

The background of the slide features a large, light blue watermark of the City of Vancouver's coat of arms. The crest includes a crown with four maple leaves, a shield divided into four quadrants (top-left: a ship, top-right: a stag's head, bottom-left: a sailing ship, bottom-right: a grizzly bear), and a banner at the bottom with the motto "A NE FOR A".

Agenda Item 5

Biodiversity and Sustainable Grass Management Pilot

Falkirk Council

Title: Biodiversity and Sustainable Grass Management Pilot
Meeting: Executive
Date: 12 January 2021
Author: Acting Director of Development Services

1. Purpose of Report

- 1.1 A review of Falkirk Council's grass management practices has recently been carried out to consider how our grassland areas should be managed in the future. It identifies changes that can be made to help address key issues including health and well-being, the climate emergency, global biodiversity loss, and budget constraints.
- 1.2 The Executive is asked to approve the review and its recommendations for a pilot project to trial new ways of managing grassland areas at 35 sites covering a small percentage of the total area of Council managed grassland. It is also proposed that a consultation exercise be undertaken to assess the impact of the pilot sites and determine arrangements for wider roll-out of the approach

2. Recommendations

2.1 It is recommended that the Executive:

- (1) notes the attached Biodiversity and Grass Management Review 2020**
- (2) agrees that the recommended pilot programme of changes to biodiversity and grassland management proceeds from March 2021**
- (3) requests that officers monitor the outcomes of the pilot programme**
- (4) requests officers to report the results of the pilot back to Executive at the end of spring 2022, with recommendations for next steps.**

3. Background

- 3.1 Falkirk Council manages a range of grassed areas including parks and public open spaces, grass areas around residential and commercial properties, road verges and path edges. The total area of grass cut by the Council's grounds maintenance teams is 617 hectares and an additional 27.74 hectares area of grass verge is cut by contractors.
- 3.2 These grassed areas fulfil a growing range of functions. In the urban environment, they serve numerous social and environmental functions in leisure, amenity, health and well-being use and as a consequence deliver multiple benefits. Changes to how we manage grassland areas can help deliver healthier places and can help address the climate emergency and reduce biodiversity loss in a cost effective way.
- 3.3 Officers in Development Services have examined how the Council might change the way its grassland areas are managed and during 2020 have undertaken a review of the approach to biodiversity and grass management, making recommendations for change. A copy of the review document is attached to this report (Appendix 1).

4. Policy context

- 4.1 The impact of Covid-19 has clearly demonstrated the huge importance of accessible, outdoor space to the mental and physical well-being of people across all communities. The Council's Corporate Plan 2020-22 priorities state that: *"Everyone has an equal chance to be healthier, happier, safer and build sustainable communities"*. It commits the Council to working to protect and improve the health & wellbeing of all, and safeguarding green spaces. Changes to how grassed areas are managed (particularly parks and greenspaces) can help create healthier environments and increase opportunities for natural play and exploration.
- 4.2 In 2019 the Council declared a Climate Emergency. Changes to how the Council manages its grassland can help to reduce CO² emissions (from machinery), absorb more CO² from the atmosphere, and make greenspaces more resilient to the impacts of climate change.
- 4.3 There is at present a global biodiversity emergency, involving a dramatic loss of species. The Local Biodiversity Action Plan (approved by the Executive in October 2018) sets out a range of actions to help address local biodiversity loss. This included an action to:

"Review Falkirk Council's open space maintenance regimes. Work to establish a range of grass cutting options (including some of increased benefit to wildlife) - supported by appropriate machinery, training and awareness raising."

- 4.4 Some site-specific work has already been done to convert areas of amenity grass to longer grass and wildflower meadows. Surveys indicate a significant increase in biodiversity at these sites
- 4.5 Stopping grass cutting as a result of the Covid-19 lockdown in March 2020, allowed longer grass and wildflowers to appear in areas previously maintained as short grass. Positive public reaction to this suggested that there is an appetite for change and that a more naturalised approach to grassland management would be appropriate to pursue. The Council's Corporate Plan 2020-22 states *"we will look to capitalise on the environmental and green benefits that arose during lockdown to ensure we meet our carbon reduction targets"*.
- 4.6 The Council's Corporate Plan also states *"we will identify new ways of working and service delivery models to help meet the Council's financial challenges and retain new and better ways of working"*. This review suggests that changes to our grass cutting regimes will help the Council to work more efficiently and that it may also help address significant budget challenges.
- 4.7 The Council's Open Space Strategy (approved in October 2016) commits the Council to identifying those parks and open spaces where high intensity maintenance regimes are necessary to maintain an appropriate image. It also suggested that lower intensity maintenance regimes would be more appropriate to save money and enhance value for wildlife. Changing the management of the parks and open space resource would also enable the Council to exploit opportunities to further the conservation of biodiversity and reduce overall flood risk.

5. Biodiversity and Grass Management Review 2020: Report and Recommendations

- 5.1 The Biodiversity and Grass Management Review considers:
- the Council's current approach to maintenance of grassed areas;
 - the range of social and environmental functions we need these areas to offer;
 - the need to change the current approach to grass cutting to secure these benefits within current resources;
 - a range of options for future maintenance of grassed areas;
 - issues to address in considering these options; and
 - appropriate locations and key considerations for each option.

The review goes on to make recommendations for a pilot exercise to implement the proposed changes to grass management at 35 sites during 2021, with ongoing monitoring to take place to assess the impact of these measures.

The report includes appendices with details of the proposed pilot sites, the recommended management of these sites and how the pilot phase will be monitored and assessed.

- 5.2 It is proposed that this approach be adopted for the pilot sites and that consultation on the broader approach to grass maintenance takes place over the course of this year, reporting back on the proposed policy, the impact of the pilot stages and implications for wider rollout across the remaining grassed areas managed by the Council.

6. The Pilot

- 6.1 The recommended approach to the alternative grass management regimes that it is proposed be trialled within the pilot is as follows:

Parks and areas of open grass:

Option	Description
Amenity cut – delayed start	Delay the first amenity cut until June/July to allow some spring flowers or bulbs to bloom.
Amenity cut – reduced frequency	Currently amenity grass which receives x12 cuts per year, reduced to x10 or x8 cuts per year.
Meadow cut	One cut per season and removal of the cuttings to produce a wildflower meadow.
Naturalised grass	1, 2 or 3 cuts per season and no collection of cuttings, to give longer, more natural grass (potentially with some wild flowers).
No grass cut	Leave the grass to grow long.

