



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. However, there can also be many other habitats here including ponds, woodlands and areas of geological interest. Boundary habitats such as ditches and hedgerows can add to the verge's ecological value. The plant



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communities often reflect the underlying geology – so the associated Habitat Action Plans (HAPs) for neutral and calcareous grasslands are key references. The most valuable verges for wildlife are usually wide ones on less fertile soils, where management has been sympathetic, or on 'new' road schemes where topsoil has been removed and sub-soil allowed to revegetate naturally. 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 massive loss of unimproved grassland in post-war years, roadside verges now provide an important habitat for plants (700 plant species could be associated with verges nationally), birds, mammals and invertebrates. Typical flowers found on verges include umbellifers like hogweed, vetches, bedstraws and knapweeds. One road verge has Warwickshire's largest population of rockrose, pyramidal orchid and a good population of the regionally scarce brown argus butterfly which feeds on the rockrose. Verges are also important as corridors for wildlife particularly in areas of intensive agriculture such as the Feldon, and can provide good linkages to conservation headlands which are increasing with the advent of Environmental Stewardship.

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 and good shows of flowers such as cow parsley, hogweed and buttercups create a strong positive impression to visitors as well as pleasing local people.

2.	OUR OBJECTIVES & TARGETS	Target
A.	To survey, designate and record all verges of ecological importance, having defined criteria for this.	2008
B.	To develop management guidelines for individual sites and proposals in partnership with the Highways Authorities and other managing organisations to maximise the wildlife value of the verges.	2009
C.	To increase the monitoring, maintain the extent of and improve the condition of roadside biodiversity.	review 2008
D.	To increase awareness of the ecological value of Roadsides.	ongoing

ASSOCIATED HABITAT PLANS

- Lowland Neutral Grassland
- Lowland Calcareous Grassland
- Lowland Heathland
- Lowland Acid Grassland
- Hedgerows
- Scrub & Carr
- Ponds, Lakes & Reservoirs
- The Built Environment
- Field Margins
- Woodlands

ASSOCIATED SPECIES PLANS

- Bats
- Farmland Birds
- Bloody-Nosed Beetle
- Barn Owl
- Dingy Skipper
- Black Poplar
- Scarce Arable Plants

3. NATIONAL BAP OBJECTIVES & TARGETS

Although there are no specific UK Biodiversity Action Plan (BAP) objectives or targets associated with roadside verges there are national HAPs and Species Action Plans (SAPs) which relate to this habitat. These are:

- *Ancient and/or species-rich hedgerows*
- *Lowland dry acid grassland*
- *Lowland calcareous grassland*
- *Lowland heathland*
- *Lowland meadows*
- *Scrub*

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, in which it set targets to 'manage the core Highway Agency road network in line

with BAPs related to Trunk Roads and Motorways', i.e. 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 addition, the Countryside and Rights of Way 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 managed with conservation as the priority.

A number of verges in the sub-region were recorded as of being of conservation importance in an ITE 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 of between parish and county importance and management prescriptions were drawn up.

The Highways Agency network in the sub-region (i.e. motorways and major trunk roads) support a significant number of kestrels (50+ breeding pairs) and the associated food chain below them including field voles, wood mice, yellow-necked mice and common shrews. There are good populations of reptiles in roadside habitats, particularly grass snakes, adders, slow worms and common lizards. The motorway and all-purpose trunk road flora in the sub-region includes several species of orchid.

4.1 Legal and Policy Status

There are many parish as well as county value ecosites which are road verges and some of these have been selected as potential Sites of Importance for Nature Conservation (pSINCs). These include Chesterton Road Verge, Binton Verge, Red Hill (A46), Little Alne Verge and Dean's Green Verge.

Road verges can also be the location of statutorily protected species such as the badger. In addition, many of the hedgerows adjacent to roads would be considered "important" under the Hedgerow Regulations 1997.

The designated Highway Authority (WCC, Coventry City Council or Solihull Metropolitan Borough Council) could hold ownership of land underneath verges, derived in a number of

different ways, and has a responsibility under the Highways Act for managing the roadside verge on all roads except motorways and trunk roads. 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 either side of a carriageway, in general, own the subsoil rights up to the centre line of the road. However, ownership of subsoil rights is not confined just to rural areas and neither does it apply to all adjoining landowners in rural areas. Ditch clearance may be the responsibility of the landowner. The management of the hedgerow and any trees growing there 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. Owners need to be aware of this with respect to Hedgerow Regulations.

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. Removing arisings can be costly and impractical.

There are a variety of other activities that affect the quality of roadside verges:

- **Use by non-motorised highway users.** Many routes form valuable links and a safe haven from traffic for recreation and utility non motorised users. Whilst it is often possible to manage those verges without formal surfacing, the requirement to keep the highway open for users will affect the way the habitat is managed.
- **Parking/erosion/over-running.** This 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.

- **Invasive species** such as some ragworts, thistles and docks are included on the Weeds Act 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. As an example, the County Highways policy is to respond to complaints about ragwort by clearing, mainly to reduce the potential of poisoning animals either grazing on adjacent land or passing along a highway. Within WCC Operation Ragwort involves hand-lifting and clearance on target sites. Japanese knotweed, another invasive plant, requires a specific control dependent on the Highway Authority's policy.
- **Road widening**
- **Construction of surfaced footways or cycle paths**
- **Conversion to footpath and cycle path**
- **Planting** - some parish councils, local authorities and individuals are planting exotic plants such as non-native daffodils into the verges. These can spread or smother existing native species.
- **Essential cable and pipe laying work by public utilities**
- **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, for example Danish scurvygrass
- **Funding** for management of roadside verges within WCC is currently limited to safety cutting. However, highway maintenance policy is being reviewed in 2005.
- **Excessive mowing**, particularly by some private individuals, resulting in species-poor lawns and an inability of many plants to flower.
- **Lead** is no longer a pollutant from traffic although 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
- **Public Perception** – 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. The 'tidy mind' approach is not appropriate along rural road verges.

