

Biodiversity Member Workshop 24.01.2023

**Environment & Economy Overview &
Scrutiny Committee**

Agenda / Format for the Workshop

- Welcome and introductions
- Purpose and background to the workshop
- The nature emergency and importance of local biodiversity
- Grassland habitat requirements
- Nature isn't Neat: addressing key concerns
- Use of Pesticides
- Flintshire action to date: our support for changes
- Overview of the existing grass cutting policy and opportunities: road verges and amenity grasslands
- Interactive session / Q&A
- Summary and Next Steps
- Machinery demo

Purpose and background

- Environment & Economy Overview & Scrutiny Committee forward work programme
- Member enquiries
- Climate Change and Reducing Carbon Footprint
- Well-Being of Future Generations (Wales) Act
- Flintshire Climate Change Strategy (Feb 2022)
- Climate Change Programme Board
- Council Plan – Green Council
- Joint portfolio workshop – one Council

The importance of local biodiversity

A nature crisis

- The UK is among the most nature depleted counties on the planet
- On average populations of mammals, birds, amphibians, reptiles and fish have dropped by 69% since 1970
- 1 million species are threatened with extinction , many within decades

“The damage we are inflicting on species and ecosystems is so extensive and profound that scientists now believe we are witnessing Earth’s sixth mass extinction event—the last one marked the end of the dinosaurs.”

—David Attenborough

Exhibit 3 - Five Major Factors Drive Biodiversity Loss

1

Land-use and sea-use change

Habitat conversion (e.g., deforestation), habitat fragmentation, and degradation through overintensive use of ecosystems

2

Direct overexploitation

Overexploitation of animals, plants, and ecosystems in general (e.g., from poaching, unsustainable logging, or overfishing)

3

Climate change

Shifts in temperature, precipitation, and wind flows caused by increased levels of greenhouse gases in the atmosphere

4

Pollution of soil, water, and air

Release of harmful substances (e.g., through excessive chemical use) into ecosystems; also, light and noise pollution

5

Spread of invasive species

Plants, animals, or other nonnative organisms entering or expanding their presence in a given habitat

Source: IPBES, "Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services" (2019)
(Ref: The 2023 BCG report: *The biodiversity crisis is a business crisis*)

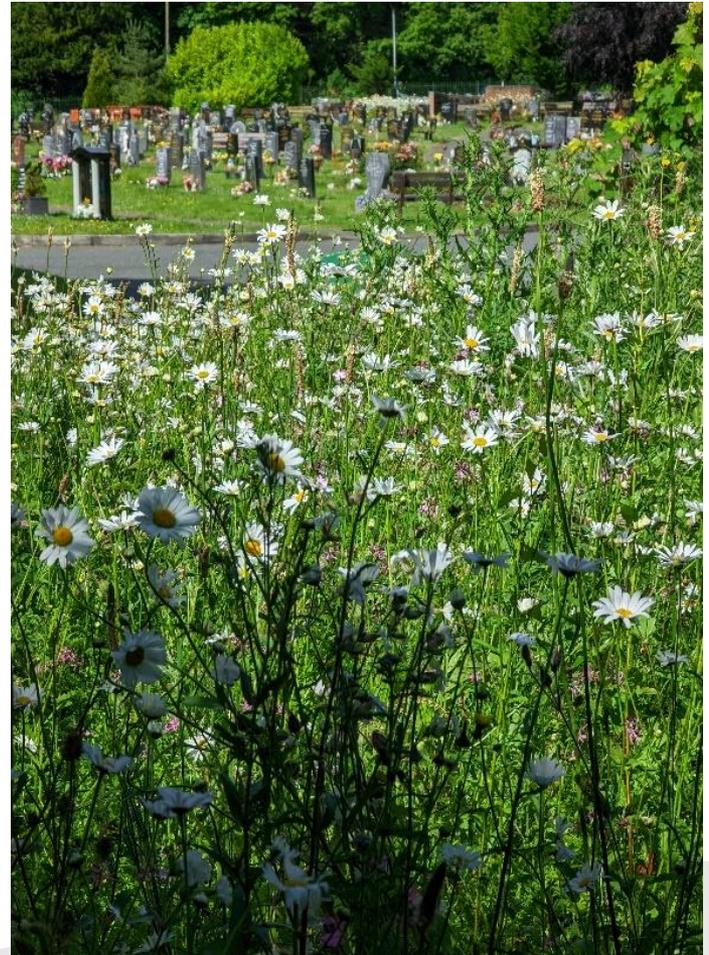
The importance of nature

Ecosystem services:

- Clean air and water
- Healthy soil
- Pollination and Food
Decomposition
- Water regulation

Health and Wellbeing:

- Improved mental and physical health



Biodiversity related risk

Risks of inaction

- Breakdown of ecosystem services, flooding food supply chains
- Increased regulation and associated costs
- Reputational risk



Does it matter if we lose species?

- Loss of species from an ecosystem likened to randomly popping out rivets from the wing of an aeroplane
- Remove one or two and the plane will probably be fine
- Remove 10/20/50 = catastrophic failure
- Nature loss – creeping normality due to its reduction and our disconnection



