20th September 2023
Historic England
Response to consultation on protecting hedgerows
Written submission via email

Consultation on protecting hedgerows: Ensuring continued protections for hedgerows after the end of cross compliance

Headlines

Historic England welcomes the opportunity to respond to the Department for Environment, Food and Rural Affairs' consultation on protecting hedgerows.

We note the intention to discontinue cross compliance and to revert to The Hedgerow Regulations 1997. However, current cross compliance rules under GAEC 7a Boundaries also apply to stone field boundaries (including so-called Cornish and Devon hedges) and field banks, not simply hedges comprising woody species.

In this context we note that The Hedgerow Regulations 1997 apply a much narrower definition and that – with the loss of cross compliance – the existing protection for other forms of hedge or field boundaries will be lost.

Given that the natural capital, landscape and heritage benefits of both hedges (as defined by The Hedgerow Regulations 1997) and other forms of hedge and field boundaries are largely the same – this is a concern to us.

It is in this context – and using the wider definition of hedges and field boundaries- that the following comments are made.

Historic Context

The importance of hedges to England's historic environment cannot be overstated. An iconic feature of English landscapes dating back millennia, hedges serve as a living reminder of how generations of rural communities have managed, cultivated and shaped the land around them. Hedges come in many forms, including hedgerow trees and scrub, but also include boundaries incorporating dry stone walls, stone and earth banks and associated features such as ditches. They are regionally and locally distinctive forms of hedges and field boundaries which are a key characteristic of rural landscapes.

The earliest evidence of hedges and boundaries, such as assart woodland and stone hedge establishment, date back to the Bronze Age, with both Roman and Anglo-Saxon settlers both subsequently utilising hedging techniques for border demarcation, animal husbandry, and crop establishment until "most of the Ancient Countryside was… fully hedged".[1] A prime example of ancient hedge establishment is located in Zennor, Cornwall. Utilised for crop production, these unique enclosed field parcels are around 2000-3000 years old and present some of the earliest field boundaries across the British Isles.

Likewise, in the Medieval period, and subsequent 16th and 17th centuries, existing hedge structures were strengthened, shaped and further established, with communities utilising hedgerow resources for food, fuel and shelter. The Enclosure Acts of the Eighteenth and Nineteenth centuries saw rapid

[1] Rackham, O. (2021) *The History of the Countryside*. George Weidenfeld & Nicholson.

expansion of hedgerow planting and wall establishment as a means of developing the countryside from open field systems to enclosed holdings and transitioning from arable to livestock production. Today hedgerow coverage stands at an estimated 500,000 miles and dry stone walls at 100,000 km^2, forming instantly recognisable signifiers of rurality and the English countryside to communities across the UK and beyond.

Environmental Value

With the escalation of efforts to undertake urgent climate action, natural capital accounting has come to the foreground. Hedgerows, and hedges by their broader definition, are enactors of a varied range of ecosystem services, underpinning both natural processes and land management practices. These are underpinned by supporting, provisioning, regulating and cultural services, the stocks and flows of which provide natural and heritage and cultural capital values to rural areas. These services are crucial to the Government's policy aim of achieving "public goods for public money" through the development of Environmental Land Management (ELM) scheme.

Hedges are vital natural, semi-natural and manmade structures that tackle harmful emissions, prevent the decline of nature, and bolster landscape character. Their ability to sequester carbon in their biomass, structure and in the surrounding soil, filter nutrients entering water courses, and bolster biodiversity is well established and accepted by generations of farmers and land managers. For example, research by the University of Leeds found that the top 50 cm of below ground soil beneath hedgerows stored on average 31% more carbon than intensively farmed grassland[2]. Further research indicates that older hedgerows can sequester over 60% more carbon than intensively farmed grassland[3]. Likewise, Powel et al. have demonstrated that walling stone represents an investment in carbon storage dating back millennia, both within the stone that has been conserved but also via the preservation of pasture[4]. As such, hedge maintenance can be a key means of achieving the Government's Net Zero carbon targets via hedgerow planting and carbon sequestration.

Linear boundaries can also play a key role to catchment sensitive farming by dispersing diffuse pollution in our air, water and soil. Hedges buffer water from agricultural activities, reducing the risk of nutrients, manure or slurry entering watercourses, as well as soil blow off. Through this they improve water quality. In urban and peri-urban areas, studies have shown hedges to mitigate the impact of harmful pollutants on pedestrians, residents, cyclists and other road users[5]. This sits alongside the added benefits of noise buffering. Furthermore, soils under and surrounding hedgerows have been found to have higher earthworm diversity, as well as hosting a higher

[2] *Sequestering soil carbon by planting hedgerows* (2023) *Priestley Centre for Climate Futures*. Available at: https://climate.leeds.ac.uk/net-zero/sequestering-soil-carbon-by-planting-hedgerows/ (Accessed: 04 September 2023).

