



REVISED PLAN FEBRUARY 2015

ROADSIDE VERGES

1. INTRODUCTION

Roadside verges are defined as the strips of land between the road surface and the boundary line (i.e. the adjacent hedge, fence or hard development). The principal habitat for consideration in this action plan is grassland and tall herb vegetation and areas of geological interest. Boundary habitats such as ditches and hedgerows can add to the verge's ecological value. The plant communities often reflect the underlying geology so the associated Habitat Action Plans (HAPs) for neutral, acid and calcareous grasslands are key references.



Southam By-pass
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Most valuable for wildlife are usually wide verges on less fertile soils, where management has been sympathetic, or on 'new' road schemes where topsoil has been removed and sub-soil allowed to re-vegetate naturally. Any rough grassland associated with this habitat would be valuable for barn owls.

Road verges in cuttings can often be substantial features supporting extensive areas of flower-rich grassland and scrub (e.g. sections of the M6, M40, A46, A45, the Ettington by-pass and Southam by-pass) and the warmer, south-facing slopes can support important butterfly assemblages. The majority of the verges in Warwickshire, Coventry and Solihull are managed by regular mowing and hedge trimming.

With the considerable loss of unimproved grassland in post-war years, roadside verges now provide an important remnant habitat for many plants (700 plant species could be associated with verges nationally), birds, mammals and invertebrates. Typical flowers found on verges include: umbellifers such as cow parsley (*Anthriscus sylvestris*); common knapweed (*Centaurea nigra*), oxeye daisy (*Leucanthemum vulgare*), lady's bedstraw (*Galium verum*) and buttercups (*Ranunculous spp.*). One road verge has Warwickshire's largest population of common rockrose (*Helianthemum mumularium*), pyramidal orchid (*Anacamptis pyramidalis*) and a good population of the regionally scarce brown argus butterfly (*Arcia agestis*) which feeds on the rockrose. A section of the Fosseway at Tredington in South Warwickshire is noted for its population of bee orchid (*Ophrys apifera*) and the rarer wasp orchid (*var. trollii*).

Road verges are subject to a variety of stresses imposed by passing road traffic including salt spray, oil and other petrochemicals, lead and other air pollutants, and effects of vehicle movement actually on the verge. They are also under threat from rubbish dumping and management that is insensitive to nature conservation. An added stress is the right of utilities to lay and access their equipment in verge areas. Indeed they are encouraged to place their equipment in verge areas, rather than carriageways or footways. This does not just have an effect when the excavations take place but also in the 'static' laid condition.

Verges are also used by pedestrians and equestrians and this can require intervention to remove vegetation or install signposts.

Road verges contribute enormously to the attractive rural character of Warwickshire and are important in sustaining tourism. Spring blossoming shrubs in the hedgerows and good shows of flowers such as lady's bedstraw, common knapweed, wild carrot (*Daucus carota*), common bird's foot trefoil (*Lotus corniculatus*), agrimony (*Agrimonia eupatoria* xxx) and field scabious (*Knautia arvensis*) create a strong positive impression to visitors as well as pleasing local people. Verges are also important as corridors for wildlife particularly in areas of intensive agriculture.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Lowland Grassland (all types)', 'Hedgerows', 'Small Blue', 'Dingy Skipper', 'Chalk Carpet', 'Rare Bumblebees', 'Bloody-nosed Beetle' and 'Scarce Arable Plants'		
PLEASE CONSULT THE '<i>GENERIC HABITATS</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL HABITAT PLANS		
A.	To improve the condition of existing roadside biodiversity.	ongoing
B.	To expand the extent of verges of value for biodiversity.	ongoing

3. NATIONAL BAP OBJECTIVES & TARGETS

Although there are no specific national objectives or targets associated with roadside verges there are several UK Habitat and Species Biodiversity Action Plans (BAPs) ([Joint Nature Conservation Committee](#), 2007) which relate to this habitat, descriptions of which may be seen on line:

- UK [Hedgerows](#) BAP
- UK [Lowland Dry Acid Grassland](#) BAP
- UK [Lowland Calcareous Grassland](#) BAP
- UK [Lowland Meadows](#) BAP