The Hazel dormouse in Flintshire

Species decline is evident locally



The Hazel dormouse: Decline

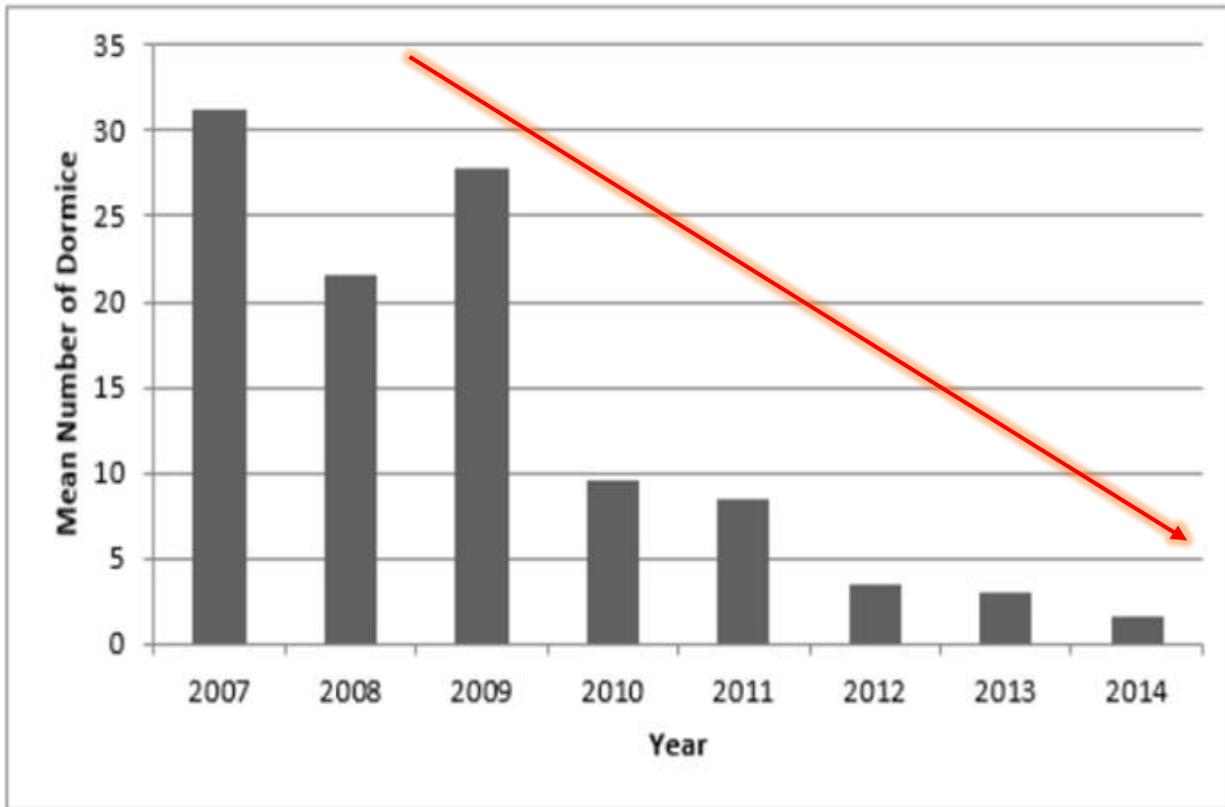


Figure 3.1 shows the average for all the sites each year, this shows that there is a steady decline in the *M. avellanarius* population in Flintshire with a peak in the mean count in 2009 of 27.8.

Nature legislation and policy



- Legislation
- Regional Plans and Policies
- Flintshire Plans and Policies
- COP 15 – 30% of our land by 2030
- Welsh Biodiversity targets forthcoming

Local Action and Impact

- £450,000 in grant funding for biodiversity projects and temporary staffing enabled:
- >5000 trees
- 100 swift boxes
- T/C Councils nature suggestions
- Greener development conference
- housing maintenance works to incorporate biodiversity features
- contaminated land for biodiversity
- Regional biodiversity awards (4/7 Flintshire winners)
- School nature proposals
- Burial sites survey/nature proposals
- Ongoing: Flintshire forest, green infrastructure, Streetscene



We can enable success through:

- Collaboration
- Working across departments
- Working across sectors
- Being open to change
- Fostering political and public support

“What you do makes a difference, and you have to decide what kind of a difference you want to make.” Dr Jane Goodall



Overview of Grasslands and Management in Flintshire

Wildflower Meadows

Wildlife meadows have suffered catastrophic declines. Between the 1930s and 1980s, 97% were lost across England and Wales

Traditionally grasslands are managed by grazing and the collection of hay. This avoids enrichment and maintains an abundance of wildflowers.

Introduction of fertiliser and intensive grazing or silage management meant vigorous grasses survived and wildflowers disappeared.



Value of Verges

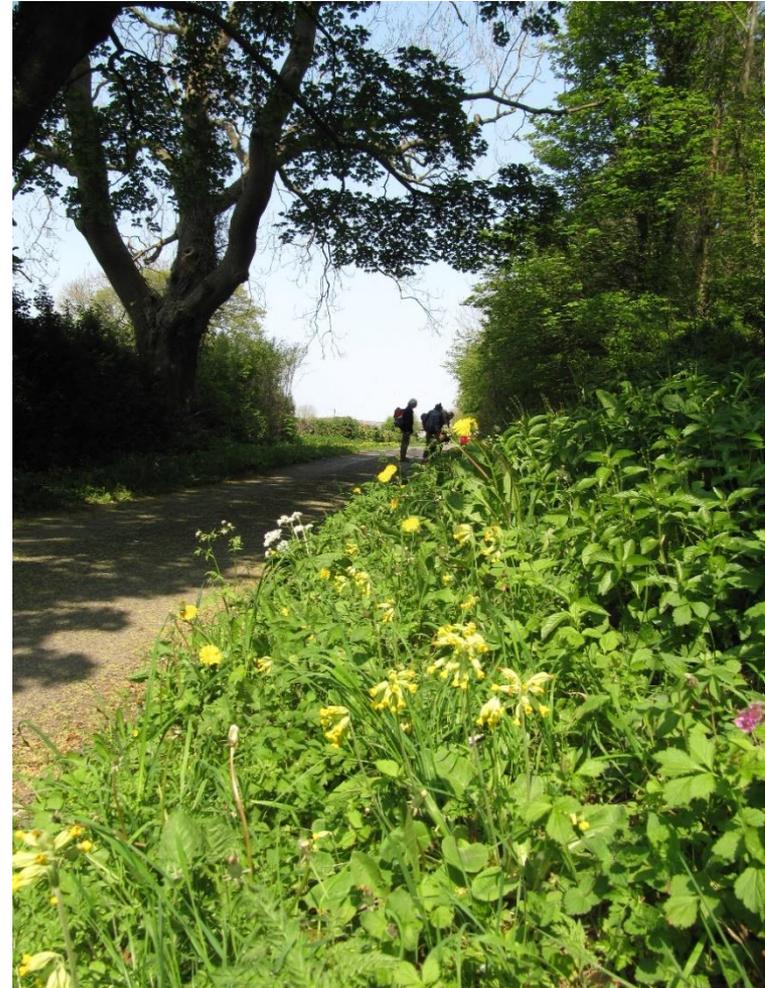
- » The 500,000 kilometres of road verges that span the UK are equivalent to half of the remaining flower-rich grassland. (Plantlife 2019)
- » Road verges are a vital refuge for wildlife, including 45 per cent of our flora.
- » Wildflower-rich meadows and grasslands are a crucial reserve for declining pollinators.
- » Permanent grasslands including wildflower-rich meadows are an important store of carbon
- » Permanent grasslands can reduce the impact of flooding.