[3] Biffi, S. *et al.* (2022) 'Soil carbon sequestration potential of planting hedgerows in agricultural landscapes', *J ournal of Environmental Management*, 307, doi:10.1016/

[4] Powell, J et al. (2018) "Developing an ecosystem approach - dry stone walls". *Research Report Series,* 43. Available from: https://eprints.glos.ac.uk/6468/

[5] Kumar, P et al. (2022) "Understanding the effects of roadside hedges on the horizontal and vertical distributions of air pollutants in street canyons. *Environment International* 158, 106883. Link: **https://doi.org/10.1016/j.envint.2021.106883**

concentration of beneficial microbial species and fungi compared to intensively farmed land[6]. This demonstrates how hedges can improve soil quality for pastoral and arable settings.

Nesting birds, the archetype of the countryside, are particularly dependent on hedgerows and hedgerow trees for shelter, food, protection from predators and breeding. Likewise, mammals such as hedgehogs, dormice and bats dwell in hedgerows and field boundaries- utilising these semi-natural features as either primary habitat or feeding sites. Larger species depend on the rich variety of insects, invertebrates and flora which also reside in hedges, or associated features such as ditches.

A multitude of native species also use hedgerows and hedges as travel corridors and pathways. These wildlife corridors improve the connectivity of continuous habitat allowing the movement of species that would otherwise be vulnerable in agricultural settings. Further, habitats networks allow the dispersal of species, allowing for genetic diversity and broader range of available habitat.

Hedges also slow the diffuse of rainwater entering rivers and streams acting as an effective hydrological flow control system, alleviating the extent of floods to nearby settlements and farmed land. Such hydrological systems have been established over centuries with farmers and land managers curating the structure of hedges in order to act as water storage banks and barriers to flood water.

Healthy crops require healthy pollinators and predators. The varied structures of hedgerow fauna create ideal habitat for pollinators, ensuring the propagation of crops, trees and wild flora. Pest control too is bolstered by the presence of healthy hedgerow trees and scrubs, with predators seeking out and controlling pest populations in nearby fields. Likewise, insects, reptiles, small mammals, birds, other species utilise walls and banks for habitat, alongside important flora such as lichens- which undertake nutrient recycling and contribute to air quality. Crop production depends upon these ecosystems service to sustain quality yields and is invariably bolstered by the presents of hedgerows and hedges.

Agricultural Value

Whilst their historical and cultural underpinnings, as well as associated romantic portrayals of landscape, have endured in the imaginings of authors and artists over the centuries, the role of hedges in the countryside remains a highly practical device of modern agriculture. Their placement within the countryside, diversifying agriculture and by extension bolstering ecological value, provides a living mosaic of boundary features vital for the establishment of field parcels. Historically, such borders are crucial for outlining ownership of land and remain key boundary features in the farmed landscape.

Likewise, their ability to provide shelter and shade to livestock and shockproof areas is invaluable to pastoral farming; hedges providing the additional benefit of protecting against the transmission of disease or the accidental mixing of breed varieties. Benefits also translate to arable farming, preventing the degradation of soil structures, soil blow and dispersion from runoff due to the diverse

[6] Holden, J. *et al.* (2019) 'The role of hedgerows in soil functioning within agricultural landscapes', *Agriculture, Ecosystems & Environment*, 273, pp. 1–12. doi:10.1016

root structures of established hedgerows and stone foundations of walls and banks. As previously indicated, the benefits to agricultural land in terms of soil quality and prevention of topsoil erosion are invaluable to both pastoral and arable farming.

Beyond the necessities of land management, laying of hedgerows and dry stone walls are heritage practices in their own right which should be protected amongst our greatest national treasures. Regional techniques of hedge and dry stone laying vary greatly from region to region, with counties having developed their unique methods of establishment and aesthetic nuisances over centuries. It is these distinct styles that are key signifies of landscape character, providing a regional individualism that signifies local crafts, folklore and practices.

Such semi-natural and constructed structures provide picturesque surrounding for communities to enjoy, benefiting wellbeing, sense of place and belonging. Beyond aesthetic value, each style has been honed to flourish in contrasting regional climates and typographies.