In 2000, the Highways Agency published '[Strategic Roads 2010](#) — The Highways Agency 10 Year National Roads Strategy' - a response to the [Government's 10 Year Plan for Transport 2000](#), in which it set targets to 'manage the core Highway Agency road network in line with BAPs related to Trunk Roads and Motorways', (that is only the network that they have responsibility for), and to manage the network 'in line with comprehensive Environment Management Plans'. This emphasises the commitment within the Agency to manage road verges for biodiversity across the entire network. In 2002 the Agency produced its own [Biodiversity Action Plan](#). In addition, the [Countryside and Rights of Way \(CRoW\) Act 2000](#) places a duty on government departments to have regard to the purpose of conserving biodiversity. The [Highways Agency produced its own Biodiversity Action Plan](#) in 2002.

4. CURRENT STATUS

New motorways and government-led road schemes are required to provide habitat creation on roadside verges. Other than this, very few verges in Warwickshire, Coventry and Solihull are at present managed with conservation as the priority.

A number of verges in the sub-region were recorded as of being of conservation importance in an Institute of Terrestrial Ecology Study from 1969 entitled '[Roadside Verges of Conservation Importance in Britain](#)'. By 1995 many of the protected verges on the list remained, although kerbing, pipe trench work and roadwork had damaged some. Lack of mowing had also reduced the quality of some of the verges.

In 1994, all verges designated during the 1980s (in the south of Warwickshire) were re-assessed. A schedule of new sites was produced and management recommendations were provided for all verges in the Southern Division (essentially Stratford district). In 1996, a field survey was undertaken by [Warwickshire Museum Field Services](#) specifically in the Henley Division of Highways Maintenance, which looked at known sites designated as of conservation importance in the 1994 report. 16 sites were classed as between parish and county importance and management prescriptions were drawn up.

In 2014 the [Highways Agency](#) network in the sub-region (i.e. motorways and major trunk roads) supports 50+ breeding pairs of kestrels (*Falco tinnunculus*) and the associated food chain below them, including field vole (*Microtus agrestis*), wood mice (*Apodemus sylvaticus*), yellow-necked mice (*A.flavicollis*), and common shrew (*Sorex araneus*). There are good populations of reptiles in roadside habitats, particularly grass snake (*Natrix natrix*), adder (*Vipera berus*), slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*). The motorway and all-purpose trunk road flora in the sub-region includes several species of orchid.

- **Local Wildlife Sites (LWS)** - the Local Wildlife Sites Project (LWSP) for Warwickshire, Coventry and Solihull has a category for Roadside Verges and as at 2015 has designated the following verges:

LWS Site name	Length km
Binton Road Verge B439	0.87
Pillerton Priors Road Verge	2.93
Lower Norton Road Verge	0.42
Tredington Fosse Way Road Verge A429	6.33
Southam Bypass Cutting A423	1.08
Abbots Morton Road Verge	7.60
Chesterton Hill Road Verge B4100	0.40
Hatton Park Grassland	8.0
Total Length	27.63

There are 45 additional roadside verges identified as 'potential' LWS.

- **Phase 1 Habitat Survey** - In addition to road verges identified as local wildlife sites, the Phase 1 habitat survey for the Warwickshire sub-region also records sections of road verges that are of floristic interest. These will typically be identified as semi-improved

grassland. As at 2014 the number of flora rich roadside verges recorded in the Phase 1 survey has not been determined. This remains an untapped source of information.

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#)(1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through [Sites of Special Scientific Interest](#) (SSSI), [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through LWS status Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species. Road verges can also be the location of statutorily protected species such as the badger.

Roads and road verges are managed by the relevant designated highway authority in England under the [Highways Act 1980](#); national roads including motorways and trunk A roads are managed by the Highways Agency. County roads in rural areas are usually managed by the relevant local authority that has been designated as the highway authority. In addition local parish councils may undertake additional verge cutting within communities under delegated schemes.

In addition the Countryside and Rights of Way Act 2002 places a duty on government departments to have regard to the purpose of conserving biodiversity in England. The [Countryside Access and Rights of Way Improvement Plan](#) contains measures for improving verges for highway use by non-motorised users.

