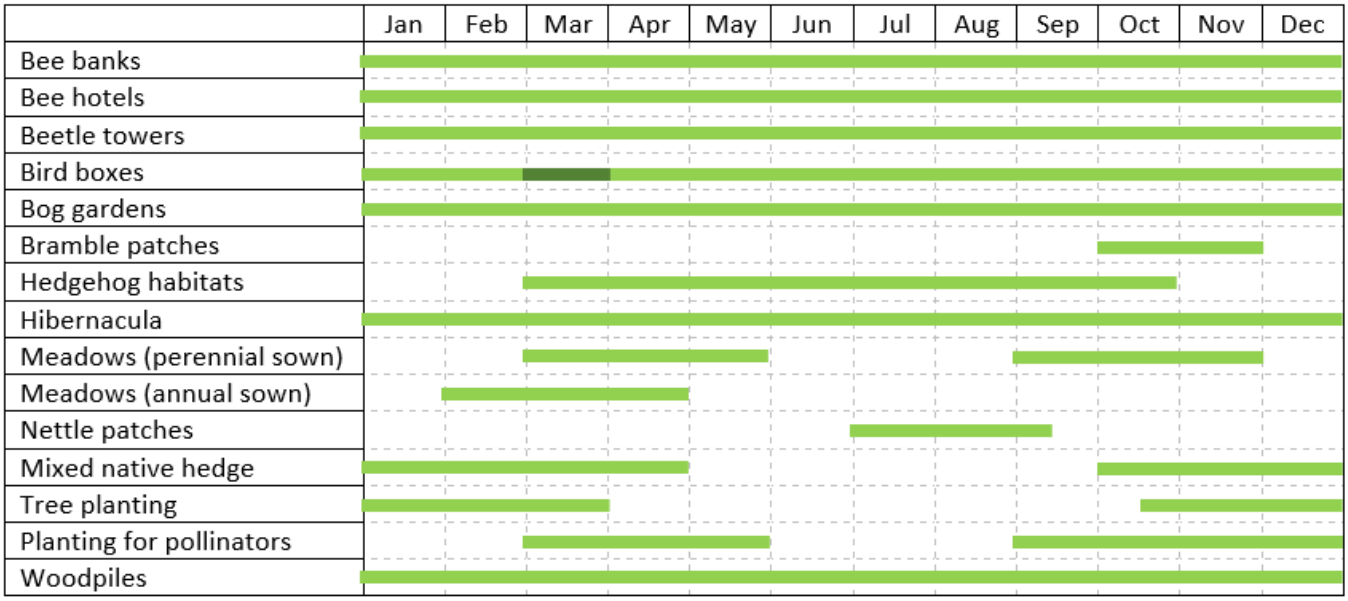
We will then respond to discuss the next steps, whether the proposed work is viable and what will be involved. We do have grounds keeping contractors who we need to liaise with as well as considering current park users; however, we will endeavour to ensure we can find a project for you to work on.

Alternatively an excellent way to get involved is to join current friends groups, we have included those in bold in the list of parks and spaces, and if you're interested to connect with an existing friends group, please email Locality@southlakeland.gov.uk