Natural Connections

- » Verges act as corridors and stepping stones for wildlife
- » They provide people contact with their natural environment
- » Science tells us we are healthier and happier around nature.



Amenity Grassland Management

- » **Mown grassland has minimal wildflowers and the lack of structure means there is very little refuge for wildlife.**
- » **Short grassland can be transformed into a wildflower meadow by reduced cutting**
- » **New grasslands can be created through the use of wildflower seed BUT.....**



To manage or not?

- » Most wildflowers are associated with low fertility soils.
- » No cut results in an increase in tall grasses and herbs such as Nettle and Hogweed and bramble.
- » If cut and left, the cuttings lead to an increase in nutrients and the tall grasses dominate.
- » Use of herbicides has a similar effect.
- » Cut and collect reduces the layer of thatch and opens up the soil surface to allow seed germination. If repeated slower growing species are encouraged that over time require less management



Timing of management

- » **Vital that wildflowers are able to complete their life cycle and set seed.**
- » **Verges with woodland spring flowers have an earlier life cycle compared to wildflower meadows.**
- » ***Plantlife 2019: Managing grasslands and road verges***





Legislation and Protected Sites

Environment Act 2016
s6 Biodiversity Duty

Be Aware of designated verges
Buckley Commons SSSI
Halkyn Mountain SSSI
Herward Smithy SSSI



Not alone!

La richesse naturelle de nos routes départementales

Pour préserver la biodiversité des abords de nos routes, le Conseil général du Doubs met en œuvre une méthode de gestion écologique : *le fauchage tardif*

Le Conseil général du Doubs gère 3700 km de routes départementales, ce qui représente également une superficie de plus de 3000 ha de dépendances (accotements, talus), dont la biodiversité doit être préservée. À cet effet, dans une démarche de développement durable, le Département a souhaité mettre en place en partenariat avec le Conservatoire régional des Espaces Naturels (Espace naturel Comtois), un mode de gestion respectueux de la flore et de la faune des talus routiers.

Les talus routiers servent de refuge à de nombreuses plantes et animaux, dont certains très rares et protégés. Plus de 300 espèces différentes peuvent être dénombrées sur les bords de routes, et certaines zones abritent des espèces remarquables telles que l'Ophrys Abeille, une orchidée protégée, et le rare papillon Azuré de la Croisette.

La priorité : concilier sécurité routière et environnement. La première passe de fauchage privilégie la visibilité pour les usagers. Le deuxième fauchage, tardif, permet à la flore d'achever son cycle annuel de développement.

Les enjeux : des routes sûres et fleuries, une biodiversité préservée.



Azuré de la Croisette, inféodé à la Gentiane Croisette présente sur les talus routiers.



Le lézard vert, une espèce protégée

Fauche d'entretien d'un talus routier : les principes du fauchage tardif



Nature isn't Neat

And other concerns

Safety

- Resident and motorist safety will always be our **top priority**
- Internal consultation process



Recreational Use

- All P1 sites are excluded from reduced mow
- Consider impact on recreational use of a space
- Healthy and diverse places which encourage recreational use.



There is no scientific evidence to suggest long grass encourages parasites

- The presence of ticks related to deer/livestock, than type of vegetation
- Ticks associated with damp habitats
- Study evidenced longer lawns with no ticks

Small Mammals

- Improving biodiversity, Creating habitat for nature
- That includes small mammals, some species prefer longer grass' whereas others do not.
- Small mammals are attracted into homes by food and shelter

Fire Risk

- Wildflower or reduced mow areas will not accumulate a thick grassy thatch which increases biomass and fire risk due to the cut and collect management
- In cases of extremely dry summer weather fire breaks can be cut in larger areas of long grass

Behaviour

- Concerns regarding behaviour associated with longer grass/wildflowers include:
 - Antisocial behaviour
 - Litter
 - Dog fouling
- Need to address the cause of the problem not the symptom
- Creating nature devoid places will not solve behavioural issues
- Support improved behaviour at sites

Neatness

- Biggest concern when consulting on reduced mow or wildflower areas
- Perspective
- Short mown lawns: social norm associated with being cared for, neat, security and wealth

Perception



Nature isn't neat

But we can demonstrate that sites are cared for and intentional and promote the multiple benefits

- Appropriate locations
- Mown borders and desire lines
- Reduced management is clearly intentional
- Interpretation/Signage
- Member consultation





B5126
Connah's Quay, Wales
Google
Street View - Oct 2018

Visual site comparison



B5126
Connah's Quay, Wales
Google
Street View - May 2022

Mown paths



Mown borders and signage



Public opinion

Having had so many likes and comments from people about the beautiful verges and field of wildflowers planted in Buckley by our CC. I agree we need this to be spread more widely. We have many areas to fill. I have put the video here I took so those who haven't seen the flowers can see them in their full glory.

#saveourwildlife#
#saveourbees#



75

10 comments 2 shares

Had a good look other day when bringing dog back through town. It was really calming for me felt like a little escape for couple mins

Walk past them every day walking the dog 🐕

They are doing this all over Flintshire now and it is a brilliant idea.

That looks stunning !! 🥰

Off to Mold later along the Mold road so yes I will make sure I see all those lovely wild flowers as I pass along . 😊

Beautiful well done 👍

They have done this on the field over the bridge street field it looks beautiful xx



Flintshire Council

16.2K Tweets

Following



Flintshire Council @FlintshireCC · Nov 29



This autumn we've sowed wildflower seed on a number of road verges and roundabouts in Flintshire! By creating more meadows we are helping to address the climate and ecological emergency.

Watch out for an explosion of colour next summer on these new mini-meadows!



