



**The
good
verge
guide**

**Your go-to guide for transforming
local verges into wildlife havens**



The good verge guide

Your go-to guide for transforming local verges into wildlife havens

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A different approach to managing road verges

Plantlife's vision for Britain's road verges is one where they are managed for wildlife as a matter of course. Restoring flower-rich habitats along our road network ensures the survival and natural spread of both common and rare species – for their own sake, for the sake of the wildlife they support, for the environmental benefits they bring and for that all-important contact with nature for Britain's road users.

Whether you want to learn more about verges on your doorstep, discover how best to manage rural or urban verges or want some advice on starting a local group to lobby your council for better management, *The Good Verge Guide* is a great place to start.

This straightforward guidance can be used alone or in tandem with our best practice technical guide, *Managing Grassland Road Verges*.

We believe that the adoption of a few basic principles will significantly improve the biodiversity on our verges, help reduce costs and carbon emissions, and bring benefits for wildlife, for us and for future generations.



The value of verges

There are over **313,000 miles** of rural road verge in the UK. This is equal to **half** of our remaining flower-rich grasslands and meadows.

If our management guidelines were followed on all our verges, we could enjoy an estimated **400 billion** more wild flowers.

For the **23 million** people commuting to work by road every day, road verges can be their only daily contact with nature. The procession of colour through the year – cowslips, bluebells, cow parsley, oxeye daisies, orchids, scabious, foxgloves and knapweed – keeps us in touch with the changing seasons and provides us with a sense of place: pyramidal orchids on the southern chalk downs, wood crane's-bill in the Yorkshire Dales and melancholy thistle in Scotland.

One mile of flower-rich verge can produce **20kg of nectar sugar per year**, enough to feed millions of pollinators.



Purple milk-vetch

Deptford pink

Wood bitter-vetch

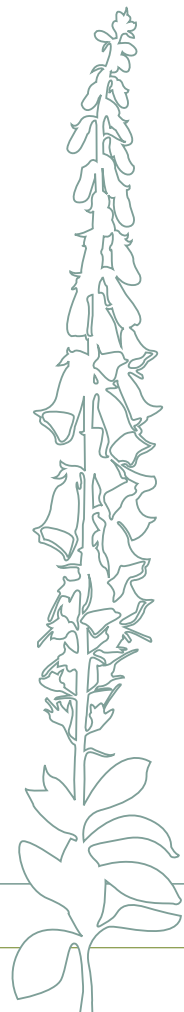
Spignel

Velvet lady's-mantle

Over **700 species** of wild flowers grow on our road verges, that's nearly 45% of our total flora. Road verges are home to many familiar wild flowers that are now becoming threatened, such as harebell, field scabious and ragged-Robin.

Some **87** of these are threatened with extinction or are heading that way, including the largest British populations of rarities such as Deptford pink, tower mustard and spiked rampion.

With over **97%** of wildflower meadows destroyed since the 1930s, road verges are a vital refuge for bees, butterflies, birds, bats and bugs. A good verge will supply a diverse source of nectar and pollen from the first celandines in February to the last Devil's-bit scabious in September. Bird's-foot trefoil alone is a food plant for over **130 species of invertebrate**.



Man orchid

Crested cow-wheat

Sulphur clover

Field gentian

Spreading bellflower

Lesser calamint

Meadow clary

The diversity of road verges...

There are two main types of road verge in the UK:

Enclosed verges are separated from neighbouring land by a fence, hedge or wall. These verges require specific management – usually cutting – in order to maintain their wildlife interest. They are the most common type of verge in the lowlands, but also occur in upland areas.

Unenclosed verges are not separated from neighbouring farmland by any boundary and their management generally comes from grazing livestock that wander onto the verge. They occur in lowland areas where roads pass through heathland, moorland and across common land, but are most frequent in upland and mountainous areas.

Our verges are as diverse as the countryside they pass through:

Lowland grassy verges are the most widespread and are found throughout the UK. A good example will be home to meadow flowers such as cowslips, oxeye daisy, scabious, clovers, vetches, knapweed and meadow crane's-bill. Flowery and exuberant, they can support magnificent displays of orchids, especially the various spotted and marsh orchid species, but also pyramidal and early purple orchids. Thanks to the infertile soil, the sward is thin and short, with delicate grasses like sweet vernal grass, quaking grass and crested dog's-tail allowing plenty of room for other flowers to grow. On the best verges that are cut later in the year, yellow rattle also helps to keep the grass down.