For example, predominantly used for stock control, Devon hedges are formed of earth banks, faced with stone or turf, and sometimes topped with densely packed hedgerow trees or scrub. In contrast, Yorkshire hedges are formed of thinly layered hedgerow trees and scrub, utilised in an arable/ sheep rotation- for arable use when the hedge is first established and latterly for stock control when fully established. Techniques for dry stone walls, and associated features such as stiles, Lunky Holes, Bee Boles, and Pens, vary greatly across the country, with prominence and unique attributes found in upland farmlands.

Works to establish, maintain and restore hedges provide the means of ensuring the longevity of intangible heritage crafts. Such knowledge, passed down through generations, has both a cultural and economic value. Demand for hedge laying in recent years has prompted a resurgence in rural craft businesses, within apprenticeships and educational courses available to the wider public. Their visibility in the landscape also forms a big part in encouraging millions of tourists to visit the countryside each year. Not only does this bolster economic growth in rural areas but it also ensures the durability of heritage crafts for future generations.

Threats

However, agricultural intensification and changes in land management practices over the centuries have threatened the role of hedges in our landscapes. Land clearance in the 20th century, in order to introduce intensive farming practices, is a prime example.

An estimated 4828 km^2 of hedgerows were removed per year subsequent to the Second World War[7]. In subsequent decades, those trends continued, albeit at a lesser rate, with the UKCEH Countryside Survey estimating a reduction in English hedgerows in the English countryside between 1984 and 2007 from 511,000km^2 to 402,000km^2[8][9]. Likewise, in the same period, the length of stone walls in the English countryside reduced by 16,000km[9]. Between 1984 and 1990, 10% of walls were lost due to removal or lack of appropriate management[10]. And studies such as *The Condition of England's Dry Stone Walls* (1996), identified a high proportion of England's wall stock is in a "very

[7] Pollard, E., Hooper, M.D. and Moore, N.W. (1979) *Hedges*. London: Collins.
[8] UKCEH (2007) *Countryside Survey: UK Results from 2007.* London. DEFRA
[9] UKCEH (2007) *Countryside Survey: UK Results from 2007.* London. DEFRA
[10] UKCEH (2000) *Accounting for nature: assessing habitats in the UK countryside: an overview*. London: DETR.

poor or derelict state"[11]. The consequence of historical and indeed potential future removal of hedges can directly translate to a deterioration of associated ecosystem services available to nature and communities.

Over the past 25 years key protection have been introduced for hedges. The main elements of these safeguards are The Hedgerow Regulations 1997 and GAEC 7a: Boundaries contained in cross compliance for farmers and land managers in receipt of Basic Payment Scheme (BPS), a stewardship scheme or Woodland Premium element of the English Woodland Grant Scheme.

Agri-environment grant funding to maintain and establish hedgerows, and maintain and restore dry stone walls, has been provided via Environmental Stewardship (ES), Countryside Stewardship (CS) and is newly available via the Sustainable Farming Incentive (SFI). This emphasises the aims of successive Governments to increase hedge coverage throughout England and deliver the co-beneficial outcomes of hedge establishment and maintenance via public sector funding.

Historic England's view

Historic England supports the development and continued commitment to agri-environment grant funding for the maintenance of linear features, supporting the delivery of targeted environmental land actions. Such funding has bolstered the delivery of co-beneficial ecosystem services- achieving "public goods for public money". By maintaining and restoring historic hedges, we are not only protecting key natural habitats but ensuring the permanency of key historic environment features.

The organisation also supports the transfer of hedgerow related GAEC 7a: Boundaries regulations to The Hedgerow Regulation 1997. We support the retention of measures that provide baseline protections for hedgerows in England, including preventing the removal of "important" hedgerows, retaining existing buffer zones as a minimum, preventing the use of fertilisers or pesticides, retaining existing cutting and trimming regimes, amongst other measures and exemptions. We are also interested to hear more about proposals to extend hedgerow regulations beyond agricultural land and are happy to liaise with and advise the Government on evaluating any potential impacts this may have to the historic environment.

We would stress the need to maintain a clear and consistent definition of an "important hedgerow". Currently, it is the responsibility of local authorities to determine whether an application to remove a hedgerow that is more than 20 metres, or which adjoins agricultural land is "important". It is imperative that any potential transition to amended wording is communicated clearly to local authorities in order to deliver their statutory duties and ensure that there isn't a gap in protection for hedges. Further consultation on amended wording should be taken with public specialist bodies, environmental organisations, and the public.