- 6.2 At some sites these cutting changes will be accompanied by additional enhancements including bulb planting (in autumn 2021), wildflower meadow creation, woodland planting, and wetland creation.

Road verges:

Options	Description
Sightlines cut only	Only cut short the width of grass required for safety (sight lines). The size of the visibility splay required will vary from junction to junction. Leave the rest of the verge uncut.
Sightlines cut & naturalised grass	Cut a width for safety/sightlines as frequently as required, then apply a naturalised cutting regime to the wider verge area - cut once or twice a year without removal of cuttings.

- 6.3 In addition to the above options the following may also be considered on road verges:

- Delaying the first verge cut to allow flowers to bloom,

- Identifying conservation verges and managing them appropriately
- Bulb planting for amenity and biodiversity benefits
- Meadow establishment on wider verges
- Shrub or hedge establishment on wider verges.

6.4 The table below lists the proposed pilot sites. A full list of pilot sites with the proposed treatment of those sites is provided in Appendix 1 and 3 of the attached report. The pilot sites are:

Site	Location
A9 North Distributor (wide verges)	
Anderson Park	Denny
Ash Park	Banknock
Beancross Road from Newland Roundabout to Cadgers Brae Roundabout	Beancross
Blinkbonny Park ,off Windsor Road	Falkirk
Braes View	Denny
Burnbank Road from Newlands Road to Portal Road end	Grangemouth
Camelon Public Park	Camelon
Corrie Park / Chapel Burn corridor	Stenhousemuir
Crownest Park	Stenhousemuir
Dalgrain Road (East Side)	Grangemouth
Dollar Park	Falkirk
Drum Road	Bo'ness
Duncan Stewart Park	Bonnybridge
Easter Carmuir's Park area at the top of Ochiltree border also on Glencairn and Kenmuir Street	Camelon
Finlay Russell Park	Stenhousemuir
Gala Park	Denny
Gilston Crescent	Polmont
Gray Buchanan Park	Polmont
Haypark	Head of Muir
Herbertshire Park	Denny
Kinnigars Park	Bo'ness
Laurie Park	Brightons
Laurieston banking across from Benny T's	Falkirk
Portal Road (Tree belt area)	Grangemouth
Road verge (wide)- opposite Falkirk High School	Falkirk
Roadside (wide) – Beancross road	Grangemouth
Roadside (wide) – Glenfuir Road	Falkirk
Roadside (wide) - Hallglen	Hallglen
Roadside (wide) – New Carron Road, Stenhousemuir	Stenhousemuir
Stenhouse Park	Stenhousemuir.
Stirling Rd Playing fields	Camelon
Sunnyside Playing fields	Falkirk
Tamfourhill Industrial Estate. Area bordering Lime Road but in the estate itself.	Tamfourhill
Zetland Park	Grangemouth

Note: The development of detailed proposals for each pilot site will take place during January-March 2021, and may result in some minor changes from the outline management proposals identified within the report.

- 6.5 The report identifies a number of success criteria for the pilot (in Appendix 4). These are:

Financial	Overall the changes provide a revenue cost saving (this excludes the cost of one-off, optional capital enhancements like bulb planting).
Environmental	Pilot sites provide improved habitat for biodiversity – indicated by an increased variety of plant and animal species present.
	There is a net reduction in CO ² emissions (based on reduced emissions from maintenance activity and increased CO ² sequestration capacity).
Social	Safety requirements continue to be met.
	Residents continue to have access to open spaces which provide them with opportunities for informal recreation (walking, kickabout areas, picnics etc.) community event spaces (galas etc), exercise and other health & wellbeing benefits.
	There are increased opportunities for natural play and discovering and enjoying wildlife.
Logistical	The altered cutting requirements (including the timing of cuts) are deliverable with the resources (staff capacity, machinery etc.) available.
Communication	Good communication helps to explain the reasons for and benefits of the changes at pilot sites.
	Consultation with communities on the proposed approach and to monitor the impact of the changes at the pilot sites.

- 6.6 Monitoring will take place throughout the pilot to measure the benefits and challenges of the changes being made. It is proposed that the monitoring results and an assessment of the pilot against the above criteria will be reported back to Executive at the end of spring 2022. At this point recommendations will also be made for further roll-out of changes, if this is supported by the results of the pilot.

7. Consultation

7.1 During the pilot phase officers will engage with local people and communities to raise awareness of the reasons for the changes being made and to seek views about the changes. This will be done by:

- publicising the pilot and promoting the well-being, environmental and financial benefits it is anticipated can be delivered;
- providing explanatory signage at the pilot sites;
- collating all feedback received about the pilot; and
- promoting an online questionnaire via the Councils consultation hub, seeking public views on how grassland areas are managed for these multiple benefits.

8. Implications

Financial

8.1 The roll out of the new approach proposed in the pilot will involve some additional expenditure (targeted bulb and tree planting, purchase of machinery etc). It may be possible to secure some external funding for this, however, it is likely that a significant proportion will need to be funded from the existing budgets of pilot site land account holders.

8.2 It is anticipated that the pilot will generate some modest revenue cost savings due to the reduction in amenity grass cutting. Grass cutting at most of the pilot sites is carried out by tractor operations, and is non-labour intensive, therefore it is unlikely that the changes in approach will deliver any significant efficiency savings at this scale. The actual financial savings achieved from the pilot sites will be measured and reported at the end of the pilot phase.

Resources

8.3 Existing Council staff will be involved in the delivery and monitoring of the pilot phase. It is anticipated that staff costs can be met from within existing budgets.

8.4 To cope with the volume of proposed changed cutting regimes, a minimum of 1 more Amazone bailer would need to be purchased at a cost of c£20k.

8.5 Dependent on the scale of wildflower meadow planting on pilot sites it may prove challenging to carry this out extensively at the start of the grass cutting cycle within existing grounds resources. The approach will be monitored to inform any subsequent planting required at further sites.

Legal

8.6 None

Risk

- 8.7 The pilot phase looks to reduce risks by trialling the new approaches to grass cutting at a limited number of sites. The availability of suitable cutting machinery, staff capacity and funding for capital enhancement works (e.g. bulb planting) may impact on the detailed design and scale of works at some of the pilot sites.

Equalities

- 8.8 Selection of the pilot sites and changes to their management will be done in a way that ensures open space accessibility and quality standards are not reduced. The equality impacts of this limited pilot are considered to be minimal. Potential impacts on those with protected characteristics will be assessed through the production of a full Equality and Poverty Impact Assessment prior to any full wider roll out and in advance of, and part of, reporting back.