Upland grassy verges, found in Wales, northern England and Scotland, are often wetter and more acidic than their lowland counterparts, sometimes resembling rare upland hay meadows. Devil's-bit scabious is characteristic, along with wood crane's-bill, bistort and melancholy thistle. These verges can support large populations of heath spotted orchid and northern marsh orchid. Such verges tend to grow more slowly and are usually cut late in the year, although unenclosed verges are often grazed by livestock from surrounding hills and moorland.

Urban grassy verges have significant potential. A rich tapestry of small flowers can provide a much needed nectar and pollen hit. When well managed, they can brim with daisies, dandelions, trefoils, vetches, selfheal and yarrow, and provide a welcome pop of colour in urban settings.

Heathy verges are found on dry, poor soils in lowland areas of England and Wales where roads pass through areas of heathland, or more widely in upland areas of the UK; they are especially common in Scotland where roads often pass through areas of unenclosed moorland. Such verges can provide colourful displays of heather (ling) and bell heather, along with gorse and bilberry (blaeberry), and flowers including tormentil, heath bedstraw and sheep's-bit scabious. Since their growth is quite slow, these verges are not cut annually; they are usually unenclosed and are often grazed by livestock from surrounding land.

Wooded verges can be simply magical in spring, with flamboyant displays of woodland flowers along shaded lanes under a canopy of leaves. Primroses, bluebells, celandines, wood anemone, ramsons, greater stitchwort and violets all herald the arrival of spring, along with early purple orchid nestled among the ferns. Later, foxgloves and red campion continue the show, and in a few places in the west, rarer bastard balm and spreading bellflower can be found. Grasses tend to grow thinly in the shade, so if cutting is needed, it's usually done in June and July when the spring flowers have set their seed.

Damp verges and ditches can be found at all altitudes and provide a different type of floral display. In the lowlands, the vegetation can grow quite tall and lush – almost like a fen in character – with ragged-Robin, meadowsweet and purple loosestrife interspersed between rushes and reeds. In the ditches themselves, deeper-water plants can thrive, such as yellow iris and hemlock water-dropwort. On poorer soils in western areas, damp verges can be home to rush-pasture (rhôs pasture), characterised by rushes, whorled caraway, lesser spearwort and sneezewort. By contrast, the wettest verges in the uplands and the far north-west of Scotland can even resemble bogs, with mounds of sphagnum moss home to insectivorous sundews and butterworts, along with bog asphodel and cottongrass.

The diversity of our verge flora is staggering. The vast palette of wild flowers allows some remarkable pictures to be painted, with plants coming together in myriad combinations that lend local character and identity to our verges, such as:

Sunken lanes in Devon with bluebells, bastard balm, wood anemones and ferns

Dry, grassy verges in eastern Scotland with maiden pink, hoary cinquefoil, knotted clover and meadow saxifrage

Chalk downland verges on Salisbury Plain with pyramidal orchids, thyme and squinancywort

Upland verges in mid Wales with wood bitter-vetch, butterfly orchids and heath bedstraw

Clay-rich verges in East Anglia with sulphur clover, crested cow-wheat and dyer's greenweed

Limestone verges in the Yorkshire Dales with bistort, wood crane's-bill and lady's mantles

Damp heathland verges in western Scotland with butterworts, cottongrass and sphagnum mosses



Road verge winners and losers

A perfect storm in the last few decades has seen huge changes in our road verge flora. Changes in the way we cut and manage verge habitats – increasing fertility of roadside soils, budget constraints and difficulties with the collection of litter and grass clippings – mean verges are under considerable pressure. Some species have suffered, disappearing from view, while others have done well and are thriving and spreading.

One noticeable trend is that with the move to earlier and earlier cutting in spring, **we're erasing summer from our verges**. Only plants that flower early have a chance to set seed before the mowers arrive. As a result, some spring flowers are thriving and spreading, but summer-flowering plants – many of which typify our beautiful meadows – are disappearing. This isn't just bad news for flowers, it is bad news for the bees, beetles, butterflies and birds that rely on plants for food.

In addition, vigorous perennial plants and some invasive introductions are better at surviving the tough roadside conditions we've created, so these are increasing at the expense of more delicate species.

Winners...

Cuckooflower, cowslip, garlic mustard and celandine

All these early-flowering species put on fantastic displays on many verges. They set their seed quickly – within just a few weeks – and are therefore able to spread before the first cut. While bluebell does well on some verges, its seeds take longer to ripen and rarely have a chance to be spread before the mowers arrive.