19

49

349





Key messages:

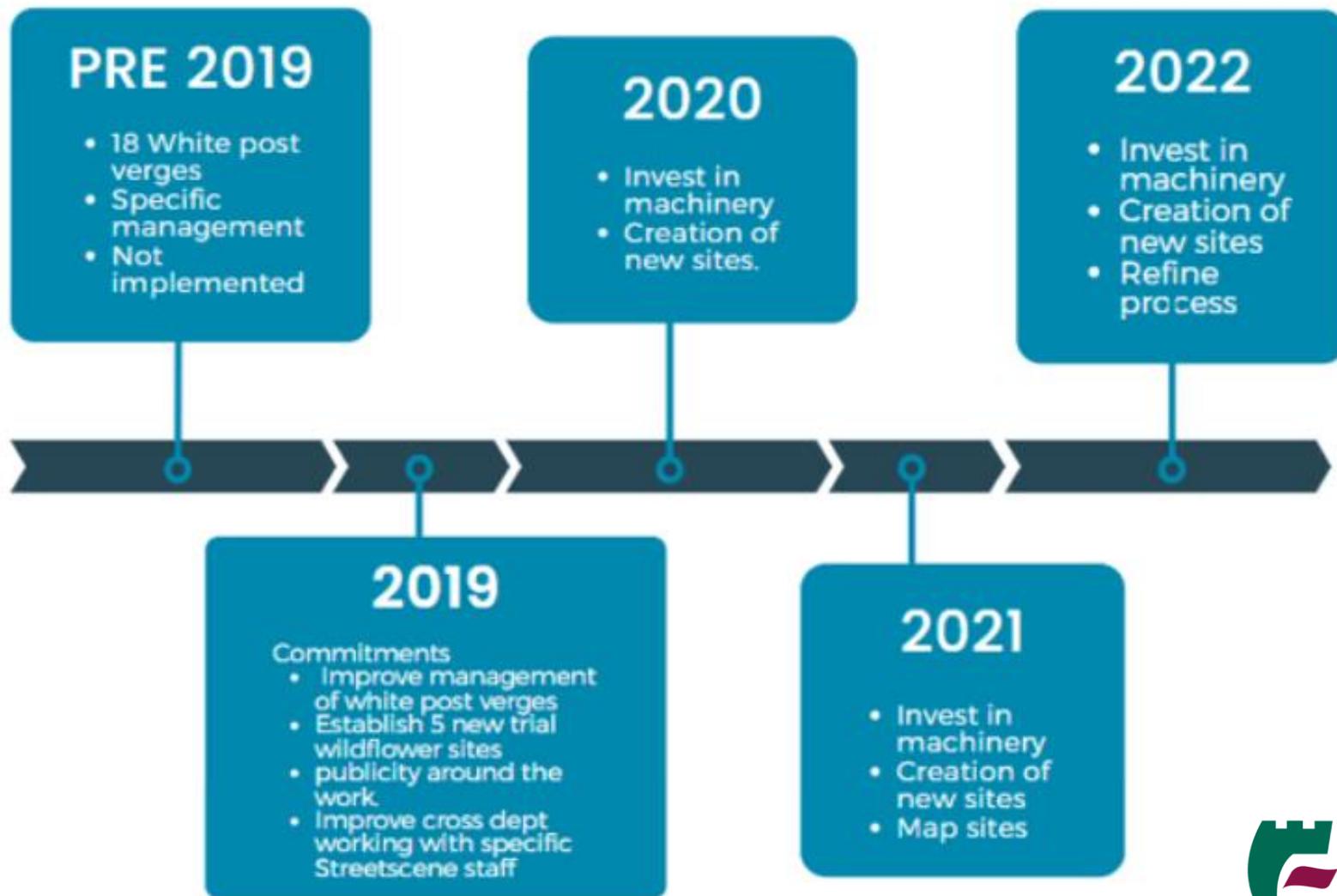
- Safety first – Always
- Consideration of existing site use
- Understanding and promoting the big multiple benefits of our actions - which go beyond neat and tidy

Thank you

Flintshire wildflower sites and grassland management

Action to date: An overview

Timeline



Our Approach

Our approach aims to support meadow restoration by;

- Limiting seed introduction to urban sites with low existing diversity

(The best approach for nature is to improve grassland diversity gradually through the correct management)

However

- **There is value in** the burst of colour, the quick results and impact of seeding especially in high visibility / footfall sites

Types of wildflower sites

A balance

- **Created sites:** Seeded or wildflower turf (restricted to urban sites with low existing wildflower diversity)
- **Reduced mow sites:** We allow the grass and wildflowers to grow with the aim of long term restoration to flower rich meadow
- **Naturally diverse sites:** We support restoration to flower rich meadow

