

REPORT TITLE: CNAP REPORT: BIODIVERSITY GRASS VERGE MANAGEMENT
(PILOT ROAD VERGE PROJECT)

4 OCTOBER 2022

REPORT OF CABINET MEMBER: Cllr Kelsie Learney Cabinet Member for Climate
Emergency

Contact Officer: Coral Rogers Tel No: 01962 848543 Email
CRogers@WINCHESTER.GOV.UK

WARD(S): ALRESFORD & ITCHEN VALLEY AND BADGER FARM & OLIVERS
BATTERY

PURPOSE

This paper describes the proposed approach to Biodiversity Grass Verge Management (Pilot Road Verge Project) and the plans for continuation and expansion of the proposed changes to road verge and grassland management, and asks for comments on the proposals.

The paper sets out how the council will address related policy and actions in relation to biodiversity, in line with the WCC Biodiversity Action Plan (BAP) and carbon neutrality in line with Carbon Neutrality Action Plan (CNAP).

RECOMMENDATIONS:

The policy committee is invited to comment upon the proposal to:

1. Continue with this new approach to road verge management in selected areas within New Alresford and Badger Farm.
2. Expand this approach to other road verges and grassland within neighbouring areas of the district utilising the capacity of the newly purchased cut and collect machinery.

1 INTRODUCTION:

1.1 Project background

- 1.2 The benefits of managing grassland and verges in a traditional “meadow management” way are well documented (section 1.2) and utilised by many local authorities across the country (section 1.7). In 2019, Plantlife published its Good Verge Guide (1), setting out detailed guidelines on how to enhance biodiversity along the UK’s roadsides. Since Plantlife’s campaign for wilder road verges began, public pressure over road verge management has increased. Over the last few years WCC has received many enquiries from the public, interested community/conservation groups and Parish Councils looking to reduce grass cutting and allow wild flowers to grow.
- 1.3 The biodiversity of road verges depends on how they are managed – in particular, how often and when the grass is cut. A pilot project was established in 2021 to improve biodiversity on road verges in the Winchester District by managing them in a more appropriate way for wildlife whilst balancing the needs of residents.
- 1.4 Hampshire County Council (HCC) own many of the road verges in the district and are responsible for road safety, another important driver influencing the way road verges are managed. WCC manages certain verges on HCC’s behalf (generally road verges in urban areas). Following discussion, all pilot areas were approved by HCC. This took place via a Steering Group with representatives from Hampshire Highways, Hampshire Biodiversity and Information Centre (HBIC), IdVerde (Contract manager and Operations manager who deal with WCC’s grounds maintenance contract with liaison with NERT) and WCC officers/members.
- 1.5 One of the main changes brought in by the project was the reduction in the number of times we cut verges. This allows some flowers to grow and set seed before they are cut. This mimics more traditional meadow management but still includes some cutting during the growing season.
- 1.6 As well as reducing the frequency of cutting the grass, the pilot introduced the collection of arisings (grass cuttings). Removing the arisings is important because it reduces the fertility of the soil which is really beneficial for native wildflowers. If cuttings are left and nutrients are able to build up then this tends to favour dominant thick grasses and nettles. This was taken one step further in 2022 when the pilot was repeated in the same areas and specific cut and collect machinery was purchased by Idverde.
- 1.7 It is recommended that this project is continued in 2023 onwards and expanded to meet the capacity of the cut and collect machinery.
- ### 1.8 Supporting Information
- 1.9 We have lost a staggering 97% of traditional meadows in Britain (2) and with this we are facing unprecedented declines in pollinators. There has also been

a loss of species-rich grassland within Winchester itself with the area of lowland calcareous grassland having decreased by almost 20% between 2005 and 2018. For this reason road verges are becoming increasingly important for our native wildlife. If managed correctly they can support an incredible 700 species of wild flower including rare and threatened species such as orchids (1).