Cow parsley

Although loved by many, especially when roads are garlanded with delicate white lace in May, this can be an invasive native perennial when nitrogen levels are high. It has undergone an explosion in abundance on our verges, where it relishes the increasingly fertile soils. It reproduces vigorously by vegetative spread and doesn't need to set seed to survive, so it can spread in the face of early mowing, out-competing many other roadside flowers.

Three-cornered garlic

This highly invasive non-native bulb produces white flowers in spring and was introduced from the Mediterranean, first escaping from gardens in 1849. It is spreading rapidly along road verges and is now found from Land's End to Orkney, being especially abundant in south-west and south-east England and around the Welsh coast. Like other invasive arrivals such as montbretia and hybrid bluebell, it forms dense colonies that can out-compete our native flora.

Losers...

Yellow rattle and eyebrights

These summer-flowering annuals are classic meadow species but they need to set seed every year in order to survive. Early spring cutting has all but eradicated them from verges, which is ironic as they could be the saviours of our verge flowers and help control the growth of grass (see 'Yellow rattle' on page 17).

White campion

Once common and widespread on our verges, this summer-flowering perennial is short-lived and relies on new plants regularly growing from seed. Like many other summer-flowering meadow perennials, such as field scabious, betony and knapweed, it is becoming rarer on verges, with consequences for pollinating insects.

Man orchid, greater butterfly-orchid, green-winged orchid and frog orchid

While these orchids flower in early summer, like most of the 25 orchid species found on our roadsides, their seed pods take weeks to ripen. Early cutting destroys them and the hundreds of thousands of seeds they contain. As a result, these orchids are now rare on verges, except those that are properly managed.



White campion (*Silene latifolia*)
Illustration by Andrew Evans

The what and why

The primary aim of our Road Verge Campaign is to bring good management to as much of the road network as possible. When implemented, the practical steps outlined in this guide will help to maximise flowering plant diversity on our verges and the subsequent benefits for invertebrates and other wildlife. These guidelines recognise that roads must be kept safe for all users, and that cutting safety cuts, sightlines and junctions are a priority and must be carried out to ensure safety.

These guidelines are based on a review of grassland, meadow and verge management, especially long-term studies that investigate the effects of cutting dates on vegetation. These show three interesting things:

1 Early cutting dates reduce floral diversity over time. Deprived of an opportunity to seed, early cutting encourages the vigorous growth of robust, long-lived species that are more likely to spread vegetatively.

2 Late cutting dates also reduce floral diversity over time. If cutting is delayed too late in the season, this encourages the build-up of a thick 'thatch' of dead and dying vegetation forming a mat over the soil. Again, this encourages the growth of more vigorous species that don't rely on open soil for seed to germinate, as many of our wild flowers do.

3 Even worse is no cutting at all. If grasslands and verges are left uncut even for just one year, their composition begins to change and species begin to decline. Basically, grassy verges are sensitive to changes in management and there appears to be a narrow window of opportunity each year – from August until the end of September – when cutting helps to maximise species diversity.

Our principle aim, therefore, is to delay the first cutting date of lowland grassy verges from early spring until late summer. The first cut should be undertaken in a period between August and the end of September, when seeds have been shed. The exact date depends on local conditions, as determined by latitude and altitude. Typically it will be around August in southern England and south Wales, August in the English midlands and lowland mid-north Wales, and September in upland England, Wales and most of Scotland.

Plantlife's road verge management guidelines

Four main principles lie behind our guidelines:

- 1 Annual management is essential.** Some form of verge management is essential to maintain flower-rich habitats. Without regular management, studies have shown that most grassland flowers disappear rapidly. Even if the grass is left uncut for a single year, coarser vegetation will start to become more dominant. Over time, uncut verges turn into scrub and woodland.
- 2 Grow, flower, seed, mow.** Plants need to complete flowering and set seed in order to thrive. Generally, most flowers take roughly six to eight weeks from flowering to successfully shed viable seed. Cutting plants down in full flower deprives invertebrates of nectar and pollen and stops plants reproducing from seed. Regular early cutting quickly eliminates some species, such as yellow rattle, which can even help keep grasses under control.
- 3 Remove the cuttings.** Removal of grass clippings plays a major role in maintaining species-rich vegetation on verges, curbing the growth of vigorous plants that smother their neighbours and helping to reduce soil nutrient levels. It also removes the thatch of dead vegetation, exposing underlying soil and giving seeds room to germinate. Although this can be a challenge to do in practice, some councils are investing in 'cut-and-collect' equipment and also investigating the use of clippings as biofuel, making the practice economically viable.
- 4 Mix it up.** Different plants, insects and animals require different ecological conditions, so verges with a diversity of open areas, scrub and woodland will support more species. A mixture of long and short grass will also benefit invertebrates. Leaving a strip of longer, uncut grass at the back of the verge is especially helpful for invertebrates, as long as it is cut on a rotation every two to three years. Even if the whole width of the verge is cut, some long grass is usually left standing at the back of the verge, providing essential habitat.