The Highway Authority may grant licences for the planting of trees and shrubs in the highway, including within the verges [Section 142 Highways Act (HA)] but not within 4.8 metres of the centre line of a made up carriageway [Sec 141 HA]. Planting in verges has to meet highway safety criteria. In rural areas, landowners on either side of a carriageway who own the subsoil rights up to the centre line of the road are responsible for verge maintenance. However, ownership of subsoil rights is not confined to rural areas and neither does it apply to all adjoining landowners in rural areas.

The management of the hedgerow and any trees growing alongside road verges are the responsibility of the adjoining landowner, and not of the Highways Authority or Highways Agency. The landowners may also be responsible for trees further into the highway area, if licences have been granted. Many of the hedgerows adjacent to roads would be considered "important" under the [Hedgerow Regulations 1997](#) and owners need to be aware of this. Ditch clearance may also be the responsibility of the adjoining landowner.

4.2 Current Factors Affecting the Habitat

Traditionally, roadside verges were managed either by taking off a hay crop or by grazing. The older and less disturbed verges are often remnants of species-rich grassland. Many important grassland verges in the county are old drovers' roads, the verges being wide to provide grazing for animals. These verges tend to be more important for wildlife because of less intense management and the absence of chemical-usage. Some modern roadside verges (those that have come about in the last 30 years or so) may be of less wildlife value, but do offer potential for habitat creation and enhancement, particularly where natural revegetation over subsoil is permitted.

In recent years roadside management has been limited to safety requirements, mainly for the reason of maintaining visibility, often with only a late September cut. The herbage is often not removed following cutting, thereby adding excess nutrients and resulting in many verges becoming overgrown with coarse grasses, docks and thistles. Longer neglect or only partial cutting can result in scrub encroachment.

As an example, at Wellesbourne, WCC has applied its standard policy of maintaining a metre swathe, plus visibility, along the verges by cutting three times a year. However, the remainder of the verges are cut twice at the appropriate time. This results in the arisings being less dense and has reduced the amount of thatch. Moreover, it has not affected the diversity of wild flowers.

Activities affecting the habitat quality of roadside verges are:

- **construction** including road widening schemes, hard surfaces for footpaths and cycle paths, cable and pipe laying activities, addition of top soil which encourages ranker vegetation.
- **parking / erosion / over-running** is limited in effect, but where it occurs it can lead to a complete loss of vegetation.
- **pesticide and herbicide use and drift** in areas of intensive agriculture can cause the loss of wildflowers and insects reducing the value of the verges for other wildlife such as birds and butterflies; in particular the effect of systemic [neonicotinoids](#) on pollinating insects, is causing great concern.
- **invasive species** including garden escapes such as variegated archangel (*Lamiastrum galeobdolon subsp. argentatum*), some ragworts (*Senecio spp.*), thistles (*Cirsium spp.*), Japanese Knotweed (*Fallopia japonica*) and docks (*Rumex spp.*), are included on the [Weeds Act 1959](#) and ought to be controlled from spreading from road verges to adjacent land holdings by land owners. However ragworts and thistles can be highly valuable components of a verge, substantially boosting their value for insects and birds especially in impoverished landscapes.
- **winter road salt application** can reach the verges through spray and run-off. Most plants are very intolerant of salty conditions and are either killed or have their growth impeded. Some salt tolerant plants have started to establish along roadsides in some areas, e.g. Danish scurvy grass (*Cochlearia danica*)

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- **vehicular pollution** - although lead is no longer a pollutant from traffic, residual levels in the verge soil (up to 2m from the carriageway edge) may be a factor in degrading conditions for plants in the immediate verge.
- **excessive mowing**, particularly by some private individuals, resulting in species-poor lawns and an inability of many plants to flower. The 'tidy mind' approach is not appropriate along rural road verges.
- **inappropriate planting** by local residents and parish councils of non-native species including nursery grown garden plants. Shaping the views of local residents is crucial to ensure that there is a full understanding of the value of verges as a wildlife resource.
- **ditch clearing** where the ditch diggings are put on the verge side contributing to the build-up of nutrients and creating the rank grasslands and tall ruderal verges consisting of common nettle, creeping thistle and hogweed.
- **road side hedge cutting**, especially when carried out in the wettest of weather. Tractors have increased enormously in size and weight over the past decades which causes deep rutting along the same line, leaving the area very difficult and hazardous to manage.