Wildflower



Seeded



Initial Reduced mow

After a few years of reduced mow with cuttings collected

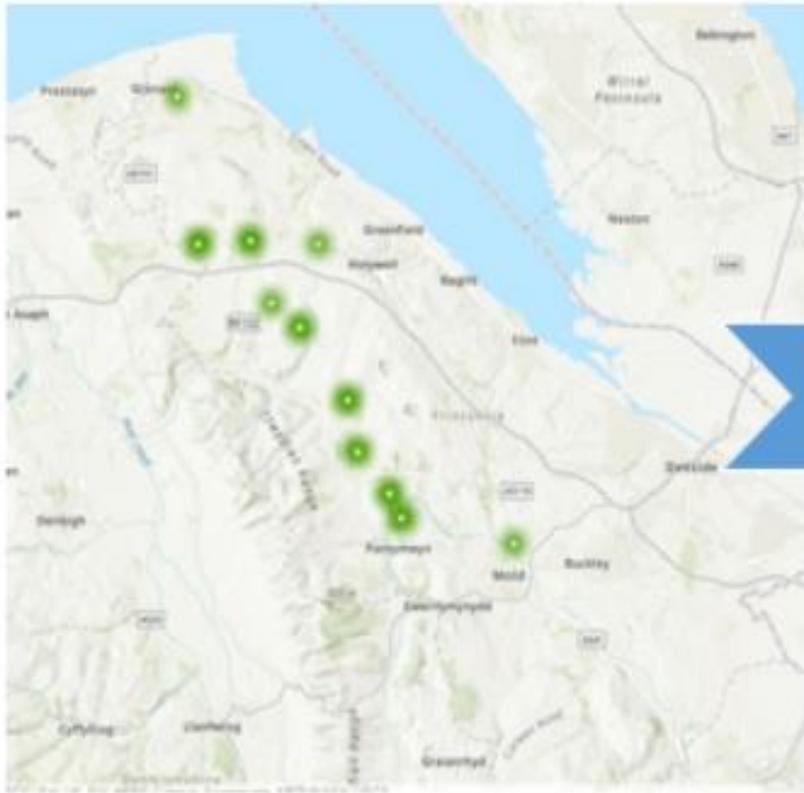


Hawarden



Wepre

Sites



Pre 2019
to 2022



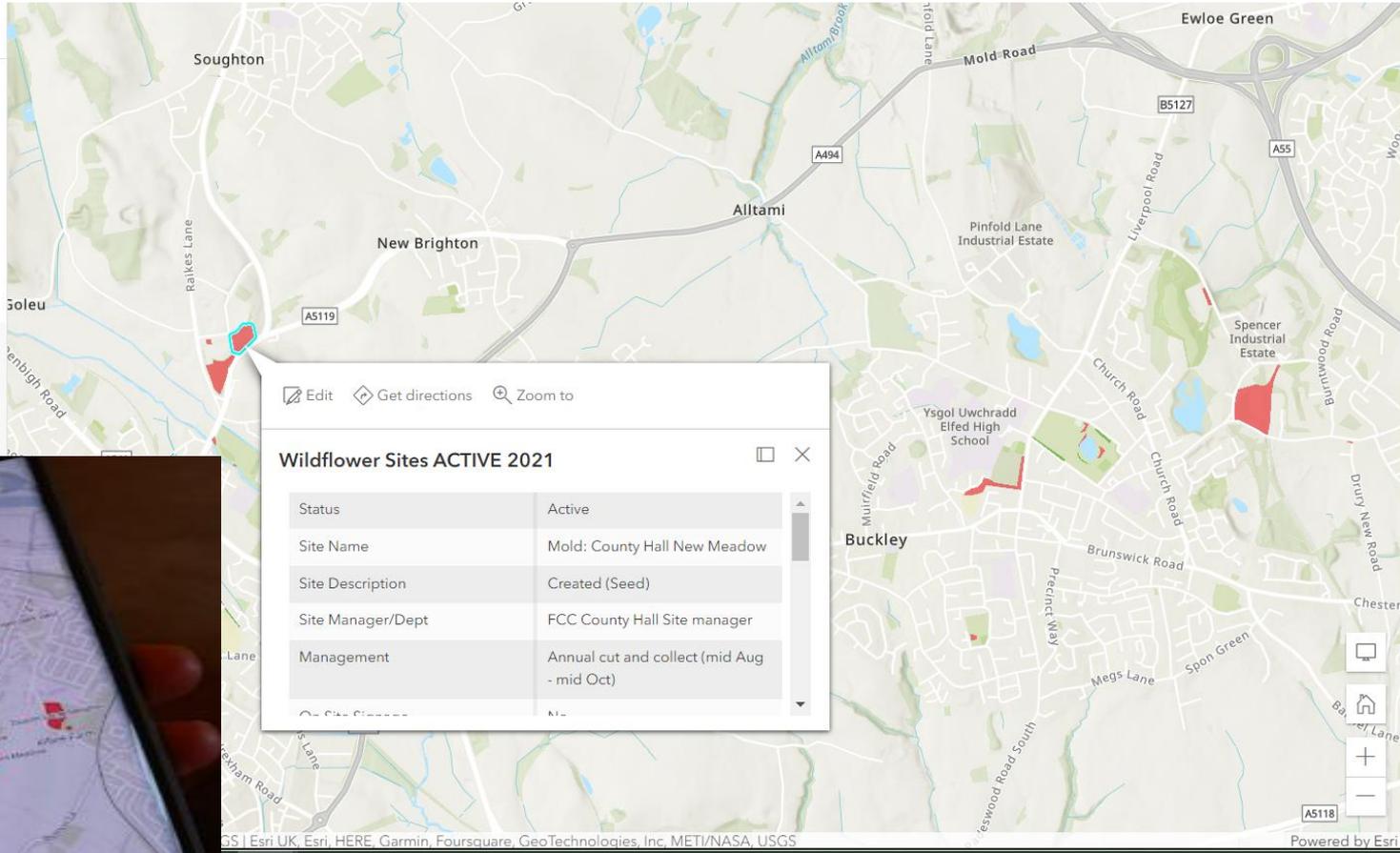
Sites

Legend

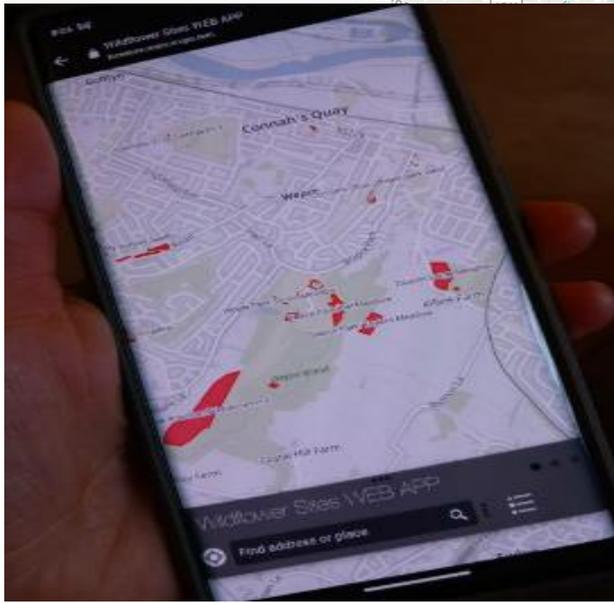
Wildflower Sites

Status

- Active
- Proposed
- Ongoing
- On Hold

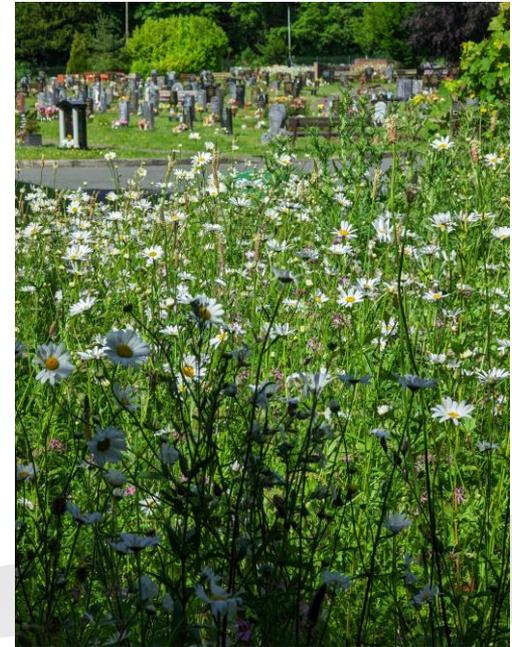


Wildflower Sites ACTIVE 2021	
Status	Active
Site Name	Mold: County Hall New Meadow
Site Description	Created (Seed)
Site Manager/Dept	FCC County Hall Site manager
Management	Annual cut and collect (mid Aug - mid Oct)

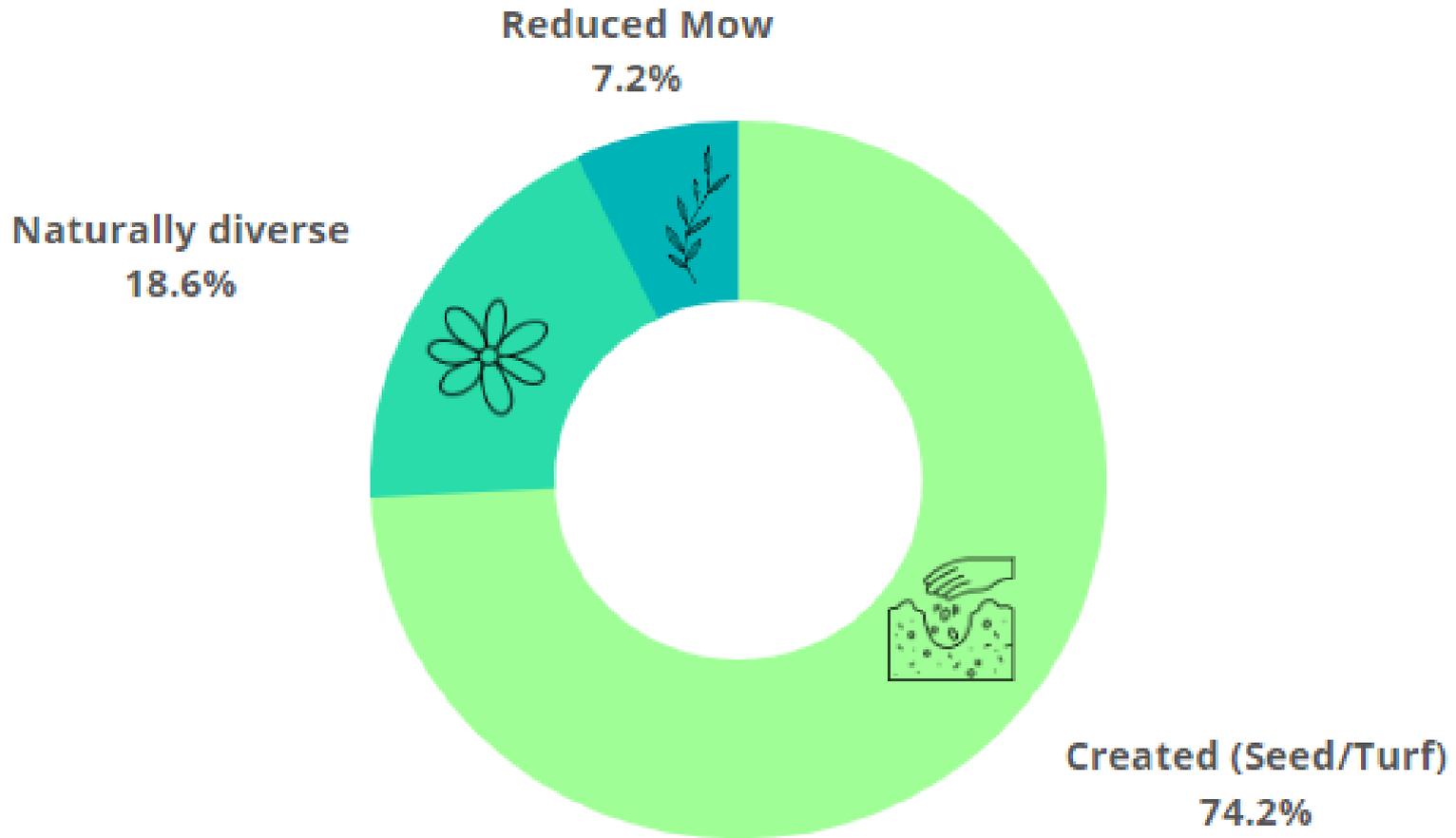


Sites

- 98 sites
- Area 11.8Ha
- 69 Sites /8.6Ha managed by Streetscene
- 4.3% Streetscene maintained ground being managed for biodiversity



Wildflower site type



Resources and Capacity



Education and Engagement

- All sites have Oak marker posts
- Public response: overwhelmingly positive
- No Mow May publicity well received
- A public green spaces survey was undertaken in 2022.

Headline statistics received are as follows:

The majority of respondent's consider the maintenance of their green spaces as adequate

“Feeling safe and secure” was ranked as most important when visiting local green space with

“A diverse and healthy natural environment” ranked in second.

84.6% of respondent's wanted to see local greenspace improved for nature.

Project targets & future opportunities

Short term 22/23:

- Grass cutting disposal solutions
- In-house training
- Active travel routes.
- Share of specialist machinery
- In the field management recording
- QR code site information
- A public recording campaign for wildlife
- Grass cutting policy



Medium term /5 years:

- **Manage 25% (49.6Ha)**

Long term /Over 5 years:

- **To manage all appropriate maintained estate for wildflower diversity.**



Pesticides in Flintshire

What are they?