The how

We have developed four different management options: **A** Simple road verge management is aimed at all enclosed grassy verges regardless of current condition; **B** is enhanced road verge management for verges that are still species-rich; **C** sets out management options that work well for urban verges, and **D** provides advice on managing other types of verge habitats.

A

Simple management for grassy road verges

For all enclosed grassy verges (apart from those areas such as junctions, where safety is a priority)

If only one cut is possible:

Cut the full width of the verge once a year, between August and the end of September, and remove the cuttings where possible. This allows plants to flower and, importantly, gives time for seed to be set.

If more cuts are possible, choose between:

A: Cut the full width of the verge between mid-July and the end of September. Then cut once more before Christmas.

This is the ideal option to conserve and enhance wild flowers, as it mimics the pattern of traditional meadow management.

Or...

B: Cut the full width of the verge as early as possible, during February or March. This is before most verge plants flower and it won't disturb ground-nesting birds. Cut the full verge again during September or October. This slightly later date for the second cut allows plants that were cut earlier in the year sufficient time to flower and set seed.

If it is not practical or desirable to cut the whole width of the verge:

A: On large verges, cut a one-metre strip at the edge of the verge as early as possible during February or March. This allows grass at the back of the verge to grow, providing a diversity of habitat that is especially important for invertebrates.

Or...

B: On small verges of less than one metre wide, leave some sections uncut – for example, 100-metre sections every 200 metres. In both these cases, cut the full width of the verge during September or October.

Plantlife's road verge management guidelines

B Enhanced management for grassy road verges

For verges identified as being of medium or high wildlife quality for example, still rich in wild flowers

Depending on the type of vegetation and diversity of species present, verges should receive more careful management as follows:

Typical meadow-type verges: To maintain a typical meadow-type verge (for example, grassland around knee height with cowslip, buttercups, oxeye daisy, knapweeds, crane's-bills, orchids), cut the full width of the verge twice a year between August and Christmas. Generally, the later the first cut the better, as it allows more species to shed their seed, especially orchids. On verges of low fertility and high diversity, the first cut can be delayed to mid-October, with another cut if necessary before Christmas. See also 'Collection of clippings' on the right.

Dry soils and coastal situations: On verges with dry soils (for example, chalk grassland) and in coastal situations with short species-rich grassland that reaches around ankle height, frequent cutting can take place up until April and commence again from the end of August. This avoids the main flowering period from mid-May through to the end of August and will help develop a short, flower-rich turf with clovers, trefoils, selfheal and other small species. These verges can provide a long continuity of flowers that are valuable for bees and other insects.

Collection of clippings: On all grassy verges of wildlife importance, it is beneficial to gather and remove grass cuttings, either by hand or by using suitable cut-and-collect machinery. This will reduce the build-up of organic material (a thatch of cut grass), keep nutrient levels low and ensure plenty of bare ground for plants to regenerate from seed. Studies have shown this to be a major factor in maintaining verge biodiversity. Cuttings from wildflower-rich verges can be used as green hay to benefit other local verges, meadows or grasslands.

Rare species: Where a verge has a species of special interest (for example, exceptional vegetation or a rare flower or insect), specialist advice should be sought regarding the most appropriate management regime. Such verges may be singled out by the Highways Agency, the County or Parish Council, or the local Wildlife Trust as Road Verge Nature Reserves (RVNRs) or as County Wildlife Sites (depending on county).

Plantlife's road verge management guidelines

C Managing urban grassy road verges

Balancing the needs of wildlife and the desires of residents can be challenging. When councils implement changes to cutting regimes to make urban verges and green spaces more wild flower and wildlife-friendly, they can receive complaints that the grass looks scruffy and unkempt. The good news is that you can encourage flower-rich verges with visible management.

A buzz cut for biodiversity

Road verge vegetation doesn't have to be tall to be wildlife-friendly. Species such as clovers, trefoils, dandelions, selfheal, creeping buttercup and yarrow grow quite happily at ankle height and support a huge array of pollinators.