Sustainability/Environmental Impact:

- 8.9 It is anticipated that the implementation of the pilot will have positive environmental effects through enhancing biodiversity and habitat value, reducing CO² emissions and improving the capacity of greenspaces to absorb CO² and pollutants. However, given the relatively limited scale of the pilot, those effects are not considered to be significant, therefore a full Strategic Environmental Assessment is not required.

9 Conclusion

- 9.1 Changes to how the Council manages its grassland area could deliver significant social, environmental and, in time, financial benefits. A range of alternative management approaches is presented in the Falkirk Council Biodiversity and Grass Management Review 2020.
- 9.2 The pilot programme recommended in the review will enable the Council to trial these alternative management approaches, consult with communities, monitor and quantify the benefits they deliver and any challenges they present. This will inform future recommendations for the wider roll-out of changes to the Council's grass management regimes and these will be the subject of a further report to Executive on conclusion of this work.

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Appendices

Appendix 1: Falkirk Council Biodiversity and Grass Management Review 2020

List of Background Papers:

Falkirk Council's Corporate Plan 2020-22

Falkirk Council Open Space Strategy 2016

Falkirk Council - Local Biodiversity Action Plan 2018

Falkirk Council Biodiversity and Grass Maintenance Review 2020

October 2020

This paper looks at options for a new approach to Falkirk Council's management of grass areas and how to take this forward. It considers:

1. Falkirk Council's current approach to maintenance of grassed areas;
2. The range of social and environmental services we now need these areas to provide;
3. The need to change our current approach to grass cutting to secure these benefits within current resources;
4. A range of options for future maintenance of grassed areas;
5. Issues to consider with these options;
6. Appropriate location types and key considerations for each option;
7. Recommendations

Appendices 1-3 identify a series of proposed pilot sites and maintenance regimes.

Appendix 4 details measures of success.

1. What Falkirk Council does at the moment.

Falkirk Council manages a range of grassed areas including parks and public openspaces, grass areas around residential and commercial properties, road verges, path edges and pitches. Given their specific cutting requirements sports pitches will not be considered further in this paper.

Total area of grass managed by grounds maintenance: 577.65 Hectares

Total area of grass verge cut by contractors: 27.74 Hectares

The table below details the type of cutting currently undertaken.

Cutting type	Total Area	Frequency	Annual Cost
General amenity grass	577.65	12 cuts per year	£381,870.82
Low maintenance grass	36.2	2 cuts per year	£55,795.81
Meadowland	8 hectares (approx.)	1 cut per year and removal of cuttings	Contractor. Approx. £500 per hectare. Total cost: £4000
Remote cut grass slope	3.98	3	£20,779.82

Meadow areas

Over the last few years areas of meadow totaling at least 4.5 ha have been created in parks and greenspaces. In most instances these meadows have replaced areas of amenity grass. The meadows are cut once a year and the arisings removed. To date this cut and lift has been done by an external contractor, paid for from Planning and Environment budgets rather than mainstream grounds maintenance budgets. Public reaction has been generally positive, with just a small number of contacts from people unhappy with the new regime. Surveys have indicated a significant increase in biodiversity (particularly invertebrates) at these sites.

No-cut areas

Over the last few years some areas of grass, totaling about 4.63 hectares have been removed from the cutting regime altogether. This is sometimes because they are on steep slopes which are unsafe to cut. However, some areas have been removed from cutting to provide longer grass of benefit to wildlife or to reduce maintenance costs.

Machinery

Falkirk Council has recently purchased a flail mower with hopper which will enable us to cut long grass and collect it for removal off site or elsewhere onsite. This increases the range of grass cutting regimes which can be done in-house. This machine can also efficiently cut and mulch long grass, leaving the mulched cuttings in-situ.

2. What our grassed areas need to do for us.

Our grassed areas must fulfill a growing range of functions. Grassed areas (particularly in the urban environment) need to provide a whole range of social and environmental services; delivering multiple benefits. <https://www.forestresearch.gov.uk/tools-and-resources/urban-regeneration-and-greenspace-partnership/greenspace-in-practice/benefits-of-greenspace/>

These areas can play an important role in creating a healthy and thriving environment. This is vital to meeting our new corporate priorities, particularly delivering more sustainable communities to allow everyone to feel healthier, happier and safer.

Healthy places for people:

Places for recreation, exercise and fresh air.	Parks and greenspaces provide vital areas for recreation, exercise and fresh air. This crucial role has been emphasised during the Covid-19 crisis. https://www.greenspacescotland.org.uk/health
Places for play and contact with nature	People are becoming increasingly disconnected from nature and greenspace. We need to provide places where people can easily access and enjoy the natural environment. https://www.rspb.org.uk/Images/connecting-with-nature_tcm9-354603.pdf Greenspaces are our children's outdoor classrooms. https://www.greenspacescotland.org.uk/education
A visually attractive, clean and safe feeling environment	Parks and greenspaces need to provide a safe and pleasant environment. However, people's views about how these spaces should look vary considerably.
A healthy environment	Vegetation such as trees, but also long grasses, help to trap particulate pollution (for example from car exhaust) creating a cleaner, healthier environment. https://www.greenspacescotland.org.uk/environment There is much evidence for the significant mental health benefits of experiencing nature and greenspaces. http://www.bbc.co.uk/earth/story/20160420-how-nature-is-good-for-our-health-and-happiness

Biodiversity emergency

Vital shelter and food for wildlife	Globally we are witnessing a massive decline in biodiversity. Our parks, greenspaces and road verges can provide vital wildlife havens, often in areas that have lost much of their natural habitat. The Council has a legal duty to further the conservation of biodiversity through all its functions.
Connected spaces and corridors for wildlife.	To thrive, wildlife needs to be able to move between different areas of shelter and food. Greenspaces, if managed appropriately, provide important wildlife corridors, particularly through urban areas. Road verges can make fantastic wildlife corridors but increasingly earlier cutting and frequent cutting significantly reduce the wildlife they can support. Plantlife's Good Verge Guide

Climate emergency

Carbon reduction and capture	Falkirk Council has declared a climate emergency. As part of our response to this emergency our greenspaces must be managed to enhance their capacity to capture carbon dioxide. Maintenance activities should also be designed to minimise greenhouse gas emissions.
Climate change resilience	Greenspaces need to improve our resilience to climate change impacts, to help safeguard local communities and our natural environment. Managed appropriately they can intercept and slow down flood waters during high rainfall events. Greenspaces can also reduce urban heat effects.