- 1.10 Allowing wildflowers to bloom and set seed provides nectar sources for pollinating insects such as bees and butterflies. If we manage our road verges effectively, the diversity of plant species will increase, creating better habitats and green corridors for wildlife across the district.
- 1.11 Improving biodiversity on verges can form part of the strategic plans to create and manage bigger, better, more joined-up habitats in line with the Lawton principles – making space for nature.
- 1.12 Carbon reduction is one of the council's main priorities. It is argued that meadow soils are a more reliable store of carbon than wood, because unless wood is preserved in buildings or furniture, tree trunk and root carbon is quickly re-released to the atmosphere. Whereas meadows are very active carbon accumulators. The plant root systems can grow to several metres in depth, evenly distributed. Therefore more permanent species-rich grasslands means more natural carbon storage. This project could therefore have real tangible benefits for carbon sequestration contributing to the Carbon Neutrality Action Plan (CNAP).
- 1.13 How do other councils manage verges for biodiversity?
- 1.14 Officers have liaised with neighbouring councils including Basingstoke and Deane Borough Council and Eastleigh Borough Council about their wildflower and road verge projects. They similarly manage some road verges on behalf of HCC (contractual specifications are unknown), however a key difference is that they manage these areas in-house with a countryside-service team rather than using an external contractor.
- 1.15 An article by Inkcapijournal in June 2021 (<https://www.inkcapjournal.co.uk/how-is-your-local-council-managing-its-roadside-verges/>) investigates how local authorities across England manage their road verges. 68 councils responded with specific details of cutting regimes. There was a huge range of approaches among councils when it came to managing urban road verges.
- 1.16 At least 35 councils responded that they had reduced their number of annual cuts; a handful of others had introduced new wildflower projects or had increased the number of conservation areas. Nine councils (Buckingham, Hertfordshire, Middlesbrough, Sheffield, October, Redbridge, Wakefield, Wokingham, West Berkshire and West Sussex) delayed road verge cutting until July or later in line with Plantlife's campaign.

- 1.17 As part of this investigation, they asked councils how much they spend on managing their road verges. 13 responded that they had reduced their spending on road verges in the last 5 years, in some cases by hundreds of thousands of pounds. Norfolk, for instance, is saving £100,000 this year by mowing its urban verges four times instead of five. Just four councils reported an increase in spending on road verges. In three cases, these were connected to environmental improvements – Rotherham, for instance, has engaged an ecologist to review its cutting regime.

2 PROJECT DETAIL

2.1 The Biodiversity Grass Verge Management project has the following aims

- To preserve and enhance biodiversity: in particular to enhance existing chalk grassland, part of species rich grassland as identified in Winchester's Biodiversity Action Plan (BAP) to benefit native wildflower species and pollinating insects within road verges.
- Enhance the public realm (aesthetics and visual interest) as more wildflowers will be visible in public areas on road verges.
- Raise awareness of the value of chalk grassland, wildflower areas and appropriate management of road verges.
- Benefit Health and Wellbeing by providing opportunity to experience more wild and open green spaces in urban areas.
- Contribute towards the CNAP with sustainable land management and carbon storage within our grasslands. In general, species-rich grasslands, including well managed road verges can store more carbon in their root systems than uniform species-poor, amenity grasses. The less frequent cutting also means less fuel usage, and in the future less moving of cuttings to disposal sites, meaning a smaller carbon footprint.

2.2 Management & monitoring changes

2.3 Most urban verges are currently scheduled to be cut nine times from March to September (referred to as **G4** in the contract with Ideverde).

2.4 Two new types of cut were developed for this pilot:

- **WF4** – Wildflower verges cut and collected four times from March to September (every other G4 cut)
- **WF2** - Wildflower verges cut and collected two times. Once in March and once in September.

2.5 From a biodiversity perspective the WF2 cut is the preferred type of cut (2), however this requires special agreement from HCC and is therefore limited to a few areas.