There are two key factors in maintaining short, flower-rich verges. The first is to reduce cutting to once every four weeks to a height of around 3cm to 6 cm; Plantlife's Every Flower Counts survey has shown this rate of cutting allows short-grass plants to flower abundantly between the cuts, and the plants themselves survive and continue growing. The second is cut-and-collect, whereby the grass cuttings are removed from the site. Collecting the thatch of decaying grass removes nutrients and, over time, allows more wild flowers to thrive and less vigorous grass to dominate.

Framing verges

Cutting a one-mower-width along the front edge of a verge encourages wild flowers and wildlife, while helping to keep the verge looking tidy – it lets people know that the longer grass is being left intentionally and hasn't just been neglected. This approach also has two other important benefits:

Keeping roads safe: The area of shorter grass at the front of the verge can preserve good visibility and ensure safety at junctions. It also keeps footpaths through green space open and accessible.

Structural diversity: The two different heights of vegetation – short in the front and long at the back – are great not only for plant diversity (some species are naturally low growing, others tall), but support lots of insect life, too.

Signage

Flower-rich verges are increasingly popular with local communities and are a great way of encouraging wildlife into the heart of the built-up environment. Putting up signs on verges makes it clear that wilder verges are intentional and are part of a management plan.

Plantlife's road verge management guidelines

D Management of other road verge habitats

Unenclosed road verges: Where verges are not separated from the surrounding countryside by a fence, hedge or wall, they will be grazed by livestock from the land around. Usually, they do not need any additional management. In upland areas, such verges don't grow as vigorously, but in the absence of grazing, grassy verges may require a cut every three to five years, ideally in September. Changes in the management of surrounding farmland and habitats (for example, undergrazing of heathland commons in lowland England and Wales) can affect the vegetation of verges and, if the change is deleterious, should be tackled as part of the management of the habitat as a whole.

Ditches: These are important components of the verge, providing both essential drainage and opportunities for wildlife. Often, they are enriched with silt and nitrogen washed from the road's surface or from neighbouring farmland. As a result, ditches can grow luxuriantly but, being at the back of the verge, generally don't pose a problem for road safety. They should be maintained regularly by digging out; deposition of the spoil on the surrounding verge is generally not a problem and can actually be beneficial, providing bare soil for germination.

Woodland and shaded verges: Verges rich in early-spring flowering woodland species, such as primrose, bluebell, wood anemone and ramsons, often have a thin growth of grass and don't usually need cutting very often; a late summer cut, though, is helpful to keep woody plants like brambles, holly and saplings under control. Such verges should not be cut between the end of January and mid-July to allow early spring flowers to grow and set seed. Steep, shaded lanesides and hedge banks should be treated in the same way. It is not usually necessary to collect clippings if the grass is thin.

Hedgerows, scrub and woodland: On larger verges, areas of woodland and scrub at the back of the verge should be retained, as these will provide valuable habitats for birds and other wildlife. These should be managed by cutting on a rotation of up to 10 years. Hedgerows also provide important shelter and should be maintained on a rotational basis. Any cut material should be removed from the verge.

Herbicides: Wherever possible, eliminate the general use of herbicides. Their use encourages the development of vigorous, rank vegetation and a vicious cycle of spraying can develop, where costly herbicides are used repeatedly to control the same weeds again and again. They do, however, have a role to play in the control of invasive native and non-native species, notifiable weeds and for treating the stumps of cut trees and shrubs where alternative techniques are ineffective.

Sowing wildflower seeds on road verges

Urban verge enhancement with seed mixes

The sowing of colourful non-native annuals on urban roads and roundabouts brings a welcome splash of colour and a high density of pollen- and nectar-rich plants for pollinators. These displays can be fabulous to look at, raising the spirits and curiosity of commuters and passers-by. However, they can also cause controversy. This is because they are popularly referred to as ‘wildflower meadows’.

Although they aren’t meadows in the true sense – often having no grasses that give natural meadows their softer colour – this type of urban enhancement encourages society beyond the ‘neat and tidy’ approach, which has resulted in the decline of so many native species.

However, it is worth bearing in mind that while they provide a quick fix for pollinators, they do little to support the huge numbers of invertebrates that feed on native meadow flowers. Mixtures of annual, often non-native species can be expensive to buy and labour intensive to maintain.