3. Why we need a new approach.

3.1 Delivering multiple benefits

Our current approach to grass cutting largely reflects a traditional approach to the maintenance of parks and greenspaces which prioritised a neat and tidy appearance, akin to a garden. Whilst traditional amenity grass has some value for biodiversity and climate change resilience, this is very limited. It does of course remain important for some recreation (picnics, games etc.).

Some areas of low maintenance grass and meadow have been created more recently on an ad hoc basis. The meadow areas have been shown to support significantly more wildlife. Brief visits to two new meadows in 2019 recorded 43 wildflower species and 36 invertebrate species, most of which would not have been present in short amenity grass. However, so far these changes have been on a relatively small scale.

We are not making the most of our parks, greenspaces and verges to deliver multiple benefits for local communities and the environment.

3.2 A changing climate

Climate change is likely to make the current maintenance model more difficult and costly. Predicted climate changes will lead to an increase in the length of the growing season which will, in turn, lead to more cuts being required each year. This will significantly increase management costs and add to the carbon footprint of greenspace management.

Longer spells of wet conditions may make grass cutting difficult, or impossible, for parts of the year. Drier summers will lead to grass becoming parched and increased soil cracking and erosion. Use of grassy areas during both wet and dry conditions may lead to more damage to the sward and soil; potentially requiring more remedial work. Higher levels of winter rainfall and increased intensity of weather events will lead to more frequent flooding of grassed areas. ([Retrofitting urban parks to deliver climate change actions: Grassed areas](#))

3.3 Resources

These are challenging times for Local Authorities. Financial constraints and budget cuts mean we must be prepared to change how we manage our greenspaces and grassland. We need to explore new approaches to deliver multiple benefits and meet the needs of local communities and the environment in a cost effective way.

3.4 Public perceptions and aspirations

The public tend to expect traditional grass management (amenity cutting) and can often perceive changes to long grass or reduced cutting as untidiness or ducking responsibility for management. However, there is a growing number of local people who want to see greater consideration of environmental benefits. Following the temporary cessation of grass cutting during the Covid-19 lockdown, numerous local people have contacted the Council requesting that areas remain uncut or cutting is delayed to enable flowers to bloom and wildlife to thrive. Witnessing the benefits of longer grass has produced a shift in the attitudes of some local residents and greater pressure to reassess how we manage these areas.

4. Alternative grass cutting options.

Below provides a summary of potential grass cutting options for our parks, greenspaces and verges. It is not exhaustive but includes a range of potentially feasible approaches.

4.1 Parks and areas of open grass:

Option	Description
Amenity cut	12 cuts per year to maintain short grass
Amenity cut – delayed start	Delay the first amenity cut until June/July to allow some spring flowers or bulbs to bloom
Amenity cut – reduced frequency	Between 8 and 10 cuts a year to maintain short amenity grass but slightly reduce cutting frequency
Meadow cut	One cut per season and removal of cuttings
Naturalised grass	1, 2 or 3 cuts per season and no collection of cuttings
No grass cut	Leave the grass to grow long

Where there are 2 or 3 cuts a year, consideration can be given to delaying the first cut to allow bulbs or spring flowers to bloom.

Some flexibility can be applied to the meadow and naturalised grass cutting regimes – at times it may be appropriate to give a meadow area a second cut to reduce weeds; occasionally it might be advantageous to collect cuttings from naturalised grass to reduce thatch.

Associated capital enhancement options include:

Option	Description
Bulb planting	For spring colour – within a naturalised grass cutting regime (2-3 cuts per year)
Meadow creation	Followed by a meadow cut regime (one cut and removal of cuttings)
Woodland creation	With suitable aftercare and no grass cutting
Wetland creation	With suitable aftercare and no grass cutting

A mix of the above options could be considered within a given site, to help meet a variety of social, environmental and financial requirements.

4.2 Road verges:

Road verges include both rural verges and verges within urban and suburban areas. Some will be relatively narrow but some verges (particularly in urban areas) will include much wider swathes of grass.

Options	Description
Regularly cut the whole verge	This may be required for some high profile, urban road verges where a more manicured appearance is a priority
Sightlines cut only	Only cut short the width of grass required for safety (sight lines). The size of the visibility splay required will vary from junction to junction. Leave the rest of the verge uncut.

Sightlines cut & naturalised grass	Cut a width for safety/sightlines as frequently as required. Then apply a naturalised cutting regime to the wider verge area - cut once or twice a year without removal of cuttings.
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In addition to the above options the following can be considered:

Options	Description
Timing of cutting	<p>Delay the first verge cut until July -Sept (the later the better). This will allow many plants to flower and set seed.</p> <p>If two cuts are required consider doing one early (c. Feb-March) and the second between Sept-Oct (i.e. not cutting during the main flowering period)</p> <p>See Plantlife's Good Verge Guide</p>
Conservation verges	Identify verges of higher conservation value – avoid cutting during the flowering season and where possible cut in autumn and collect the grass cuttings.
Bulb planting	Plant bulbs on wider, high-profile verges where visual amenity is important or there are significant biodiversity benefits.
Meadow establishment	Establish meadow grass on wider, high-profile verges where visual amenity is important or there are significant biodiversity benefits.
Shrub or hedge establishment	Establish shrubs or hedging on wide verges (away from the road edge), where grass is not required.

Note: For rural road verges the most relevant options are likely to be:

- Cutting just what is needed to maintain sight lines;
- Changing cutting times; and potentially
- Identification and management of a number of conservation verges

5. Considerations

Below are a number of issues to consider when identifying appropriate and preferred cutting options for a given site.

Financial - Approximate costs of the grass cutting options are provided below.

Option	Cost per hectare per year of grass cutting
Amenity cut	£168 Gang mower x 12 cuts £588 Ride on mower x 12 cuts £3,852 Pedestrian mower x 12 cuts
Amenity cut – delayed start	As above (or reduced pro rata if fewer cuts)
Amenity cut – reduced frequency	Pro rata reduction from the standard amenity cut costs (above)
Meadow cut	£500 (by contractor) Where cuttings can be disposed of on site costs will be similar to naturalised grass cutting (see below). Where cuttings have to be removed from site, costs will be significantly higher and will vary depending on the amount of material to be removed to composting facilities.
Naturalised grass	£50 (1 cut per year) £100 (2 cuts per year) £150 (3 cuts per year)
No grass cut	--

(N.b. these costs are indicative and may need to be updated for the 2020-21 season)

It should be noted that most sites will not allow for a straight swap from amenity cutting to some form of long grass management. In areas of long grass some edges, paths etc. will still require more frequent mowing. The per hectare cost savings associated with a change from amenity cutting to a less frequent cutting regime will vary from site to site. As a rule moving larger areas from amenity cutting to more naturalised cutting will provide greater benefits (both financially and environmentally) than smaller areas.