- 2.6 As part of the project a 1m margin is cut and sight lines are maintained as specified by HCC for road safety reasons.
- 2.7 As well as the reduction of the frequency of cutting the grass, the introduction of collecting arisings using a cut and collect machine is an important aspect of this project. Suitable machinery has been purchased at a cost of £48k by IDVerde, the type of machine is a ISEKI SF551 with a flail deck. This allows arisings to be transferred directly to a trailer which then enables cuttings to be efficiently transferred to the green waste store at King George V (KGV) Playing Field.
- 2.8 The project has led to WCC undertaking monitoring of a sample of the pilot verges to determine if biodiversity is increasing and if the project is successful. Hampshire Biodiversity Information Centre (HBIC) have undertaken a thorough baseline survey which will be repeated in 3-5 years' time. In addition to this, monitoring will be undertaken on a monthly basis with the help of community groups. This includes fixed point photography to show the change in appearance of the verges as well as a basic species list.
- 2.9 The monitoring and evidence will enable us to establish which management strategy (either WF4 or WF2) has the biggest benefits for biodiversity, carbon reduction and safety.
- 2.10 Appendix 2 highlights how we will monitor the financial and contractual variation over the initial 5 year period compared to the standard G4 cut. This will assist us in understanding where savings are being made and how our carbon footprint can be reduced.
- 2.11 It is recommended that these management changes are continued in 2023 onwards and expanded to meet the capacity of the cut and collect machine.
- 2.12 Areas included
- 2.13 Pilot project 2021 & 2022
- 2.14 The verges in Badger Farm and New Alresford were chosen because of their potential existing seed banks and botanical interest and the awareness and involvement from local residents, parish councils and community groups. The process for choosing these sites was a map-based activity utilising HBIC's map layers with details on landscape, size, habitat type, aspect and also ground-truthing the areas and looking at practicalities including access and slope levels. The number of verges included in the pilot is ambitious but manageable. Maps of the verges included in the pilot are in Appendix 1.
- 2.15 Project extension 2023 onwards
- 2.16 The capacity of the new machinery will dictate where we can extend the project. There is interest from various community groups and we aim to expand in to suitable neighbouring areas. Ecological connectivity and

practicality reasons support the extension of the project to adjacent neighbouring areas geographically.

2.17 Results after Year 1 of the Pilot Project

2.18 Successes

2.19 Implementation

2.20 Commissioned HBIC to undertake baseline surveys of the 2021 pilot verges to determine the quality and condition of the current habitat. This survey will be repeated in the future to measure the degree of success of the project. Change in the habitat quality due to the change in management will be reflected in mapping of the National Vegetation Classification (NVC) habitats and species list, however any definite change in NVC habitats is likely to take at least five years.

2.21 Several of the verges were found to have a fairly good potential for chalk grassland to develop. Many of the verges had a good herb presence and moderate diversity in species. Chalk grassland indicator species and notable species such as White Helleborine were also recorded on some of the verges. Although some verges or sections of verge had less potential for chalk flora and were considered to be amenity grassland at present.

2.22 Although only the first botanical surveys have been undertaken, these measure successful management practices (changing grass cutting regime) via improvements in biodiversity and this supports the continuation of the road verge project. Further surveys over a longer period will hopefully show further successes with more wildflowers present on road verges.

2.23 Communication:

2.24 Involved community groups in Badger Farm and New Alresford in terms of site selection, monitoring and management.

- Steering Group formed – included essential partners i.e. HCC Highways, IDV, Cabinet member for climate emergency and relevant officers. Led to consensus, key contacts, and supported delivery of the project.
- Website updated and maps provided informing people what we were doing.
- Communication plan established and information published on social media and in newsletters most months from March to September.

2.25 Lessons learned

2.26 Implementation:

- The Idverde contract is not very flexible in that its difficult to change cutting schedules

- Weather plays a role in the speed and height of grass growth and delays to cutting. Covid and petrol shortages also had an impact on this.
- Difficult for Idverde to cut really long grass. It takes longer and looks messier afterwards therefore new cut and collect machinery was considered necessary for continuing the pilot in 2022.
- Verges less than 3m wide are not worth including.
- Verges considered for 2 cuts per year shouldn't be opposite/next to junctions and should be at least 6m wide.
- Cutting the edge seemed to reduce complaints about messy appearance as the verges looked more managed.

2.27 Communication:

- Importance of getting Ward members and Parish/Town Councils on board.
- Partially due to the timing of cutting around the election period and mixed messages regarding No Mow May
- Maps are essential so members/public/Idverde are all clear what is included in the project and what is not
- Signs put out by community groups were stolen and HCC will not agree to any signage.
- Engagement and spreading awareness/positive message is really important.

2.28 Planned communications improvements

2.29 Arising from the lessons learned, a new Comms Plan will be delivered from 2022 onwards with regular liaison with key stakeholders including ward councillors, town councils and parish councils. Our agreed Comms Plan includes monthly newsletter and social media outputs to keep members of the public updated.

2.30 From 2023 onwards we will do a pre-season or an end of season meeting with all ward members to update on what is planned and to address any concerns. Ward members would then be able to feed back to Parish and Town Councils and they could pass on any comments to us. If there is a specific requirement or urgent need then officers would be able to attend each Parish/Town Council for one meeting per year.

3 **Proposed areas in 2023 onwards – expansion methodology**

3.1 An additional 52,000m² of grass can be cut using the purchased cut & collect machinery spread over the next few years.