Establishing mixes of perennial native flowers, which don’t require sowing each year, will require minimal annual management and bring greater benefits to a wider range of wildlife. With the right management, they will improve each year with a spectacular display of flowers.

© Pictorial Meadows



Rotherham’s designer meadow

A typical meadow can support over 1,400 species of invertebrates. Here are a dozen of the best road verge plants that benefit insects

* rating = value to pollinators

X rating = value as foodplants for insects – for example, caterpillars

Short-grass plants	Bird’s-foot trefoil (<i>Lotus corniculatus</i>)	*	XXX
	Common cat’s-ear (<i>Hypochaeris radicata</i>)	***	X
	Dandelion (<i>Taraxacum officinale</i>)	***	XXX
	Red clover (<i>Trifolium pratense</i>)	***	XXX
	White clover (<i>Trifolium repens</i>)	***	XXX
	Yarrow (<i>Achillea millefolium</i>)	**	XXX
Long-grass plants	Common knapweed (<i>Centaurea nigra</i>)	***	XXX
	Field scabious (<i>Knautia arvensis</i>)	***	X
	Lady’s bedstraw (<i>Galium verum</i>)	*	XXX
	Musk-mallow (<i>Malva moschata</i>)	***	X
	Oxeye daisy (<i>Leucanthemum vulgare</i>)	***	XX
	Ragwort (<i>Senecio jacobaea</i>)	***	XXX



Sowing wildflower seeds on road verges

Keeping the wild in wild flower

It's important to be mindful of the need to keep the wild in wild flower. Planting generic mixes of wildflower seed does little to conserve wild flowers and can threaten the distinctiveness of natural local flora. Instead, simply cutting less and later will give native plants the opportunity to flower and set seed. Given the chance to spread, wild flowers often reappear on verges naturally. If verges have been neglected for a long time and are devoid of wildflower species, it may be worth restoring the habitat with locally sourced wildflower seed or green hay. More information on creating species-rich verges can be found in our technical guidance – *Managing Grassland Road Verges: a best practice guide* – and advice on local provenance seeding is available in Plantlife's *Keeping the Wild in Wildflower*.



Yellow rattle nature's own lawnmower

Sowing yellow rattle seed in a verge can be a useful management tool. Yellow rattle is a semi-parasitic annual plant – once it establishes, it draws water and nutrients from grasses growing around it and can reduce grass growth by up to 60%. It opens up the grass sward, creating room for other flowers to grow. With less grass growth each year, the need to remove clippings is reduced. So it's a win-win situation!

Seed collected from as local a source as possible can be sown in late summer, after the first cut of grass has taken place and the verge has been scarified. Once a verge has been sown with yellow rattle, no more work should be needed; it will spread as long as the verge is not cut until after the seed has been set.

Yellow rattle (*Rhinanthus minor*)
Illustration by Andrew Evans

Your questions answered

***The Good Verge Guide* is designed to be your go-to guide for making your local verges wildlife friendly. Here, we have collated answers to the most frequently asked questions and share our top tips for making an impact and being a verge advocate in your local area**

Who manages the verges near me?

The Strategic Road Network (SRN) – motorways and major A roads – is managed by Highways England, the North and Mid Wales Trunk Road Agent and the South Wales Trunk Road Agent, Transport Scotland and Northern Ireland’s Department for Infrastructure. Away from the SRN, County and Metropolitan District councils are normally responsible for verges in their area, although some C roads and unclassified roads are delegated to the local District, Parish or Community Councils. In your area, you will have a council that has been designated the Highway Authority. Often this will be a county or city council. They may delegate the work to others – for example, to your parish council or to local contractors – but they remain the Highway Authority with legal responsibility for looking after your roads.

Are there any laws that protect road verges?

Road verges are not afforded any legal protection in the UK. The way they are managed is entirely down to their owners and those authorities charged with their maintenance and upkeep. This means that there is no control of the way verges are managed. The only exception is where a specially protected species – one listed under Schedule 8 of the Wildlife & Countryside Act 1981 – grows on a verge. This includes plants such as lizard orchid, Deptford pink and meadow clary. Such species cannot legally be ‘destroyed’ if they grow on a verge or any other habitat.

Will it cost more money to adopt these guidelines?

Our basic advice is to cut less (only once or twice per year) and to change the timing of cutting from spring to late summer or autumn. If you’re currently cutting verges three or more times a year, you are likely to save money by reducing the number of cuts.

Sometimes extra funds will be needed to restore wild flowers to verges that have been mismanaged for a long time or to buy new machinery, but these costs can be recouped in the medium to long term once more efficient management is in place.