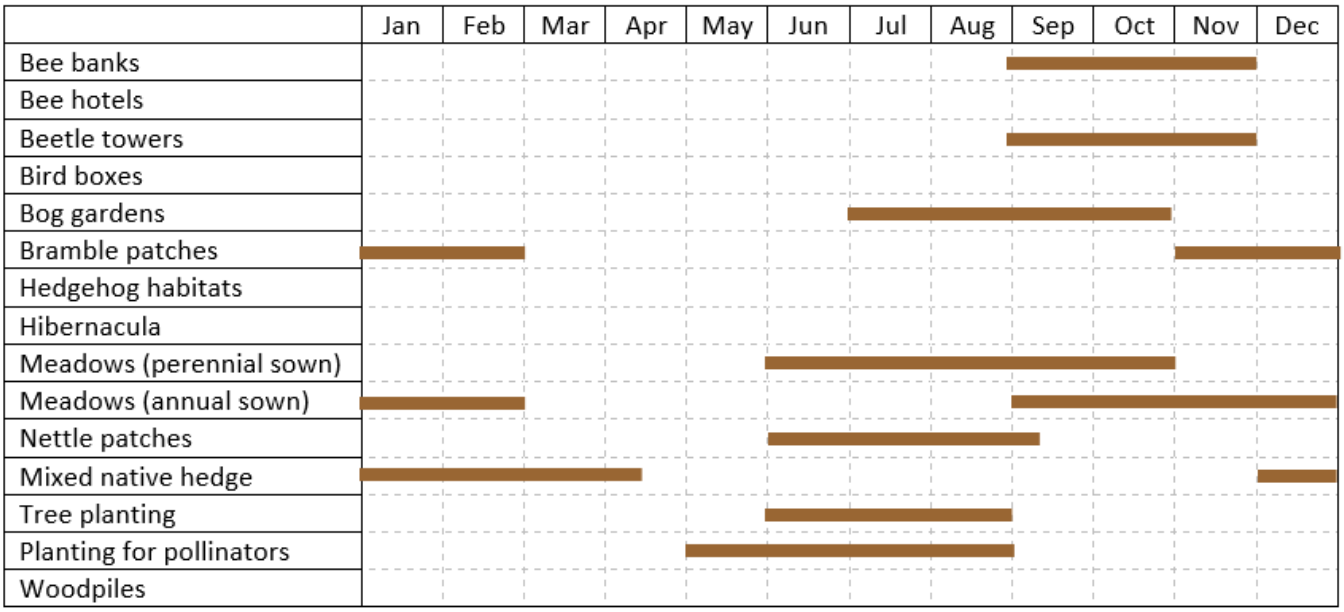
5.0 A-Z of features

Please see our how-to guide for a list of various features with links to further information. Below is a summary of the best times to install a feature and when to maintain them.

Installation Times



Maintenance times



Bee banks

Honeybees and other pollinators face a variety of challenges such as pollution, changing weather patterns, herbicide and insecticides and long-term use of bees industrially.

Of the 267 species of bee in the UK, 220 are solitary, nesting as individuals, although often come together where conditions are right. Mining bees are one category of solitary bee, they nest in underground burrows, which can be encouraged by making bee banks.

Description of feature

Mound of compacted soil kept bare by occasional disturbance

Which species benefit the most

Solitary Bees including miner, mason, sweat and carpenter bees. They are also good habitats for pollinator-friendly plants such as viper's bugloss.

Best location

Sunny locations adjacent to good nectar sources such as meadows, watercourses and woodland. Ideal as one of a suite of measures to improve the biodiversity of a park.

Locations to avoid

Nearby to play or seating areas or on a public path.

Where or how to install

Any time of the year.

The majority of bee species take up residence from March onwards. Installation advice can be found in further information; wooden bays are used to contain sandy material and roofs are used with holes in the bays.

Where or how to maintain

Plant cover might need trimming back in autumn to ensure exposed areas remain for nesting. This feature should be managed by a group of volunteers.

Further information

- Get wildlife rich at the Bee Bank - Gardening for wildlife - Nature On Your Doorstep - The RSPB Community
- Rawcliffe Meadows Work Party Report 17th May 2018 at the Bee Bank | The Friends of Rawcliffe Meadows

Bee hotels

Cavity nesting bees need dry, hollow tubes or holes in logs and walls to lay their eggs.

Description of feature

Structures that mimic the cavities where solitary bees nest and lay their eggs. These can be made from paper straws, hollow stems of plants, drilled bamboo canes or drilled into logs.

Which species benefit the most

Different bee species prefer different diameter tubes. Aim for a range between 2mm and 13mm and a depth of around 100mm

Best location

Different solitary bees need different conditions. In general, site the hotel at least 1m off the ground, on a south-facing wall or alternative sunny location that is protected from strong winds. Place the feature where bees have access to pollen rich habitats.

