

ROAD VERGE MANAGEMENT IN POWYS

Road verges and wildflowers - a delicate balancing act

There are approximately 5,500 km of surfaced roads in Powys and road verges, often termed the 'soft estate', form a significant part of the highways network. The soft estate comprises all areas of land lying between the edge of the tarmac road surface and the boundary of neighbouring land, including ditches and drains. Verges provide valuable habitat for many kinds of wildlife and are highly valued both for their sheer diversity of flowering plants and the visual impact they create. Powys County Council as the local highway authority is responsible for their management to ensure the carriageway remains open and safe to use by everyone whilst taking into account their considerable wildlife value. Trunk roads are the responsibility of Welsh Government and are managed by the two Trunk Road Agencies that cover Wales. Powys County Council currently undertakes the management of trunk road verges as instructed by the North and Mid-Wales Trunk Road Agency.

In the good old days...

In the first half of the 20th century, much of the countryside was much less intensively managed and hay meadows were common. As the farmers took an annual hay crop in summer, 'lengthsmen' would also take a crop from the neighbouring verges. Many UK verges were also grazed by livestock. This type of management suits the needs of many wildflower species and the diversity of our meadows and verges flourished.



...the situation today.

Increased emphasis on livestock production in the second half of last century resulted in traditional meadows being replaced with more productive pastures. Today verges often remain as the last vestiges of species-rich grassland and the pressure on their conservation is considerable but their management has also changed. The advent of flail mowers, which are quicker and more cost-effective than hand cutting, mean that the cuttings or 'arisings' are left on site. The resulting mulch suppresses the growth of some native wildflowers leading to a loss in overall plant diversity. Diversity also declines as nutrient levels in the soil increase through runoff from surrounding land and atmospheric deposition. Vigorous, coarser species, such as hogweed, dock and nettle, thrive in these conditions at the expense of many other native wildflowers.



Why can't we go back to the management of 'the good old days'?

Many verges would almost certainly benefit from returning to 'traditional' management, i.e. a summer cut with the arisings removed. However, increased traffic volume and speeds pose a significant safety risk to both those working on verges and road users, for instance when cuttings are being raked off. Prolonged verge working usually requires the use of traffic control resulting in reduced traffic flow and increased congestion. Use of grazing animals is also impractical for the same reasons, in addition to the undesirable presence of vehicle pollution and litter.

It is possible to use large-scale cut-and-collect machinery on some verges but disposal of cuttings is problematic. Currently, the number of appropriately licensed, sustainable composting or other disposal sites is insufficient and there are considerable costs incurred in transporting material to sites, payment for disposal and securing the required environmental standards for use of the final product as compost, agricultural soil improver, etc. Any material used as animal fodder would also have to reach an acceptable quality and be free from potentially harmful substances. All this is potentially achievable but it is unlikely to happen without sufficient time and resources being available for development of a practical, cost-effective scheme.

Why cut road verges at all?

The County Council has to balance the need to conserve remaining species-rich areas (and preferably increase them) with managing fast growing vegetation and preserving safe access and use of the highway itself (including access to ditches, drains and other structures). Vegetation type and growth varies from area to area but generally many verges today have summer vegetation of sufficient height to reduce forward visibility markedly on bends and hills. In certain places vegetation also flops out into the



carriageway, particularly after rain, obscuring the edges of the road and reducing the width of the carriageway. This can be especially problematic for cyclists and pedestrians. Vegetation growing outwards on hedgebanks along narrow lanes can also significantly reduce the accessible width of the carriageway. It's also worth remembering that without some degree of regular cutting on all verges brambles, gorse, bracken and tree saplings soon begin to establish and the grassland habitat is lost as over time it naturally evolves into woodland.

Why not wait until wildflowers have finished flowering?

Plants typically put on most growth during spring and early summer. The precise date that cutting starts depends on the start of the growth season and can vary by two or three weeks between years. The earliest cutting is targeted at areas within the county where spring growth is most vigorous and major roads are targeted first. Delaying cutting in some areas can cause the problems described above meaning that cutting just before or during the flowering period is sometimes unavoidable. This is not a complete disaster for all wildflowers as many meadow plants can flower at a reduced height later in the season. Many meadow plants are also perennial (flowering each year) meaning that as long as a proportion can set seed every few years the population will survive. However, for annual

plants (growing and flowering for one year only) that only grow from seed shed the previous year, a reduction in number over time is likely. Interestingly, recent research also indicates that delaying cutting until very late summer rather than earlier may well result in a decline in plant diversity, which is converse to common conservation practice. Some other implications of delaying cutting include

- Restricting cutting to a much shorter period in the summer requires more machinery and manpower to cover the network, leading to increased costs.
- Later cutting of taller, denser vegetation in late summer takes longer to cut than short grass and so may also have notable cost implications.
- Later cutting results on a coarser mulch on the verge.
- Some very diverse verges also have species of flowers blooming from early spring right through until late summer meaning it's difficult to find a 'right-time' to cut!

What about the bees and butterflies?

While it is not practical to leave all verges uncut until late summer we can identify the flower-rich areas that will benefit a range of pollinating insects and protect these as Road Verge Nature Reserves (RVNRs). We can also try to identify which verges may only require cutting every two or three years because the plant growth rate is very slow and soils are poorer. It's also important to recognise that although road verges play an important part in supporting insects, on their own they cannot compensate for the large-scale loss of flower-rich meadows and grasslands. It isn't feasible to conserve all our verges as the main source for pollinators, particularly given the constraints to suitable management, although they play a significant part. Everyone has a role to play in restoring and creating additional suitable habitat on their own land.

How do we conserve the remaining flower-rich verges?

There will be areas within the county where cutting can be delayed without causing significant visibility and safety concerns. The problem is identifying which parts of the huge road network this applies to! It's unlikely to apply to a single road for its entire length (apart from some upland sites) but to intermittent stretches here and there. Resource constraints mean that prescriptive management is prioritised to verges identified as being botanically important or of a particular value to a local community. Botanically important verges (or those important for other wildlife such as glow-worms) that meet specified criteria and pose no significant visibility or safety concerns are managed as Road Verge Nature Reserves (RVNRs). Locally important verges are those that support protected and nationally and/or locally important plant species and/or support a particularly diverse range of plant species (including grasses, sedges, rushes and ferns). There are currently over 100 RVNRs across Powys managed by the County Council in partnership with the three Powys Wildlife Trusts.



A Road Verge Nature Reserve along a Powys trunk road.

How do I get a road verge near me designated as a Road Verge Nature Reserve?

We keep our system of RVNRs under constant review and are always happy to consider adopting new sites. If you know of a road verge that may qualify as a RVNR you can request a survey (to be done in the spring or summer) by contacting the County Council's Biodiversity Officer (see 'Contact details' below). We also have several RVNRs designated for interesting fungi, mosses and lichens they support. Appropriate surveys for these can also be arranged.

Contact details

General enquiries about verge maintenance	<p><u>Local Environment teams</u> (0845) 602 7035 highways.and.waste@powys.gov.uk</p>
Report a potential Road Verge Nature Reserve or request more information on RVNRs.	<p>County Council Ecologist (01597) 826939 biodiversity@powys.gov.uk</p>
Become a volunteer RVNR warden.	<p>Brecknock Wildlife Trust 01874 625708 enquiries@brecknockwildlifetrust.org.uk</p> <p>Radnorshire Wildlife Trust 01597 823298 info@rwtwales.org</p> <p>Montgomeryshire Wildlife Trust 01938 555654 info@montwt.co.uk</p>