- ▶ Pesticides are chemical or biological products used to kill or control living organisms
- ▶ Types of Pesticide: Herbicides, Insecticides and Fungicides, Rodenticides, Molluscicides and Nematicides
- ▶ Glyphosate is the most widely used herbicide in the world
- ▶ In 2015, the WHO's International Agency for Research on Cancer (IARC) labelled glyphosate as “probably carcinogenic”

Why we need to stop using chemical herbicides

Effects on Human Health

- ▶ Low concentrations: damage to liver, kidney and skin cells.
- ▶ Repeated exposure: Parkinson's disease; asthma and other respiratory diseases; infertility, pregnancy problems, and birth defects; and cancer, including leukaemia and non-Hodgkin's lymphoma.
- ▶ High concentrations: can cause harmful or lethal effects after a single episode of ingestion, inhalation or skin contact.
- ▶ Children are more at risk
- ▶ Exposure: Towns and cities, farmland and rural communities, homes and gardens, and via our food

Why we need to stop using chemical herbicides

Effects on the Environment

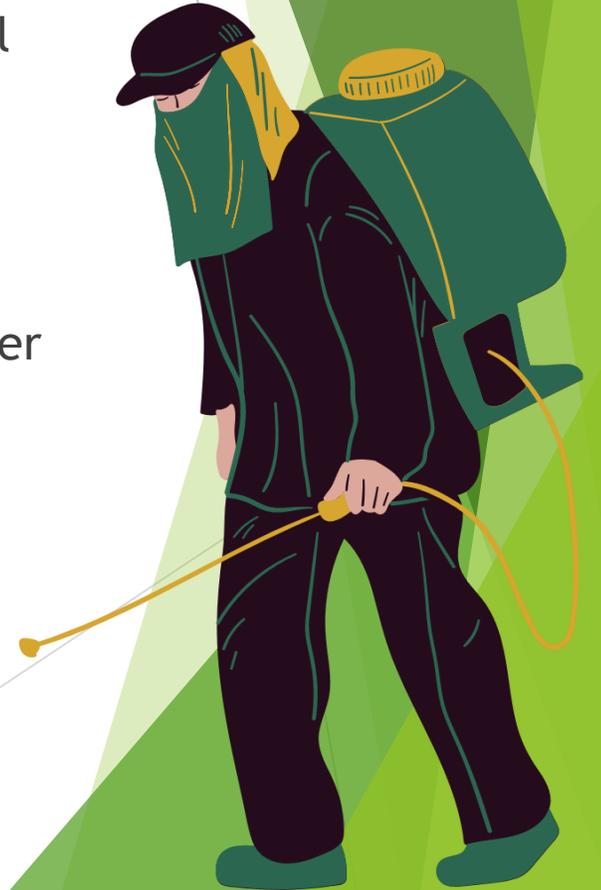
- ▶ Reduction of wildflowers = insect declines
- ▶ Pollution of the air, water and soils
- ▶ Bad for bees

- ▶ The evidence supporting the long-term negative impacts of Glyphosate for people and the environment, warrant a move away from its use in a timely manner.



Herbicide Use in Flintshire

- ▶ 1150 litres
- ▶ Where: block paving in town centres, greenspaces, along curb edges, school grounds and invasive species
- ▶ Curb spraying contract = £50,000/year
 - = spot-spray 11,000km of curb
 - = One spray in June with optional revisit in September
- ▶ Issues: complaints, mileage, cost



Options for Reductions

- 1) Targeted Reduction
- 2) Use of Alternatives
- 3) Opt-out Schemes

1) Targeted Reduction

- ▶ Stop use of chemical herbicides within town centres, school grounds, and greenspaces
- ▶ Numerous councils including Lewe's district council no longer use chemical weed killers in any of their parks, open spaces or children's play areas
- ▶ Change contract for school grounds maintenance to exclude the use of chemical herbicides (46 schools)
- ▶ Explore policy changes for tenant farms and council owned allotments to restrict the use of pesticides





2) Use of Alternatives

Alternatives:

- ▶ Heat-based methods: Battery powered weed burners, Flame guns and Foamstream
- ▶ Organic sprays: vinegar, lemon juice, citronella etc.
- ▶ Manual removal methods: Hoeing or weeding, Road sweepers
- ▶ Invest in alternatives and trial their effectiveness for different areas
- ▶ Re-direct the curb spraying contract costs to cover an in house member of staff to use/trial alternatives





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- ▶ Invest in alternatives and trial their effectiveness for different areas
- ▶ Re-direct the curb spraying contract costs to cover an in house member of staff to use/trial alternatives

3) Opt-Out Schemes

- ▶ Residents can opt-out of pesticide use on their street by committing to maintaining part, or all, of their road or street, through weeding
- ▶ People can do this either individually, or as part of a residential group
- ▶ Lambeth Councils Community Weeding Scheme had 130 streets involved
- ▶ Option to leave some beneficial weeds



Leading the way

- ▶ In 2019 France banned the use and sale of all non-agricultural pesticides
- ▶ Germany and Austria have announced intentions to end the use of glyphosate over the next few years.
- ▶ Over 80 councils across the UK have either entirely stopped or significantly reduced use of using these chemicals



Wales Aims

- ▶ This video is of Julie James, Welsh Governments Minister for Climate Change talking to the wildlife trust about the need for reduction of pesticides by local authorities
- ▶ https://www.linkedin.com/posts/craig-bennett3_climate-cop15-montreal-activity-7009602443835527169-Ykk1?utm_source=share&utm_medium=member_android
- ▶ Skip to 1:27

References

- ▶ Pesticide Action Network UK 2017, Pesticide Action Network UK official website, viewed 23 January 2023, < <https://www.pan-uk.org/health-effects-of-pesticides/>>.
- ▶ Pesticide Action Network UK 2017, Pesticide Action Network UK official website, viewed 23 January 2023, < <https://www.pan-uk.org/effects-pesticides-women-children/>>.
- ▶ Pesticide Action Network UK 2017, Pesticide Action Network UK official website, viewed 23 January 2023, < <https://www.pan-uk.org/our-environment/>>.
- ▶ Goulson, D., 2021. Silent Earth: Averting the Insect Apocalypse. Random House. Pp.120-134.
- ▶ Ball, L., Still, R., Riggs, A., Skilbeck, A., Shardlow, M., Whitehouse, A. and Tinsley-Marshall, P., 2022. The Bugs Matter Citizen Science Survey: Counting insect'splats' on vehicle number plates.
- ▶ Van Bruggen, A.H., He, M.M., Shin, K., Mai, V., Jeong, K.C., Finckh, M.R. and Morris Jr, J.G., 2018. Environmental and health effects of the herbicide glyphosate. Science of the total environment, 616, pp.255-268.
- ▶ Cressey, D., 2015. Widely used herbicide linked to cancer. Nature, 24, pp.1-3.