3.2 Identify one additional area every two years for the next 6 years.

	Pilot	2023/24	2025/26	2027/28	Capacity
Additional area m ²	28,579	15,000	15,000	15,000	7,000
Total Area m ²	28,579	43,579	58,579	73,579	80,579
Capacity Share	35.5%	54.1%	72.7%	91.3%	100.0%

3.3 We will identify these areas in the autumn/winter prior to the operational year. Engagement with ward Councillors, Parish Councils and Town Councils will also take place in the winter months before cutting commences in spring.

3.4 Criteria for site selection will be a GIS based assessment. Looking at the following attributes:

- Proximity/connectivity to existing areas in the project
- Size & shape of area of grass to have potential for biodiversity enhancement (at least 3m wide)
- not opposite/next to junctions
- An existing conservation group to help deliver the project. To include site selection & monitoring
- Biodiversity condition/potential (shading from trees, disturbance etc.)

3.5 In 2028 we will review all remaining road verges in the district and assess whether further expansion is suitable. HBIC will have repeated the second survey of the road verge by 2026. These results will be used to determine the success of the project and will be taken into account when considering any proposals for further expansion.

3.6 Ressources for expansion

Task	Timing	Officer/s responsible
GIS Assessment	October	Ecologist/ Biodiversity Officer Contract Support Officer
Ground truthing area selection	October	Ecologist/ Biodiversity Officer Open Space Officer
Community liaison to set up area	November	Open Space Officer
Produce draft maps	November	Contract Support Officer
Liaison with steering group (areas approved by HH & Idverde)	Early December	Open Space Officer

Task	Timing	Officer/s responsible
Engagement with ward Cllrs/PC & TC (attend 1 Parish Council meeting if required)	Early December	Open Space Officer
Finalise maps	January	Ecologist/Biodiversity Officer
Produce Comms plan/engagement with public	February	Open Space Officer

4 **Conclusion**

- 4.1 The pilot phase (2021 and 2022) of this project so far has been successful in increasing biodiversity, as set out in section 2.18, with changes made to the way we manage selected road verges, including reduced cutting and introducing collecting arisings. There have been lessons learned, in particular in relation to how project plans and aims are communicated to the wider community.
- 4.2 It is recommended that we continue and expand this new approach to road verge management because it has good potential to develop chalk grassland (one of Winchester's Biodiversity Action Plan (BAP) habitats) to benefit native wildflower species and pollinating insects. In turn this could also have real added benefits for carbon sequestration, health and wellbeing and the visual interest of road verges.
- 4.3 It is hoped that this pilot will assist in the movement to more extensive grassland management changes across the board in the future with the facility to change cutting regimes on areas of non-road verge grassland too. It is possible that the council will look at changing the way other areas of species-rich grassland (other than road verges) are managed within the grounds maintenance contract.
- 4.4 The Steering Group will facilitate discussion with HCC and obtain approval for any extensions or new areas of road verge management. NERT will liaise with local communities, members and Parish/town councillors as part of this process. Cut-and-remove could be employed on other WCC grasslands utilising the same equipment and same approach to bring about similar rewards.

5 **RESOURCE IMPLICATIONS**

- 5.1 There will be an increase in the grounds maintenance budget associated with the proposed management regime. The additional £17.5k in 2022/23 to pay for 30,000m² included in the pilot was paid from existing budget.

5.2 The table below gives the changes in costs

Year	Quantity (m ²)	Unit cost £ / m ²	Annual Cost (for all cuts)
Baseline	G4 = 30,000	0.08	£2,400
2022/23	WF4 = 28,579.12 WF2 = 1544.35	0.68 0.34	£19,562 £525.08
Additional capacity	WF 4 = 52,000	0.40	£28,500

Estimated annual costs based on WF4 cuts

Cutting regime	Pilot years	Yr 2	Yr3	Yr4	Yr5	Yr6	Onward
	2021/23	2023/24	2024/25	2025/26	2026/27	2027/28	Capacity
Additional area m ²	0	15000	0	15000	0	15000	7,000
Total Area m ²	28579	43,579	43,579	58,579	58,579	73,579	80,579
Unit cost £	0.68	0.4	0.4	0.4	0.4	0.4	0.4
Gross cost p.a.	£19,548	£17,432	£17,432	£23,432	£23,432	£29,432	£32,232
G4 cutting costs - removed	£2,410	£3,486	£3,486	£4,686	£4,686	£5,886	£6,446
Net cost p.a.	£17,138	£13,945	£13,945	£18,745	£18,745	£23,545	£25,785
Increase p.a.		-£3,193	£0	£4,800	£0	£4,800	£2,240