Locations to avoid

Areas likely to get driving rain, are surrounded by an urban environment with few foraging opportunities close by, or close to play areas.

Where or how to install

Any time of the year.

DIY hotels/houses are simple enough to make, they require a wooden box with a sloping roof and specific holes for tubes.

Where or how to maintain

The tubes can be build up a parasite load over time. Preferably, replace tubes every 2 to 3 years.

Further information

- https://www.cumbriawildlifetrust.org.uk/sites/default/files/2018-08/help-wild-bees-guide.pdf
- https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/build-a-bug-hotel/

- https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/creating-a-bee-hotel/
- www.nightingalegarden.org.uk/bees

Beetle towers

Description of feature

Collection of logs or wood buried in the ground to encourage the wood to rot, providing a habitat for beetles to lay eggs.

Which species benefit the most

Wood boring beetles such as Lesser Stag beetle.

Best location

Stable location unlikely to be disturbed. Some beetles take years to pupate and become adults.

Locations to avoid

Waterlogged soil.

Where or how to install

Any time of the year.

Insect towers are vertical structures made of wood with boxes holding a variety of fillings. Fillings can include canes, bark, wood, rolled up corrugated cardboard, reeds and stones. Drilling holes into deadwood is a really easy way to create a habitat for invertebrates.

These towers will require quite long central posts as at least a third of the post should be set in to the ground.

Where or how to maintain

Keep vegetation clear, so the feature is not forgotten.

Further information

- https://stagbeetles.ptes.org/how-to-build-a-log-pile/
- https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/dead-wood-for-wildlife/

Bird boxes

Description of feature

Structures to provide cavities for hole nesting birds, which can also be popular with tree bumblebees and small mammals.

Which species benefit the most

Different bird species prefer different designs.

Best location

Depends on the desired bird species and whether the appropriate habitats are nearby. Great way of providing nesting opportunities is on a few mature trees with suitable features.

Locations to avoid

Places that cannot be protected against predators, especially cats. Also, areas in full sun as some types of box can overheat in strong sunshine.

Where or how to install

Any time of the year, but before March is best to ensure ready for nesting season. Key points for installing:

- Use untreated wood
- Clean out each year in winter, use boiling water
- Old inner tubes can be used for the rubber strip so the lid can be raised

Where or how to maintain

Clean out old nesting materials at the end of each breeding season in the autumn. You can also pour boiling water inside to kill any parasites.

Further information

- http://actionforswifts.blogspot.com/p/diy.html
- https://www.rspb.org.uk/fun-and-learning/for-kids/games-and-activities/activities/make-a-nestbox/
- https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds/make-nest-box

Bog gardens

Description of feature

A marshy, wet area designed as a habitat for wetland plants but also insects and amphibians. Artificial ones usually have a hole-pierced butyl liner to prevent the soil above drying out. This can be planted or just left to develop its own flora.

Which species benefit the most

Native marsh flowers, amphibians and invertebrates.

Best location

Near a water source such as an overflow to a pond, water butt or at the base of downpipes from roofs.

Locations to avoid

Anywhere that might dry out, deep shade.

Where or how to install

Any time of year. See further information for instructions on how to install.

Where or how to maintain

You may want to top them up with water but should not be reliant on mains water. Plants will need occasional thinning in the autumn to prevent single species dominating or the feature drying out.

Further information

- www.rhs.org.uk/advice/profile?PID=356
- https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/water-for-wildlife/small-water-features-and-bog-gardens/
- https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/dig-a-damp-ditch-for-diversity/
- https://www.wwt.org.uk/discover-wetlands/gardening-for-wetlands/how-to-build-a-mini-drainpipe-wetland/

Bramble patches

Description of feature

Area of wild blackberry allowed to thrive and managed on a cyclical rotation.