Note: Reduced maintenance input or savings in some areas may allow for increased input in others.

It should be noted that capital enhancement works, e.g. meadow creation, bulb planting and woodland planting may attract external grant funding.

Public perceptions and expectations – Areas of long grass can sometimes give the impression of being un-managed or neglected. Cutting around the edges of long grass areas and cutting paths through them help to maintain a looked-after appearance. Enhancement of long grass areas with bulbs or meadow flowers can also increase the visual amenity. Awareness raising and explaining the benefits of longer grass areas can help to manage public perceptions and reduce negative feedback. There is growing public demand for the Council to manage its land in a more environmentally beneficial and sensitive way.

Environmental impacts - Amenity grass can deliver some limited benefits for biodiversity and climate change. However, areas of longer grass, particularly where they include wildflowers or bulbs, have a significant benefit for wildlife, including our vital pollinators. Many species require long grass and flowering plants for shelter and food. Long grass areas are also more likely to trap particulate pollution (particularly beside roads), absorb more CO², interrupt flooding and runoff, and reduce urban heat effects. Areas of long grass adjacent to or linking up existing habitat such as woodland, other long grass, watercourses or wetlands are likely to be of particular benefit to wildlife.

Woodland – Several areas of amenity grassland have been earmarked for woodland creation in a series of Urban Woodland Management Plans. Implementation of these plans is starting in 2020. However, there remains considerable scope for further woodland, shrub and hedge planting. The forthcoming Carbon Sequestration Study (see below) may well recommend even more woodland planting.

Carbon sequestration – Falkirk Council has commissioned a study to look at the potential for creation of woodland, long grass, wetland and green roofs on council property to help absorb CO², in a bid to reach our ambitious target of net zero carbon by 2030. The changes to grassland management proposed here are expected to complement the recommendations of that report.

Space to play – areas which are well used for informal recreation, kick-about, picnics etc. are unlikely to be suitable for longer grass creation, as this will make such activities difficult. Some areas must continue to be managed as amenity grass.

Natural play – areas of naturalised, long grass and meadow can provide opportunities for informal, natural play and connecting with nature. E.g. by mowing paths through long grass/meadows people can get up close to nature.

Dealing with arisings - For cutting options which include the collection of grass cuttings, consideration needs to be given to their disposal. Options include:

- removal to composting facilities (with a likely disposal cost and increased CO² emissions from transportation);
- baling and removal for hay (only where there is no contamination from litter or dog fouling);
- disposal on-site (not always an option, particularly in more formal settings);
- use in biomass energy production (the viability of this depends on the availability and location of a processing plant);

Cutting options that would leave relatively long or dense cuttings lying on the surface may be unsightly. Increasing the cutting height for long grass areas, will help reduce the amount of arisings produced and, to some extent, conceal these arisings in the remaining grass sward.

Scheduling - Long grass cutting may be problematic if all sites need to be cut within a short period of time (e.g. late Aug-Sept). While it is beneficial to leave long grass while flowers are blooming, cutting can take place throughout Spring - Autumn inclusive. While some sites may specifically need an Autumn cut, others can be programmed to suit the availability of machinery and manpower.

Training and equipment – longer grass management requires particular types of mowers. Where cuttings are to be collected a mower with a collection hopper is required. Falkirk Council has this machinery available, however the proportion of different mower types may need to change in future as grassland management changes. Training and awareness raising about the methods and benefits of longer grass management can be provided in-house.

Dog fouling – there is some anecdotal evidence that people are less likely or able to pick-up after their dog in long grass. However, it is not clear that dog fouling in long grass is more of a problem than on amenity grass. Few people choose to walk through longer grass, instead keeping to surfaced or mown paths.

Litter – There is no evidence from current meadow or long grass sites that litter is more of a problem than for amenity grassland. However, continued litter collection is likely to be required at sites that are fully or partially converted to longer grass.

6. Options – appropriate location types and key considerations

The table below shows the identified grass cutting options, the types of location where they are likely to be most appropriate and the key considerations associated with them.

Option	Description	Appropriate location types	Capital enhancement options	Comments/ considerations
Amenity cut	12 cuts per year	<p>Areas where recreational use, kick-about, picnics etc. require short grass. Most formal parks are likely to require an area of short amenity grass.</p> <p>More formal areas of garden/park where a 'gardened' appearance is required.</p> <p>Beside paths and around the edges of more naturalised areas to provide a 'managed' appearance.</p> <p>Areas where short grass is required for sightlines/safety.</p>	None	<p>Costs per hectare vary depending on the range of machinery used at each site.</p> <p>However, this tends to be the most costly approach to grass management.</p>
Amenity cut – delayed first cut	Amenity cutting with the first cut delayed to June or later.	<p>Areas requiring short grass for visual amenity reasons, but where the provision of this can be delayed until later in the year (e.g. some grassland patches in residential areas.)</p> <p>Areas requiring short grass for summer/autumn activities (galas, picnics etc.) but where cutting can be delayed.</p> <p>Areas enhanced by bulb planting or spring flowers, to provide visual amenity, where cutting can then be delayed until after the bulbs have died-back. (e.g. highly visible, wide road verges)</p>	Bulb planting	<p>This is already done in a limited number of sites where bulbs have been planted.</p> <p>Covid-19 lockdown in spring 2020 resulted in a delay to amenity cutting. Public feedback suggested many residents enjoyed the spring flowers that bloomed as a result.</p>