5. CURRENT LOCAL ACTION

- There is a WCC objective to undertake any landscape enhancement on new / improved highway schemes that they are involved in by creating habitat for wildlife including species-rich grassland . Examples are at Wellesbourne and Bowshott Cross Roads at Red Hill on the Fosse. There are some concerns at both sites concerning highway safety.
- The Countryside Access and Rights of Way Improvement Plan contains measures for improving verges for highway use by non-motorised users.
- Mowing and hedge trimming is carried out by various parties, including the highway authorities, local authorities and local farmers, often with

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

contractors. In most areas this is restricted to safety mowing, three times a year.

- The reorganisation of County highway maintenance in 2003 provides Area Managers at Coleshill, Nuneaton, Rugby, Warwick and Wellesbourne, who are responsible for delivering the Authority's policy on highway verge maintenance.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By	Meets objective
Policy & Legislation				
PL1. Ensure that all relevant habitat policy is included in Local Planning Documents (see ODPM Planning Policy Statement PPS9).	LBAPSG	LAs	Govt review dates	A
PL2. Ensure that any site meeting the relevant criteria is considered for SINC designation.	WSP	LAs	2008	A
PL3. Encourage the incorporation of habitat creation into new road building / widening schemes wherever feasible to increase the extent of the resource.	LBAPSG	Hau NE WM LAs	Ongoing	C
PL4. Encourage the incorporation of habitat restoration into new road building / widening schemes wherever feasible.	LBAPSG	Hau NE WM LAs	Ongoing	C
PL5. Develop an agreement or code of practice for the management and maintenance of all road verges and roadside hedgerows.	LBAPSG	Hau WWT LAs	2010	B,C
Site / Species Safeguard & Management				
SM1. Survey known roadside verges of nature conservation value.	WSP	LAs WWT WCC	2008	A
SM2. Develop realistic and achievable management plans for areas identified in SM1.	WCC	Hau LAs WSP WWT	2008	B, C
SM3. Identify other valuable verges and species-rich roadside hedges through ongoing HBA work.	HBA	Hau LAs WWT WCC	2008	A

Advisory				
A1. In conjunction with other WCC teams, produce a leaflet promoting good management of verges targeting parish councils and landowners in particular.	LBAPSG	NE WCC LAs WWT	2007 onwards	B,C,D
A2. Produce work specifications for contractors working on verges to cover working techniques, environmental impact assessment, mitigation and reinstatement.	LBAPSG	HAu LAs	2007 onwards	B,C
Research & Monitoring				
RM1. Revisit designated verges and assess current condition .	WSP	WWT LAs	2008	A
RM2. Monitor success of management plans on a biennial basis.	WCC	WWT LAs WSP	2008	A
RM3. Monitor gains and losses in Local Biodiversity Action Plan species and habitats associated with roadside verges.	WBRC	LAs BC WWT NE Museums WMBC	Review 2008	C
RM4. Ensure that all designated roadside verges are recorded on GIS and made available to partners.	HBA		2006 onwards	A
Communication, Education & Publicity				
CP1. Investigate the provision of interpretative signs at important roadside verges either at lay-bys or finger posts and ensure that signs are appropriately designed, e.g. WCC's objectives encompassing the activities of all sections dealing with highway areas is to reduce clutter throughout the countryside.	WCC	HAu WWT LAs	2015	C, D
CP2. Establish a simple monitoring scheme to involve local communities in simple surveys of roadside habitats and species.	WWT	LA21 WM HBA	2010	C, D

Abbreviations: BC – Butterfly Conservation, NE – Natural England, GIS – Geographical Information Systems, HAu – Highways Authority, HBA – Habitat Biodiversity Audit, LA – Local Authority, LA21 – Local Agenda 21, LBAPSG – Local Biodiversity Action Plan Steering Group, SINC – Site of Importance for Nature Conservation, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WMBC - West Midlands Bird Club, WM - Warwickshire Museum, WSP – Wildlife Sites Project, WWT – Warwickshire Wildlife Trust.

7. REFERENCES (see also **LBAP Bibliography** web page)

Warwickshire Museum Field Services (1996) *Management Recommendations*

for Ecosite Road Verges – Henley Division.

8. FURTHER INFORMATION (see separate **Links** web page for links to web sites)

UK Urban Biodiversity Action Plan no. 754
UK Built-up Areas & Gardens Biodiversity Action Plan no. 62
UK Hedgerows Biodiversity Action Plan no.7
UK Lowland Dry Acid Grassland Biodiversity Action Plan no. 14
UK Lowland Calcareous Grassland Biodiversity Action Plan no. 12
UK Lowland Heathland Biodiversity Action Plan no. 15
UK Lowland Meadows Biodiversity Action Plan no. 10
Highways Agency Biodiversity Action Plan

Highways Agency & Natural England (2006) *The Butterfly Handbook – how projects can be adapted to reduce adverse impacts on, and provide benefits for, butterflies.* Log on www.highways.gov.uk/knowledge/documents/The_Butterfly_Handbook.pdf

Highways Authority c/o Warwickshire County Council, Shire Hall, Warwick CV34 4RA
Tel: 01926 410410

Staffordshire Biodiversity Action Plan: Biodiversity Officer (01889 880100)
email: jsmith@staffswt.cix.co.uk

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

Sue Everett (2007) *British wild plants for wildlife schemes.* British Wildlife, vol.18, no.3:161-168

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