As demonstrated in our response above, hedges make a vital contribution to the character of an area and have an innate historically significance. When making decisions on what is a "important hedgerow" we would urge the Department for Environment, Food and Rural Affairs (DEFRA) to consider the historic significance of a hedgerow when determining what is deemed important. Historic England would welcome further consultation on any proposed changes to the definitions outline in the regulations.

[11] Countryside Commission (1996) *The condition of England's dry stone walls*. Great Britain.

With this in mind, we would also encourage DEFRA to extends protections beyond what is defined under The Hedgerow Regulations 1997 as a "hedgerow" to incorporate protection for other linear hedge features such as dry stone walls, stone and earth banks, and associated features such as ditches. It is unclear whether features such as stone and earth faced banks, especially where a hedgerow adorns the feature, would be within scope of The Hedgerow Regulations 1997.

Currently, there are around 100,000 km of stone walls in England. As previously demonstrated, an array of natural capital ecosystem services is delivered via linear features in the English countryside. Seemingly one of the most prevalent cultural services provided by these features is their contribution to sense of place, community and identity to rural landscapes. Alongside hedgerows, dry stone walls and stone and earth banks have become synonymous with the countryside, attracting people to protected and non-designated landscape alike.

Equally, they also provide a vast wealth of supporting and regulating services, providing habitats and shelter for wildlife and livestock, biodiversity corridors and carbon stores. As has also been demonstrated for hedgerows, walls in their various forms regulate soil movement, preventing erosion and nutrient and sediment run off from agricultural land. They also have played an historic role in regulating hydrological flows and can be a vital tool in the management of flood water. Their agricultural uses, such as a means of stock management and border demarcation, remain to this day with farmers and land managers able to fund their restoration and management via agri-environment funding. Research commissioned by Historic England has demonstrated how the stocks and flows of these features contribute as environmental and societal benefits[12].

With cross compliance due to end on January 1st, 2024, GAEC 7a: Boundaries will no longer apply to boundary features protected under cross compliance. Whilst provisions are being made to transfers rules for hedgerows from cross compliance to alternative legislation, regulations for other linear features are not being retained or transferred, leaving a sizeable gap in regulatory protection for boundary features. The result of not replicating existing regulations concerning existing stone walls, earth banks and stone banks may have serious implications for the historic and natural environment.

Baseline protection for dry stone walls and other linear boundary features will cease as of January 1st, 2024. This will mean the retention of dry stone walls, earth banks and stone banks will no longer be regulated, and no penalty enforced when such boundaries are altered, damaged or removed. Little to no protection will be provided to field boundaries that fall out of scope of The Hedgerow Regulations 1997. As a result, these historically significant features, as well as the services they provide, will be put at risk from development, intensification or piecemeal loss.

The only other legislation that currently applies to the protection of stone walls, earth banks and stone walls are the EIA (Agriculture) (England) Regulations 2006, under which a screening decision is required if the intention is to add or remove field boundaries that are over 4km long, or to add or remove field boundaries that are over 2km long on land in protected areas, such as a national park, area of outstanding natural beauty or site of a scheduled monument. However, given the thresholds, significant amounts of piecemeal loss may occur to boundary features fall before EIA is invoked, meaning that it will not provide equivalent protection to cross compliance.

Likewise, the vast majority of historic boundary features fall out of scope of Listing Designation as very few walls and banks are listed. While some boundary features are classed as non-designated

[12] Powell, J et al. (2018) "Developing an ecosystem approach - dry stone walls". *Research Report Series,* 43. Available from: https://eprints.glos.ac.uk/6468/

heritage assets by local planning authorities, the lack of statutory protection for non-designed features means they are not protected from alteration, damage or removal.

While we welcome DEFRA commitment to "protect traditional drystone walls by supporting their ongoing maintenance, and their restoration where they have become derelict" within the January 2023 ELM statement, we do not believe this in itself or the EIA (Agriculture) (England) regulations provide satisfactory protection from damage or detrimental alteration.

Successive governments have invested large public funds in the restoration and maintenance of linear boundary features. In order to protect this investment, and the public goods derived from the features, it is vital that regulatory protection found in cross compliance are transferred across to domestic legislation.

Therefore, we would strongly advise against any removal of regulatory mechanisms that ensure the protection of stone walls, earth and stone banks, without realignment to appropriate alternative legislation.

We would also urge DEFRA, alongside undertaking further consultations relating to the ending of cross compliance, to undertake a full impact assessment to evaluate the unintended consequences associated with removing regulations for boundary features under rural payment schemes.

Historic England will continue to lend support and advice to DEFRA, in partnership with the Department for Culture, Media and Sport (DCMS), on this matter.