Which species benefit the most

Butterflies and moths for nectar and larvae food. Birds and small mammals for nesting, cover and food. Berries can be consumed by humans.

Best location

Sunny spot adjacent to other habitats.

Locations to avoid

On existing good quality grassland, adjacent to footpaths for cycleways due to the risk of thorns.

Where or how to install

Many parks will have patches of bramble already established. Planting new plants is best done in the autumn / early winter. Select certified disease-free plants and amend the soil in the bed with compost. Plant brambles 4-6 feet apart in rows spaced 5-10 feet apart. Plant at the same depth the brambles were in their pots.

Where or how to maintain

Cut edges back annually to ensure brambles do not encroach into unwanted areas. Part of the patch should be cut back to ground level in the winter every two years, to ensure a varied structure and encourage flowering and fruiting on newer canes.

Further information

- How to Grow Brambles -Growing Raspberries and Blackberries -Garden Brambles (gardeningwithcharlie.com)
- Growing Organic : Brambles: Growing Blackberries and Raspberries (gardentalkandtips.blogspot.com)

Hedgehog habitats

In the 1950s, there were around 30 million hedgehogs in the UK but, in 2019, there are probably just 1 million. There are many reasons for this decline but also ways we can make our parks and gardens more friendly to Hedgehogs.

Description of feature

Construct or maintain nesting and forging habitats. This can include adding a shelter specifically designed for hedgehogs. The further information section gives extra descriptions on these.

Best location

Dry shaded area, away from noise, people and pets.

Locations to avoid

Busy areas of a park with lots of dogs or close to main roads.

Where or how to install

Before November.

Where or how to maintain

General maintenance of sites may be required but try to ensure the site looks as natural as possible. Hedgehogs carry parasites so be careful and wear gloves.

Further information

- https://www.britishhedgehogs.org.uk/
- https://www.cumbriawildlifetrust.org.uk/sites/default/files/2018-08/Help-Hedgehog-free-guide.pdf
- https://www.hedgehogstreet.org/

Hibernacula

There is an overlap between habitats designed for cavity-laying bees, ones for insects and ones for overwintering small and larger amphibians and mammals (sometimes called Hibernacula). Over wintering creatures will seek out cool, dry, stable places to hibernate. Hibernacula are safe places for them because once they are made, they are left alone.

Description of feature

A reasonably dry and cool space for creatures to hibernate over winter in safety.

Which species benefit the most

Any creature that hibernates including hedgehogs, frogs, newts and toads.

Best location

Close to other habitats. Choose an area that won't flood and isn't in permanent sunshine.

Locations to avoid

Areas in full sun or those which could become waterlogged.

Where or how to install

Dig a hole or make a pile of rocks, bricks, stones, logs, soil and wildflower seed. Ensure there are holes between each element to enable wildlife to access it, however too many larger holes will make the hibernacula draughty.

Where or how to maintain

General tidying may be required by volunteers to ensure feature does not get lost. As wood rots, more can be added when appropriate.

Further information

- https://www.wildlifetrusts.org/actions/howbuildhibernaculum-amphibians-and-reptiles
- https://www.froglife.org/wp-content/uploads/2015/09/Hibernacula.pdf

Meadows (Perennial sown)

You can achieve a wildflower meadow by careful management of the existing grass or you can prepare an area of bare earth and sow with a variety of native and carefully selected non-native species. This can be by sowing seed or using ready-prepared turf.

Description of feature

Meadow sown once with mainly perennial species, including soft grasses.

Which species benefit the most

Pollinators and insects.

Best location

Anywhere that isn't too shady.

Locations to avoid

Waterlogged areas or those liable to flooding.

Where or how to install

They are best laid down on prepared bare ground in spring or autumn.

Where or how to maintain

Can need irrigation, weeding, two or more cuts in the first summer to reduce weed load. Cut and collect in the Autumn or early the following spring.