- 5.3 In the pilot 30,123m² of grassland was included; 28,579m² as WF4 and 1544m² as WF2. The future costs have been estimated based on WF4 cuts, there will be opportunity to include some areas as WF2 cuts. The cut & collect machinery has a total capacity of 80,579m².
- 5.4 Estimating that an additional 15,000m² will be added every two years this will require an increase in the baseline budget. Accounting for an equivalent reduction in cost from the G4 cuts, when the machine is at capacity the annual net cost for cutting will be £25,785. It should be noted that the current contract rates will change in October. This budget increase will need to be included in the ongoing baseline requirement for urban verges grass management / cutting from 2023/24 onwards.
- 5.5 Suitable machinery has been purchased at a cost of £48k by IDVerde, the type of machine is a ISEKI SF551 with a flail deck. This cost has been accounted for in the increased rates for the pilot years and the rates onwards account for the the additional labour, fuel, waste and running cost to cut the additional areas.
- 5.6 In future years, the change in management will remove nutrients from these areas and will favour wild flowers and finer grasses. This in turn will lead to reduced grass growth and reduce the volume of arisings produced. In the long

term this will likely lead to cost savings as cutting will take place less frequently and collection and transportation of arisings will not be so time consuming. Other authorities such as Dorset County Council have evidenced these changes and cost savings. (See <https://www.dorsetcouncil.gov.uk/countryside-coast-parks/countryside-management/verge-cutting/verge-cutting-information-dorset>)

6 OTHER OPTIONS CONSIDERED AND REJECTED

- 6.1 *Revert back to previous verge management in New Alresford and Badger Farm.* This would not meet our objectives to enhance biodiversity and would not be in accordance with the WCC Biodiversity Action Plan (BAP) 2021. The baseline survey showed that many of the verges have moderate species diversity and several have fairly good potential of developing chalk grassland but the report suggested it would take several years of beneficial management to achieve any significant changes. The progress made towards achieving this would be lost if the management was to be reverted back. This option also would not make use of the newly purchased cut and collect machine.
- 6.2 *Continue with the changes to road verge management in New Alresford and Badger Farm but do not expand the project further.* This option would not make use of the full capacity of the newly purchased cut and collect machine. We would not realise the benefits of using this machine if the project was not expanded. Including:
- Enhance existing chalk grassland to benefit native wildflower species and pollinating insects within road verges.
 - Enhance the public realm as more wildflowers will be visible in public areas on road verges.
 - Raise awareness of the value of chalk grassland, wildflower areas and appropriate management of road verges.
 - Benefit Health and Wellbeing by providing opportunity to experience more wild and open green spaces in urban areas.
 - Contribute towards the CNAP with sustainable land management and carbon storage within our grasslands.
- 6.3 Several groups and Parishes are looking for reduced cutting and wildflowers within their areas so not pursuing an opportunity to expand this project could lead to disappointment and falling behind with the progress made throughout other areas of the country.
- 6.4 *Continue and expand the project with an alternative contractor.* We already work closely with Idverde as part of the wider grounds maintenance contract and they now have a specific cut and collect machine for this project.

- 6.5 *Expand the changes across the entire district.* This would be extremely resource heavy for both WCC and our contractors. Additional cut and collect machinery would need to be purchased. A plan would need to be devised for transporting and disposing of the initially large quantities of cuttings, all of which are not possible with current resources. If the further expansion is successful then a full business case will be prepared to take this service district wide.

BACKGROUND DOCUMENTS:-

1. Plantlife (2019) Good Verge Guide. A different approach to managing our waysides and verges.
2. Hayhow DB, Eaton MA, Stanbury AJ, Burns F, Kirby WB, Bailey N, Beckmann B, Bedford J, Boersch-Supan PH, Coomber F, Dennis EB, Dolman SJ, Dunn E, Hall J, Harrower C, Hatfield JH, Hawley J, Haysom K, Hughes J, Johns DG, Mathews F, McQuatters- Gollop A, Noble DG, Outhwaite CL, Pearce-Higgins JW, Pescott OL, Powney GD and Symes N (2019) The State of Nature 2019. The State of Nature partnership.

Other Background Documents:-

None

APPENDICES:

Appendices 1 and 1a – Maps showing the road verges included in the pilot project