Amenity cut – reduced frequency	8 to 10 cuts per year	Most areas of amenity grass, where a slight reduction in cutting frequency will not significantly impact on its use or visual amenity.	None	Likely to deliver a pro rata reduction in costs compared to amenity grass cut 12 times a year.
Meadow cut	One cut (usually between late August-October) and removal of the cuttings.	<p>Lower key areas where visual amenity and natural play can be provided by meadow during spring-autumn and rougher cut grass is acceptable during autumn/winter.</p> <p>Lower nutrient areas are particularly suited to meadow creation.</p> <p>Areas where meadow will provide an important habitat area or part of a wider habitat network or wildlife corridor.</p> <p>Smaller strips of meadow associated with larger areas of naturalised grass.</p>	Meadow cutting on previously amenity grass will result in the natural appearance of some flowers. However, visual and biodiversity benefits will be greater with meadow sowing.	<p>Larger areas of meadow are generally more cost effective than smaller areas.</p> <p>Whether cuttings need to be taken off site or not will impact significantly on cost.</p> <p>Strips of meadow could be created in front of or around larger areas of naturalised grass to increase visual and biodiversity benefits while limiting the amount of cuttings to be removed.</p> <p>An additional cut (with no removal of cuttings) can be applied to meadow areas to reduce the grass height and inhibit weed growth. This would be applied as needed on an ad hoc basis.</p>
Naturalised grass (1, 2 or 3 cuts)	1, 2 or 3 cuts per season and no collection of cuttings	<p>Informal and low key grass areas.</p> <p>Some less formal parts of parks and greenspaces.</p> <p>Wide grass verges (excluding visibility splays).</p>	Bulb planting / robust wildflower establishment	The visual impact of leaving cuttings in situ would need to be monitored in year 1 and might impact on the number of cuts proposed thereafter.

				<p>The number of cuts would depend on the type of vegetation present and the type of finish required.</p> <p>Cutting short grass around the edges of naturalised areas helps to make them look managed.</p>
No grass cut	No grass cutting	<p>Areas where visual amenity is not a significant concern and natural succession to rank grass and scrub is acceptable.</p> <p>Areas where alternative land management (e.g. woodland or wetland) is planned instead.</p> <p>Areas that cannot be safely cut or where it is prohibitively expensive to cut.</p>	<p>Woodland creation</p> <p>Wetland creation</p>	Woodland creation will form an important part of recommendations for carbon sequestration on council land.
Verge – high frequency cut		High profile grass verges where a manicured appearance is desirable.		
Verge – sightlines cut only		<p>Lower key verges where grass cutting is only required to ensure the safety of drivers so can focus on the strip adjacent to the road only.</p> <p>Less formal verges.</p> <p>Rural verges.</p>	On wider verges planting of shrubs or hedges towards the rear can reduce the area of grass to be maintained and have environmental benefits.	
Verge – sightlines cut and naturalised grass on the rest of the verge		Wider verges where visual amenity requires some management of the whole verge but much of the grass can be more naturalised, with only the strip nearest to the road cut more frequently.	Meadow establishment, bulb planting, or wildflower establishment could all be used on wider verges where higher visual amenity is required. These also have environmental benefits.	

Timing of verge cuts	First cut July - Sept (the later the better) Or one early cut (Feb-March) & a 2 nd cut Sept-Oct	All verges (except where a more manicured appearance is required for visual amenity and where road safety requires earlier or more frequent cutting).		Ideally cuttings would be removed, however this is likely to be unfeasible except in a limited number of specific cases of important conservation verges (see below).
Conservation verges	Delayed cutting times and (potentially) removal of cuttings.	Specific verges which have been identified as of high conservation importance could be managed for biodiversity – with appropriate cutting times and removal of grass cuttings where feasible.	Planting of additional native species and signposting as conservation verges may also be beneficial.	This may be more costly than current management and would only be considered where it would have significant biodiversity benefits.

7. Recommendations

It is recommended that changing our approach to grass management is done in two phases.

Phase 1 : changed maintenance, switching areas from amenity grassland to a range of the above alternative options, on selected pilot sites.

A study commissioned by Planning and Environment and done by Grounds Maintenance has already assessed a number of potential pilot sites where changes to grass maintenance (similar to the options outlined above) could be trialed. Site selection considered a wide range of strategic, social, environmental and design factors to produce a shortlist of pilot sites. These sites can form part of a first phase of changes to grassland maintenance. The pilot sites identified by the study are listed in [Appendix 1](#) and examples of the proposed changes in [Appendix 2](#).

Given the growing impetus for change and the range of sites now being considered, it would be appropriate to increase the number of sites included in this first phase. This would also provide an opportunity to include a wider variety of sites including road verges and grassland around residential and business properties. A number of proposed additional pilot sites are listed in [Appendix 3](#).

As far as possible Phase I sites should be identified and changes made as soon as possible, with all cutting changes in place by spring 2021. Additional enhancements such as meadow sowing, bulb and tree planting may take place at appropriate times throughout 2021 and early 2022.

This approach means we can:

- Test the options and adjust them if necessary prior to wider rollout;
- Identify any additional machinery, training or capacity issues prior to wider rollout;
- Raise awareness and understanding of the benefits of change prior to wider rollout;
- Measure the environmental, social and financial impact of different options prior to wider rollout.

Discussions will take place with roads during Autumn/winter 2020 to try to identify an additional suite of pilot road verge sites where changes can also be made and monitored.

Phase 2 : Roll out the new grass maintenance approach to all appropriate sites

A review of the phase I sites in spring 2022 will identify any changes required and any equipment or capacity issues that need to be addressed. It will also measure the success of the changes at the pilot sites (based on agreed measures of success – see [Appendix 4](#)). If deemed successful the new approach to grass maintenance will thereafter be rolled out to all appropriate sites by grounds maintenance staff, with support from Planning and Environment and other account holders.

It is anticipated that the revenue cost implications of changes in maintenance will be absorbed by existing Grounds Maintenance budgets (and Roads budgets in the case of rural road verges). Enhancements such as meadow creation, bulb planting, woodland creation etc. will require capital funding and may also attract external grant funding.

Appendix 1

Pilot sites for changed grass maintenance – as identified in grounds maintenance study 2018.