Further information

- https://wildseed.co.uk/page/sowing-and-aftercare

Kendal Castle, Kendal

Meadows (annual sown)

Annual meadows can be a popular ‘first meadow’ to trail a location’s suitability. These are prepared on bare earth each Spring and seed is sown as per the supplier’s instructions. There is therefore an annual cost. They usually flower around June to July and in autumn or late winter they can be scythed (or strimmed) down to a low level. After one or more years of annual meadow, they can be replaced with perennial meadows, either sown or using pre-established turf.

Description of feature

Meadow-like planting of annual flowers sometimes mixed with grass seed.

Which species benefit the most

Pollinators and insects but park users will also enjoy the colourful displays.

Best location

Sunny locations.

Locations to avoid

Heavily shaded or waterlogged areas.

Where or how to install

They are best laid down on prepared bare ground in spring or autumn.

Where or how to maintain

Can need irrigation and weeding during establishment, followed by an annual cut and collect.

Further information

- https://www.rspb.org.uk/get-involved/activities/givenature-a-home-in-your-garden/garden-activities/sowapoppypatch/
- https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/create-a-wildflower-meadow/

Nettle patches

Nettles are one of the most important native plants for wildlife in the UK, supporting over 40 species of insect. They can provide a challenge when trying to establish other habitats such as meadows or around playing fields, but they are the easiest way of boosting biodiversity and should be embraced with this in mind.

Description of feature

Area in which nettles are allowed to flourish.

Which species benefit the most

Specialist invertebrates, birds, such as blue tits, who eat over-wintering nettle aphids, and also species that eat their late-Summer seeds such as house sparrows, chaffinches and bullfinches.

Caterpillar food plant for many colourful Butterflies, including small tortoiseshell, comma, peacock, and red admiral. Also, moths, including burnished brass, golden Y, small magpie, mother of pearl, and spectacle.

Best location

A sunny sheltered location is best for butterflies. Nettles like rich soil but will grow in most conditions. Larger patches tend to support more species.

Locations to avoid

Adjacent to paths, benches, play areas and other places where people are likely to get stung. Next to habitats, which they may invade such as species rich meadows.

Where or how to install

Late summer.

Where or how to maintain

Can managed the patches by trimming and mowing in summer.

Further information

- www.nettles.org.uk/nettles/wildlife.asp
- www.wildlifetrusts.org/wildlife-explorer/wildflowers/stinging-nettle

Mixed native hedge

Mixed native hedges are excellent for biodiversity, providing food, cover and corridors to aid species moving around.

Description of feature

Hedge planted from several species of native trees and shrubs. Species can include beech, blackthorn, crab apple, dog rose, dogwood, field maple, guelder rose, hawthorn, hazel, holly, hornbeam, spindle, wayfaring tree, wild cherry and wild privet.

Try to include three plants of the same species per 1 metre with one each of two other species.

Which species benefit the most

Birds, invertebrates, butterflies and small mammals, including hedgehogs.

Best location

Park boundaries, linking other habitats and gardens.

Jubilee Playing Fields, Kendal

Locations to avoid

Blocking views of junctions or screening areas that encourage anti-social behaviour.

Where or how to install

Cheapest to plant from bare root ‘whips’ from late Autumn to early Spring. Delay planting if the soil is frozen or waterlogged. Prepare a weed free strip for planting in a double staggered row of 5 plants per metre. Mulch with bark chippings to recue competition from weeds and retain soil moisture.

Where or how to maintain

Hedgerows require regular management most likely by our operations team, recommended in late Winter or early Spring. Cutting different sides or sections on a rotation can ensure an annual supply of flowers and berries.

Informal hedges and trees are better than those that are regularly clipped, for instance hawthorn will produce few or no flowers if kept trim.

Further information

- www.rhs.org.uk/advice/profile?pid=377
- https://www.wildlifetrusts.org/actions/how-make-hedge-wildlife
- https://www.cumbriawildlifetrust.org.uk/actions/how-make-hedge-wildlife
- https://www.bbc.co.uk/gardening/basics/techniques/organic_nativehedge1.shtml

Tree planting

Trees planted in a variety of locations can have far-reaching positive environmental impacts.