Further details on costs for better verge management projects can be found in the case studies in our technical guidance, *Managing Grassland Road Verges: a best practice guide* and on the Plantlife website.

Is collecting grass cuttings essential for better management?

Reducing the number of cuts and changing the timing of the cut is a great place to start. However, collecting grass cuttings makes a significant difference. It reduces the thick layer of thatch that builds up and prevents more delicate wild flowers from growing – only vigorous species can cope with it. It also returns nutrients to the soil, increasing fertility over time and encouraging more vigorous plants.

Collecting clippings (or ‘arisings’) can present a challenge due to budget, time or equipment constraints. However, there are exciting developments in cut-and-collect approaches being trialled by various councils and highways agencies, which are helping them save time and money.

It is worth considering that cut-and-collect might be an option on a smaller scale if there is an active community or volunteer programme. Clippings can be raked by hand and composted nearby. Several verge groups have had success managing their verges this way – you’ll find more information in case studies on the Plantlife website.

Your questions answered

What are Road Verge Nature Reserves and how can they help?

Valiant efforts have been made to protect some of the best remaining stretches of flower-rich verge. Locally, some councils and conservation groups – notably The Wildlife Trusts – have identified many Road Verge Nature Reserves (RVNRs, also known as Roadside Nature Reserves) to ensure good management. These can be spectacularly successful; many are still in superb condition after many years and are successfully protecting and enhancing wildlife.

However, management of RVNRs can lapse and diversity can be lost quickly, due to budget constraints and changes in contractors. This type of approach also places our attention on small stretches of verge, sometimes as little as 0.07% of the total road network in a county. With these sections under increased protection, it can foster a feeling that the rest of the verge network can be abandoned.

Only through improved management of the wider road verge network will substantial conservation gains be made, especially in terms of habitat connectivity and genuine benefits for plants, for the wildlife they support and for people. But well-managed, species-rich RVNRs can provide an excellent starting point for wider restoration of neighbouring verges.

What about invasive, competitive and ‘problem’ plants on verges?

Invasive, competitive and problem species can prevent some road verges from reaching their potential. Good management regimes will help to effectively control these species and should be considered as part of the restoration or enhanced management of verges.

While these species can dominate and cause problems, remember that they often have wildlife benefits as a food source, habitat or cover, and therefore their management is about balance not eradication.

Himalayan balsam with its explosive seeds has an effective dispersal mechanism. The best way to manage Himalayan balsam is by removing it before it has a chance to set seed.

Giant hogweed – it is important to note that giant hogweed contains an irritant chemical in its sap, which sensitises skin and leads to severe blistering when exposed to sunlight. For this reason, standard verge management that involves cutting would not be recommended. Specific and targeted herbicide on giant hogweed plants has been proven effective to control and eradicate this plant.

Common ragwort is a native plant with yellow, daisy-like flowers and is a natural component of many types of grassland. It supports many species including fungi and insects, but it is toxic to grazing animals. Good, careful management of verges will not encourage the spread of ragwort.

You can find more information on managing problem and competitive species in our technical guide, *Managing Grassland Road Verges: a best practice guide* and on the Plantlife website.

Your questions answered

Who can I contact about improving road verge management?

There are often several people in a local authority you can contact about verge management. There is the county ecologist (if your council employs one), the highways department and/or the councillor who manages the transport or environment portfolio. They all have statutory responsibilities to help conserve wildlife on the road verge. If you're setting up a group or want to make a difference on your doorstep, talk to your parish or town council. Often parishes, towns and even districts can decide whether they will fund extra cutting, so talking to the councillors to encourage cutting less and later can be effective. Do share these guidelines and our *Managing Grassland Road Verges: a best practice guide* with councillors and landowners.

What arguments can be used to help persuade decision makers to make verge management more wildlife friendly?

Climate change and carbon emissions: Many councils have declared climate emergencies, so implementing these guidelines will help to reduce carbon emissions through cutting less, and will create more diverse and resilient verge habitats that are better able to cope with climate change. We have estimated that if cutting all road verges in Britain was reduced from four times a year to twice a year, it would save over 30,000 tons of CO₂ emissions.

Biodiversity and pollinators: If we get the plants right, all other wildlife has a chance of thriving. Road verges are essential refuges for the wild flowers that support our wildlife and their value in the fight to conserve bees, butterflies and beetles cannot be underestimated. And remember, one mile of wildflower-rich verge can produce 20kg of nectar sugar per year, enough to feed millions of pollinating insects.