Thank you for listening

Flintshire County Council.

Grass Cutting Policy (January 2018)

Biodiversity opportunity in red (Jan 2023)

1. Roadside verges

a) Rural Verges (outside 40mph) - 1 cut per year in July (subject to weather conditions)

- 1 swathe widths on all principal roads
- 1 swathe width on all non-principal and unclassified roads

Visibility splays at junctions 4 cuts per year in –

- April
- June
- August
- September/October

Full width verge cutting for weed and self-sown sapling control on all classifications of rural roads once every 4 years in September/October

Additional cuts may be carried out on Health and Safety grounds in specific locations as identified by the Area Coordinators.

Rural Verges:

- Safety priority
- Limited opportunity
- Opportunity to collect cuttings when we cut on flat verges – looking into bank mowers

Visibility splays:

- Opportunity to collect cuttings – longer term impact less cuts needed, improvements in biodiversity

b) Urban verges (within 40 mph zones) – 4 cuts per year

- April
- June
- August
- September/October

- Option A – Reduced mow on all suitable verges (avoiding banks and visibility cuts)
Letting the grass/wildflowers grow, with a cut and collect once a year between August and October
(Targeted initial communities a possibility but adds complexities)
- Option B – retain cuts - collect all cuttings – on flat verges
(longer term impact reduce vigour of grasses- less cuts needed, improvements in biodiversity (Dorset approach))

c) Cyclic

Cyclic routes on county dual carriageways

Cyclic routes receive 2 cuts a year (1m swathe cut in April-July and a full cut in September)

- Option: Retain first cut as existing.
Collect all cuttings on the second full cut where possible.
Trial cyclic cut and collect 2023 on the most appropriate cyclic route (Gronant or DIP suggested).

2. Amenity Areas

Maximum of 13 cuts per year as required.

Flexible start required for the start of the cutting season, in February/March, subject to weather conditions.

Frequency of cuts based on every 2 weeks in April to June, extended to every 3 weeks July to Oct, subject to weather conditions.

(Removal of grass cuttings will only take place in exceptional circumstances i.e. First-Cut of the season)

Option A:

- Increase area under reduced mow or wildflower management gradually through existing process.

Option B:

- Opportunity to introduce collection of cuttings on flat areas – longer term impact less cuts needed, improvements in biodiversity

3. Public footpaths / Cycle Routes

A maximum of 4 cuts per year as required, to prevent rural footways being lost to grass ingress and verge creep due to lack of usage.

4. Hedges

The majority of highway hedges are the responsibility of the adjacent land owner. Where the hedge has grown to an extent that it is causing an obstruction to the highway user, notice will be served on the land owner to cut the hedge accordingly. Highway hedges owned by the Council will be cut once a year after the nesting season has passed.

Highway hedges managed by the Council will be cut a maximum of once a year, outside of the nesting season.

Option: Management timed between Jan - Feb maintains the availability of berries and nuts as a food source for birds and other wildlife.

Allow 2 – 4 years between cuts where possible

5. Bus-stops

A maximum of 4 cuts per year as required across the grassed areas either side of rural Bus-stops, up to 20 metres across the length of the stop.

- Retain cuts but introduce collection of cuttings– longer term impact less cuts needed, improvements in biodiversity

6. Village / Town Gateways

A maximum of 4 cuts per year as required across the grassed areas either side of Village / Town

Gateways signs, up to 10 metres either side of the gateway.

- Retain cuts but introduce collection of cuttings – longer term impact less cuts needed, improvements in biodiversity

7. Recreation Sports Grounds

Up to 16 cuts per year March to October. Subject to separate procurement arrangements and direct liaison with the Schools.

8. Cemeteries

Flexible start required for the start of the cutting season, in February/March, subject to weather conditions. Frequency of cuts based on every 2 weeks in April to June, extended to every 3 weeks July to Oct, subject to weather conditions.

(Removal of grass cuttings will only take place in exceptional circumstances. i.e. First-Cut of the season)

Additional key dates outside of the cutting season to include Christmas and Mothering Sunday.

No change proposed continued implementation of wildflower areas in cemeteries

9. Tenants Gardens

Where tenants have requested and qualify for the assisted gardening service. The service is provided by contractors who will provide the following:

Maximum of 13 cuts per year as required.

Flexible start required for the start of the cutting season, in February/March, subject to weather conditions.

Frequency of cuts based on every 2 weeks in April to June, extended to every 3 weeks July to Oct, subject to weather conditions.

- Option A: Collection of cuttings when cutting tenants lawns if not already done
- Option B: Allow tenants to opt into a 'wildlife friendly' service for reduced mow to allow grass to grow (cut and collect once a year Aug - Oct).
- Additional offer for wildflower enhancement could be coordinated by biodiversity officer. Resident engagement could also be supported by the biodiversity team.

10. Reduced mow/Wildflower Areas

Allow to grow then 1 cut and collect per year between August – November

11. Natural regeneration Areas

Areas to be identified for natural regeneration for carbon capture and biodiversity only requiring essential management for safety.

Next Steps

- Collate and share feedback
- FAQs / summary of responses
- Review of grass cutting policy and performance 2022
- Scrutiny – 7th March 2023
- Cabinet – 14th March 2023
- Adopt new policy – April 2023