Description of feature

Species should be native and choosing trees of UK provenance avoids importing tree diseases.

Suggested species: alder, common beech, crab apple, elder, English oak, field maple, hazel, holly, rowan, silver birch, wild cherry.

Which species benefit the most

Birds, bats, pollinators, invertebrates, birds and mammals.

Best location

Anywhere with plenty of space to allow growth with plenty of light and not too wet.

Locations to avoid

You should plant a tree at least its mature height away from the nearest building.

Avoid planting too close to ponds where leaves could fall in and disrupt the ecosystem.

You cannot plant trees on wetlands, heathlands, grassland that has never been ploughed or sites with protected species.

Where or how to install

Mid-October to late March. Buy a seedling between 60-90 cm tall (a 'whip') for the quickest growth rate. “Some sites will take larger trees, but this will be assessed by a site by site basis”.

Ford Park, Ulverston

Where or how to maintain

Keeping a 1 metre diameter around the tree clear of weeds and grass for the first 2-3 years will reduce competition for moisture and nutrients.

You can suppress weeds with mulch, such as bark chips or straw bales. Apply it to a depth of around 10cm to prevent it being blown away or dispersed and top it up annually.

Local Example

Fletcher Park, Kendal

Further information

- https://www.cumbriawildlifetrust.org.uk/actions/how-plant-tree
- https://www.woodlandtrust.org.uk/plant-trees/advice/where/
- https://www.woodlandtrust.org.uk/plant-trees/advice/care/
- https://www.rhs.org.uk/plants/types/trees/native-tree-shrubs

Planting for pollinators

Different species of pollinators prefer different plants. Generally it is best to have as many kinds of flowering plants with different shapes and colours to flower from at least February to November. This is achieved using a structure of perennial plants and trees, with bulbs, annuals and biennials added.

Description of feature

A diversity of flower shapes and types across the year. From early Spring flowers, such as crocus and primroses, to later flowering Verbena bonariensis and echinacea.

Which species benefit the most

Bees, butterflies, hoverflies, moths.

Best location

Nobles Rest, Kendal

Mostly anywhere if you adopt a ‘right plant for the right place’ scheme. Full-sun can also be beneficial.

Locations to avoid

Very shady, dry or waterlogged ground, however some species may still be suitable.

Where or how to install

Best planted in autumn or spring. Most perennial plants are best moved in Spring or Autumn. Bulbs are planted in Autumn.

Where or how to maintain

Weeds can be suppressed by dense planting and use of organic mulch such as woodchips.

Local Example

Ornis Ring, Grange-over-Sands

Planted border at Ornis Ring, Grange-over-Sands

Further information

- https://www.rhs.org.uk/science/pdf/conservation-and-biodiversity/wildlife/plants-for-pollinators-garden-plants.pdf
- https://www.buglife.org.uk/get-involved/gardening-for-bugs/gardening-for-bumblebees/
- https://friendsoftheearth.uk/nature/gardening-bees

Woodpiles

Piles of wood attract invertebrates and anything that feeds on them, including frogs and newts. Small mammals and hedgehogs like them as shelter too.

Description of feature

Semi-permanent collection of wood, including logs, designed as a habitat. They can be above ground with earth piled up to support them or dug into pits in the ground to encourage the wood to rot for beetle larvae.

Which species benefit the most

Invertebrates, amphibians, small mammals. Species of fungi that live on rotting wood.

Best location

Sun or shade will determine the species present and how long the feature persists.

Locations to avoid

Places that will be disturbed frequently. Highly waterlogged places.

Where or how to install

Any time of year.

Where or how to maintain

Might need vegetation clearing back occasionally. When logs decay, new ones may need to be added.

Further information

- https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/create-a-log-pile-for-wildlife/
- https://www.wildlifetrusts.org/actions/how-make-log-shelter