Site/Location	Identified Area	Notes	Grass cutting proposal
Kinnigars Park, Bo'ness	2.7 ha	Open park land on slope has visible desire lines which would suit mown grass paths natural grassland would bring biodiversity and interest, tree planting merging into existing woodland without obstructing current views	Naturalised grass (2ha) within the centre of the site. Woodland creation Potential to create some strips of meadow grass – with cut, lift and disposal of cuttings on-site
Princes Park, Falkirk* <i>*A meadow has since been created here and further changes at this pilot stage are not recommended</i>	2.8 ha	Open park land on slope surrounded by low density housing, site has drainage issues causing grass cutting issues, natural grassland would enhance area while grass paths connect access points	No further changes proposed at present.
Herbertshire Park, Denny	1.4 ha	Trees would blend into existing woodland and provide screening to rear of cemetery there is no access to cemetery from this site, grass paths would encourage recreational use	Naturalised grass - 1 cut Potential to create some strips of meadow grass – with cut, lift and disposal of cuttings on-site Woodland creation
Haypark, Head of Muir.	0.8 ha	Site has low density housing nearby sports pitch would be unaffected, site has primary school nearby, visually a change of maintenance would improve this site	Naturalised grass (0.75ha) in the northern half of this site. Mown path to allow access through this part of the site.
Camelon Public Park, Falkirk* <i>*A meadow has since been created on this site although there is still some scope for more longer grass areas and mown grass paths.</i>	1.1 ha	Park sits in hollow between Forth & Clyde Canal and Camelon Main Street, poor drainage is an issue, site is a shortcut by high school pupils	Naturalised grass in western section of park – 1-2 cuts Naturalised grass on slope – 1-2 cuts (bulbs have already been planted in this area)
Drum Road, Bo'ness	0.4 ha	Site is at east entrance of Bo'ness wildflowers would create good first impression, site is near high density housing and main road	Block of naturalised grass in the centre of the plot (potentially for meadow strips around the edge of this).

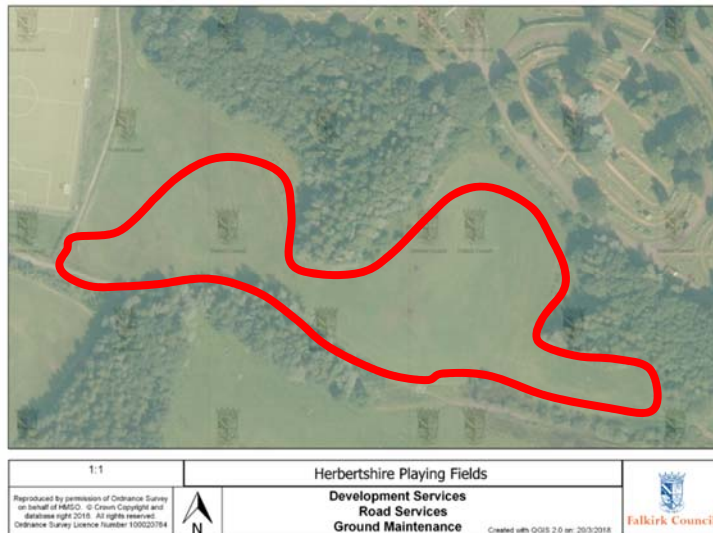
Dollar Park Falkirk	0.9 ha	Area in park identified is on sloped area at rear but may be resistance from park users/friends group with perceived reduction in maintenance	Naturalised grass area in northwest. Meadow - Meadow strip around edge of naturalised grass (disposal of cuttings on site)
Stenhouse Park, Stenhousemuir.	0.7 ha	Park is bordered by main road and high density housing has historically been used recreationally by children	Naturalised grass area in the centre/south of the park, with mown path. Plant trees along fence line parallel to Stenhouse Road.
Gilston Crescent, Polmont	1.3 ha	Only green space available in low density residential area alternative public open space is across busy main road	Naturalised grassland and woodland planting (Note: this site is shown in the Urban woodland management plan for woodland and natural grassland creation)
Braes View, Denny	0.6 ha	Site adjacent to high density housing, rear access to gardens would be an issue	Naturalised grassland (1-2 cuts) between houses and motorway (keeping play area and surrounding grass on regular maintenance).

Appendix 2: Example of changed cutting regime - Herbertshire Playing Fields

Location;

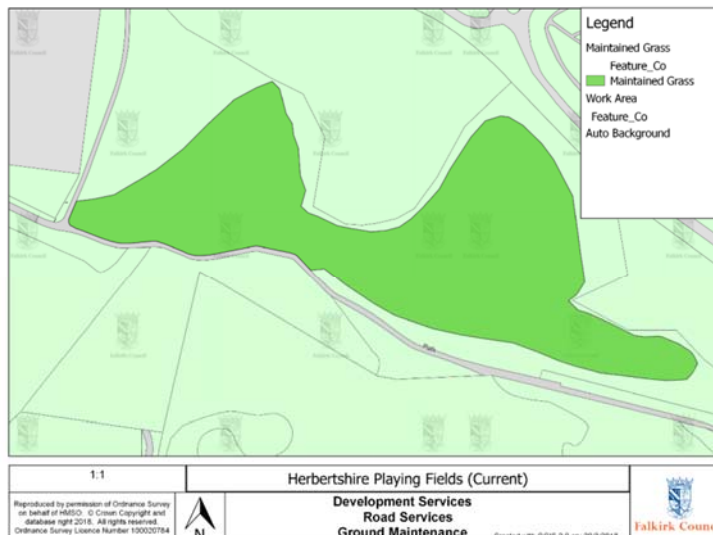
Herbertshire Playing Fields, Denny.

Comments; Public open space located to the south of Denny Cemetery and adjacent to Denny High School.



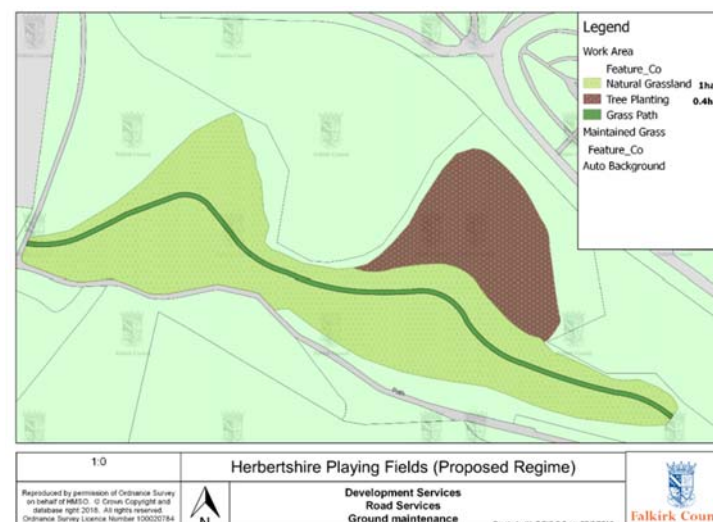
Current Regime;

This area is maintained as part of Falkirk Councils general grass maintenance program scheduled between March to October



Proposed Regime;

Plant trees merging into existing woodland, reduce grass cutting to create a natural meadowland with a 2 metre mown grass path to allow public access.