4.3 Management Guiding Principles

An appropriate management plan for individual road verges to maintain species and flower rich open habitats, including schedule of work to be carried out on a regular basis and restoration plan for disturbance due to construction work. The plan should incorporate the following:

- **maintaining low nutrient levels:** including the collection and removal of arisings and ditch clearings to prevent the build-up of nutrients
- **infrequent mowing:** where a verge cannot be cut annually, it may be possible to maintain its wild flower interest by cutting every other year. In these circumstances removal of cuttings is essential.
- **bare ground:** creating disturbed areas by removing thatch of vegetation and exposing underlying soils and rock to create areas of disturbance for seeds to germinate particularly annual flowering plants such as poppies
- **pesticides:** wherever possible minimise or eliminate use of pesticides
- **rare species:** where a verge has a species of special interest specialist advice should be sought regarding the most appropriate management
- **scrub and woodlands:** on larger verges or those with hedgerows the retention of woodland and scrub should be retained. They should be managed by cutting on a rotation of up to 10 years

5. LOCAL ACTION

- Mowing and hedge trimming is carried out by various parties, including the highway authorities, local authorities and local farmers, often with contractors. In most areas this is restricted to safety mowing, three times a year.
- Management plans
 - Warwickshire County Council Ecological Services has produced verge management plans for Ettington Cutting and Tredington Fosse Way LWS (2014).
 - A management plan for the Princethorpe Woodlands Project is being produced (2015)
- Parish projects:
 - Weston under Wetherley – verge management project by the Parish Council since 2013.
 - [Oxhill Wildlife Society](#) – sympathetic management of some road verges around the village, assisted by local residents: Gilkes Lane has been left uncut for some years now, with some planting of wild flowers, resulting in an increase in butterflies and bees; one wide verge in Green Lane and a strip of one small garden in Main Street have also been planted; Beech Road has wild flowers along both sides for most of its length with a new area abutting the fence/hedge next to Blackford Way.
- [Stour Valley Wildlife Action Group](#) (SVWAG)
 - Scrub clearing and maintenance of 4 LWS along the Fosse Way (A429): Tredington adjacent to the island, Tredington road cutting, Ettington road cutting and Stretton on Fosse, north from the old Golden Cross. With limited resources and manpower, sites in most need of clearing take priority; however, some local landowners have removed brash onto their land for disposal. The local Highways Manager informs the group of imminent cutting of sensitive areas at Ettington island, allowing the marking of individual plants with pegs so they are left uncut. Yellow rattle (*Rhinanthus minor*) is being used on the splitters at Ettington to reduce the taller grasses, hopefully lowering the number of safety cuts needed. Unfortunately Tredington island has not been cut for a couple of years, despite the negotiation of a more sympathetic cutting regime; the site has been missed out although the safety margin cut has been done (2015).
 - Monitoring of verge condition at Pillerton Priors LWS and the layby adjacent to the substation at Portobello. The protection of meadow clary (*Salvia pratensis*) and other important plants has been achieved by liaising with Highways over cutting times and peg marking when cutting has to be done.
- [Butterfly Conservation Warwickshire](#) has given feedback to Rugby Borough Council since 2012, with suggestions for verge management on the A45 roundabout.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE 'GENERIC HABITATS' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL HABITAT PLANS			
Policy, Legislation & Protection			
PL1. Continue to identify and select all qualifying verges as LWSs and enter onto database.	LWSP	WCC HBA LAs	ongoing
PL2. Encourage the incorporation of habitat creation into new road building / widening schemes wherever feasible to increase the extent of the resource.	WCC	HAg LAs	ongoing
PL3. Include reference to enhancing the biodiversity value of roadside verges and hedgerows within LA biodiversity policies.	WCC	WWT PCs LAs	ongoing
PL4. Include an environmental statement within Neighbourhood Plans for the conservation of biodiversity on parish roadside verges	WCC	HBA PCs LAs	ongoing
Site / Species Safeguard & Management			
SM1. Produce management plans for all currently designated LWS.	WCC	HBA PCs LAs LOs	ongoing
SM2. Produce management guidelines to maximise the wildlife value of the verges, including the monitoring process, in partnership with the Highways Authorities and other managing organisations.	WCC	WWT WBRC LOs PCs LAs	ongoing
SM3. Implement management plans for LWS and manage other sites to improve their condition, including re-seeding, introduction of yellow rattle, removal of arisings, and controlled timing of cuts.	WCC	WWT LAs BC LOs	ongoing
Advisory			
A1. Produce work specifications for contractors working on verges to cover working techniques, environmental impact assessment, mitigation and reinstatement.	WCC	PCs	2015
Research & Monitoring			
RM1. Revisit designated verges and assess their current condition, on a 5 year rolling programme.	LWSP	WWT WBRC WFG HBA	2015-2020