Benefits to wellbeing: Having a closer connection with nature has been shown to bring real improvements to our wellbeing. For many of us, a flash of colour on a road verge as we commute into work may be our only view of wildlife in our working day. Or, if we're lucky, a walk along a local lane might allow us to see cowslips or campions for the first time, a favourite clump of orchids or butterflies feeding from knapweed. These connections with nature are important and significantly boost our wellbeing.

Need to start somewhere: Overhauling management regimes can often take time due to contractual and logistical issues; we understand that and realise transformation won't happen overnight. **But don't be put off from starting somewhere;** perhaps trials of different approaches on easier parts of the network or in enthusiastic parishes or towns might be a good place to start.

Top tips on how you can make a difference

Many local verge, wildlife and biodiversity groups are forming in parishes, towns and cities around the country. They can provide a great opportunity to make a real difference at grassroots level.

- Consider **creating a volunteer or advocate group**, and deciding on a group name and logo, and perhaps a page or account on social media – search online for Wildflower Lewes, Verging on Wild, and Restoring Shropshire’s Verges Project for inspiration.
- **Communicate** to your fellow local residents what the group is about to spread the word – and be creative. Maybe leaflet to let people know, hold photo competitions to get them noticing the wild flowers on the verges or hold raking parties to encourage people to get involved in collecting arisings.
- **Get in touch** with your local elected representative, whether that’s your parish, town, district/borough or county councillors too, to tell them about your initiative and to ask for more wildlife-friendly management in your area.
- And **don’t forget the signs** – making signage to go on wildlife-friendly verges can act as a helpful reminder that verges aren’t being neglected, and can assist in tackling negative perceptions around ‘messy’ verges.



Extra resources

If you'd like to delve deeper into road verge management, here are some other resources that may be of interest to you:

Bromley, J., McCarthy, B., Shellswell, C. 2019. *Managing Grassland Road Verges: a best practice guide*. ISBN: 978-1-910212-87-5. <https://www.plantlife.org.uk/uk/our-work/publications/road-verge-management-guide>

Csergő, A.M., Demeter, L., Turkington, R. 2013. Declining Diversity in Abandoned Grasslands of the Carpathian Mountains: Do Dominant Species Matter? *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0073533>

Humbert, J-Y., Pellet, J., Buri, P., Arlettaz, R. 2012. Does delaying the first mowing date benefit biodiversity in meadowland? *Environmental Evidence*. 1(9). <https://doi.org/10.1186/2047-2382-1-9>

Parr, T.W., Way, J.M. 1988. Management of Roadside Vegetation: The Long-Term Effects of Cutting. *Journal of Applied Ecology*. 25 (3), pg.1073-1087. www.jstor.org/stable/2403767

Phillips, B.B., Bullock, J.M., Osborne, J.L., Gaston, K.J. 2019. Ecosystem service provision by road verges. *Journal of Applied Ecology*. 57, pg.488-501. 57: 488– 501. <https://doi.org/10.1111/1365-2664.13556>

Phillips, B.B., Wallace, C., Roberts, B.R., Whitehouse, A.T., Gaston, K.J., Bullock, J.M., Dicks, L.V., Osborne, J.L. 2020. Enhancing road verges to aid pollinator conservation: A review. *Biological Conservation*. 108687. <https://doi.org/10.1016/j.biocon.2020.108687>

Supporting you

We are keen to hear about local projects and want to create a network of verge advocates across the UK to build even more enthusiasm for wildflower-friendly verge management.

Visit the Plantlife website for more information, updates on projects in your area, inspiring case studies, and for advice and support from the Road Verge Campaign Team.





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Plantlife is a charitable company limited by guarantee,
Company No.3166339. Registered in England and Wales,
Charity No.1059559. Registered in Scotland, Charity No. SC038951.

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ISBN: 978-1-913283-03-2

Cover photograph: Andrew Evans

Design: evansgraphic.co.uk

We are Plantlife

For 30 years, Plantlife has had a single ideal – to save and celebrate wild flowers, plants and fungi. They are the life support for all our wildlife and their colour and character light up our landscapes. But without our help, this priceless natural heritage is in danger of being lost.

From the open spaces of our nature reserves to the corridors of government, we work nationally and internationally to raise their profile, celebrate their beauty and protect their future.

**Join us in enjoying the very best
that nature has to offer**

Where wild flowers lead... wildlife follows