Appendix 3: Proposed additional pilot sites

Site/Location	Notes	Grass cutting proposal
Finlay Russell Park, Stenhousemuir	Area of grass in south end of park. Several strips of meadow have already been created as well.	Naturalised grass in south of park excluding kick around area and play park area) Meadow cut - several existing strips of meadow (cut and dispose of cuttings on site).
Gray Buchanan Park, Polmont	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Large blocks of naturalised grass in the northern part of the park – 1 or 2 cuts a year. Potential to include strips of wildflower meadow and dispose of cuttings on site.
Gala Park, Denny	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Large block of naturalised grass within the middle of the park. – 1 – 2 cuts per year.
Laurie Park, Brightons	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Naturalised grass areas around the edges of the park – 1-2 cuts per year Potential for bulb planting in places.
Zetland Park, Grangemouth	Meadow areas identified in project masterplan and left uncut this year.	Meadow cut - cut and remove arisings from site. (As per the project masterplan)
Ash Park, Banknock	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Naturalised grass areas - 1-2 cut a year. Suggest no cutting on the steep slope. Existing meadow - cut and remove cuttings from site.
Crownest Park, Stenhousemuir	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Naturalised grass areas – 1-2 cuts a year. Small meadow areas – cut and dispose of cuttings on site Potential for bulb planting on slopes.
Duncan Stewart Park, Bonnybridge	Long grass areas identified to grounds maintenance, but future cutting regime still to be decided	Naturalised grass on slopes above the play area and near to the burn- 1-2 cuts per year.
Anderson Park, Denny	Community interest in creating a meadow area.	Detail to be discussed with community representatives Jan 2021.
Corrie Park / Chapel Burn corridor	The community have expressed interest in creating meadow areas. These could be created as strips in front of large areas of naturalised grass.	Naturalised grass – 1-2 cuts Meadow – cut and dispose of cuttings on site. (Potential for community led meadow creation).

Stirling Rd Playing fields	Creation of meadow strips in front of larger areas of naturalised grass – to be done autumn 2020. Naturalised grass on sloped area.	Naturalised grass – 1-2 cuts Meadow strip - cut and dispose of cuttings on site
Sunnyside Playing fields	Creation of meadow strips in front of a larger area of naturalised grass – to be done autumn 2020.	Naturalised grass – 1-2 cuts Meadow - cut and dispose of cuttings on site
Dalgrain Road (East Side)	Tree Belt to be left as naturalized grass. Possible bulb planting?	Naturalised grass - 2 cuts Potential for bulb planting.
Beancross Road from Newland Roundabout to Cadgers Brae Roundabout	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass – 1-2 cuts Potential for bulb planting/wildflowers.
<i>Portal Road (Tree belt area)</i>	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass – 1-2 cuts Potential for bulb planting/wildflowers.
Burnbank Road from Newlands Road to Portal Road end	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass – 1-2 cuts Potential for bulb planting/wildflowers.
Tamfourhill Industrial Estate. Area bordering Lime Road but in the estate itself.	To be left as naturalized grass.	Naturalised grass – 1-2 cuts
Easter Carmuir's Park area at the top of Ochiltree border also on Glencairn and Kenmuir Street	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass <i>(NB should double check with the Easter Carmuir's park Phase 2 development project first)</i>
Blinkbonny Park ,off Windsor Road	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass – 1-2 cuts Potential for bulb planting/wildflowers. Check potential for meadow strips (if cuttings can be disposed of on site)
A9 ,North Distributor	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass- 1-2 cuts
Laurieston banking across from Benny T's	To be left as naturalized grass. Possible bulb planting/wild flower	Naturalised grass- 1-2 cuts

Roadside (wide) – New Carron Road, Stenhousemuir		Naturalised grass- 1-2 cuts
Roadside (wide) - Hallglen	Areas have been taken out of cutting this year.	Naturalised NB - check if any cutting is required
Roadside (wide) – Beancross road	Areas have been taken out of cutting this year...	Naturalised NB - check if any cutting is required
Roadside (wide) – Glenfuir Road	There are already plans to do bulb planting in parts of this grass area this autumn.	Naturalised grass – 1-2 cuts Bulb planting
Road verge (wide)- opp Falkirk High School	There are already plans to do bulb and tree planting in parts of this grassed area and to leave areas of longer grass as part of a Buglife project.	Naturalised grass – 1 cut Bulb and tree planting
Rural road verges	Further discussion with Roads is required to identify pilot verge sites where cutting regimes can be reduced and areas of naturalised grass left.	Further work required (winter 2020) to identify pilot sites.

At appropriate locations the revised amenity cut options (i.e. a delayed first cut and/or a reduction in cutting frequency to between 8 and 10 cuts per annum) will be applied to areas of retained amenity grass within the pilot sites.

Appendix 4 – Measures of success for pilot phase

	Success will look like:	How we measure it:
Financial	Overall the changes provide a revenue cost saving (this excludes the cost of optional capital enhancements like bulb planting).	Comparison of previous management costs and 2020-21 season management costs per site and overall.
Environmental	Pilot sites provide improved habitat for biodiversity – indicated by an increased variety of plant and animal species present.	Wildflower and invertebrate surveys of a sample of the pilot sites and comparison to similar control sites where management has not changed. Improved connectivity of natural areas due to changes in grass management (based on interrogation of maps).
	There is a net reduction in CO ² emissions (based on reduced emissions from maintenance activity and increased CO ² sequestration capacity).	Estimated change in CO ² emissions from maintenance activity (vehicles and machinery). Estimated change in CO ² sequestration capacity resulting from the altered habitats at the pilot sites.
Social	Safety requirements continue to be met.	Visibility splays are maintained. Problems with litter, dog fouling or anti-social behavior do not increase as a result of the pilot (measured by public feedback and site assessment). Or where they do increase the problems are successfully addressed.
	Residents continue to have access to open spaces which provide them with opportunities for informal recreation (walking, kickabout areas, picnics etc.) community event spaces (galas etc), exercise and other health & wellbeing benefits.	Public feedback Where feedback and subsequent assessment of a site suggests it has lost a particular social function (e.g. space for informal play) – the openspace strategy should show that there is appropriate alternative provision within an acceptable distance?
	There are increased opportunities for natural play and discovering and enjoying wildlife.	Assessment of the area of natural habitat (e.g. long grass) created and safely accessible for play and wildlife discovery.
Logistical	The altered cutting requirements (including the timing of cuts) were deliverable with the resources (staff capacity, machinery etc.) available.	Identification of any works not completed as required and the reasons for this.
Communication	Good communication helped to explain the reasons for and benefits of the changes at pilot sites.	Range of communication tools used. Public feedback.