ACTION	Lead	Partners	By
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		SVWAG	
RM2. Survey suitable verges for LWS status or as interim sites of importance as potential LWS.	LWSP	HBA LAs WFG SVWAG	ongoing
RM3. Monitor the success of management plans for LWS on a biennial basis.	WCC	WWT HBA WBRC LAs SVWAG	ongoing
RM4. Explore opportunities for projects relating to verge maintenance and restoration.	WBRC	NE WWT HBA LAs Unis	2017
Communications and Publicity			
CP1. Establish a road verges monitoring group involving local communities and wildlife groups.	WWT	HBA BC SVWAG PCs	2015
CP2. Investigate the possibility of a 'Best Roadside Verge Management for Wildlife' competition with parishes and other relevant bodies.	CSG	HBA BC SVWAG PCs Cemex	2016

Abbreviations: BC – Butterfly Conservation, CSG – LBAP Core Steering Group, HAg – Highways Agency, HBA – Habitat Biodiversity Audit partnership, LAs – Local Authorities, LOs – Landowners, LWSP – Local Wildlife Sites Project, NE – Natural England, PCs – Parish Councils, SVWAG – Stour Valley Wildlife Action Group, Unis – Universities, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WFG – Warwickshire Flora Group, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Results will be entered onto the national Biodiversity Action Reporting System [BARS](#). Progress with this plan up to 2008 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

8. BIBLIOGRAPHY

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Falk, S.J. (2009) [Warwickshire's Wildflowers](#) - provides habitat-specific species lists, and explanations of habitats from a botanical viewpoint.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

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Harvey, R. (2014) [Treddington Fosse Way Bypass Management Plan](#) Ecological services, Warwickshire County Council

DEFRA (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

RSPB (2013) State of Nature – a stocktake of all our native wildlife by 25 wildlife organisations.

[Task Force on Systemic Pesticides](#) (2014) – the response of the scientific community to concern about the impact of systemic pesticides on biodiversity and ecosystems.

Defra (2014) [National Pollinator Strategy](#) – a 10 year shared plan of action between voluntary, business and public sector organisations to deliver across 5 areas of concern.

9. FURTHER INFORMATION

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 ([JNCC](#)) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

[Biodiversity Planning Toolkit](#) - a new online resource to help incorporate biodiversity and geodiversity into the planning system and new development.

Highways Agency & Natural England (2006). [The Butterfly Handbook](#) – how projects can be adapted to reduce adverse impacts on, and provide benefits for, butterflies (available online).

[Staffordshire Biodiversity Action Plan](#): Biodiversity Officer (01889 880100)

[Living Highways Project](#): Michelle Delafield, Project Officer, Brecknock Wildlife Trust, Lion House, Bethel Square, Brecon, Powys LD3 7AY. Tel. 01874 625708

[Flora Locale](#) – promotes the restoration of wild plants and habitats for the benefit of biodiversity, landscapes and people in town and countryside.

[Plantlife](#) - a charity which carries out plant species and habitat conservation, owns and manages nature reserves, campaigns, and raises awareness through

education. Its new campaign fronted by Alan Titchmarsh for people to sign up to become 'Road Verge Warriors' and petition their local authorities can be viewed at: www.plantlife.org.uk/roadvergecampaign.

10. CONTACTS

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