Management of Green Flag Parks
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**Introduction**

This document details the management of Green Flag parks in Cheltenham. Over the lifetime of previous plans, significant resources have been applied in an overhaul of Green Flag parks and the Council is now focused on a period of incremental improvements and development, in line with emerging needs.

Cheltenham Borough Council has chosen to focus on the Green Flag Award as a means of raising, and then maintaining, the standards of green spaces in the borough. Thus, the structure of this document follows Green Flag criteria.

By grouping together the generic or shared aspects of parks management, the aims are four-fold:

- To promote the application of Green Flag standards across the borough thereby raising standards overall
- To reduce the size of the individual park action plans for existing Green Flag parks so they are more user-friendly for ‘Friends’ and council staff
- To streamline the Green Flag Award application process, thereby maximising resources available for consultation, planning, procurement and implementation of parks improvements
- To enable, as a result, an increase in the number of green spaces that Cheltenham Borough Council can put forward for Green Flag Awards

The document is intended to be flexible and dynamic so that as changes occur in policies, resources, maintenance regimes, methodologies, work schedules, standards and so on, the plan can be adapted and developed.
Policy Context for Green Space Management in Cheltenham

In 2009, Cheltenham Borough Council published a 15-year strategy for parks, people and wildlife. The vision of the Green Space Strategy is:

“ To work together to ensure a comprehensive network of attractive, valued and well used locally distinct green spaces, that are accessible, safe and welcoming, which meet the existing and future needs of the community, enhance biodiversity and are managed sustainably to reduce our impact on climate change “

The strategy brings together strategic land management, sustainability, bio-diversity and climate change and details core objectives for the protection and enhancement of green space. It incorporates research carried out over 2 years and includes all publicly accessible green space, regardless of owner.

In addition, the full list of policies incorporated in the writing of the Green Space Strategy, and subsequently the Management of Parks and Green Spaces, can be found in appendix 1.

The shared aspects of Green Flag park management are described below:
A Welcoming Place

Announcing the Park

Parks are assessed for initial visual impact to ensure that first impressions are positive and that the park is inviting to users / visitors. The approach to a park is also assessed to make sure that entrances are clearly signposted, in good repair and free from vandalism or graffiti, as this can have a negative impact on the perception of the park itself.

High quality signs at park entrances provide orientation and detail on the facilities within the park. Phone and e-mail / internet information for the Council is displayed. Where there is more than one sign in a park, they are co-ordinated to add to the unique character of the park. Vandal-proof materials are typically used and park rules are displayed.

Physical and Social Access

All Green Flag parks are served by local bus routes or are within reasonable walking distance from a bus stop. Montpellier Gardens has a shared cycle way that serves the centre of town and the Suffolks. Springfields Park is a popular cut through route from the residential areas to the shops in Hesters Way and Springbank, the three local Schools and the Springbank Resource Centre.

All Green Flag Parks have good quality pathways that are suitably accessible for wheelchair users. The toilet facilities in the same parks are DDA compliant.

Social inclusion in use of parks is a priority at the design stage and in the ongoing maintenance. Consultation is key in identifying barriers to use. Methods of addressing different age groups are used such as events in parks (play rangers), consultation at local resource centres (Springbank) to identify areas of improvement that would increase park use; In cases such as Springfields park, consultation has been successful in reclaiming the use of the park for the community as a whole by developing an inclusive design informed by that consultation.
Aspects of Design
Each Green Flag park in the Borough has distinct characteristics.

Montpellier Gardens is a heritage park in a town centre conservation area. The design for the renovation kept close to the historical brief whilst catering for modern day demands.

Hatherley and Naunton Parks have similar design characteristics in that they provide quieter adult areas, separate from the sports and play areas. Both parks serve their community and are well used.

The design of Springfields Park was unusual in that it was almost a blank canvas. The brief in the development of the park was as much to alleviate problems of anti-social behaviour as well as create character, usable space and enhance biodiversity.

Healthy, Safe and Secure

Health and well-being
Cheltenham Borough Council recognises the important role that parks and green spaces play in the health and well-being of residents. The Council funds a department focused on the development of healthy communities and lifestyles, healthy eating, sports development and more.

Our aim is to improve co-ordination of available and scarce resources, to ensure that residents and visitors within parks, gardens, green and public spaces are more confident and can enjoy the many benefits that an attractive and safe environment brings to their health and well-being.

Strong and Healthy geographical communities of interest and cultural experience:
Within our parks and open spaces we provide a wide range of outdoor recreational leisure and sporting pursuits and facilities that promote equality if opportunity, social inclusion, cultural experiences and healthy lifestyles, including community allotments, sports pitches, tennis courts, pitch and putt course, recreational facilities for young families and older children, bandstands healthy walking, cycle routes and cycling.

We are responsible for the development and management of childrens play areas and outdoor facilities for young people ensuring they are well maintained, safe and secure for people to use.

We offer advice and support for community projects aimed at improving the local environment.

We promote and facilitate a programme of special events aimed at encouraging the maximum use of parks and open spaces for the whole community.
There is a year-round programme of events in the parks and green spaces of Cheltenham as follows:

- **Sports in the Parks** funded by Sport England and consisting of a year-round programme of informal sports activities for teenagers in parks and multi-use games areas (MUGAs)

- **Health Walks** organised by Cheltenham Borough Council and led by volunteers. This is a year-round programme with one or two walks every week-day, taking in parks and green spaces in the borough

- **Family Play Events** throughout the year in various parks and green spaces with focus on physical activity and healthy lifestyles

- **Play Rangers** employed by Cheltenham Borough Council to deliver Easter and summer programmes in 9 different parks, encouraging children to partake in play and other activities in the open air. A total of 4,700 recorded attendances at events in 2011

- **Play Gloucestershire** funded by the Council and a Big Lottery Grant to deliver year-round recreation sessions in priority areas (Springfields Park, Providence Park, Agg Gardner and Clyde Crescent)

The healthy communities team has a borough-wide remit but with special emphasis on Hesters Way, St Pauls, Springbank and Whaddon, in order to address inequalities in health.

Additional health-orientated activities in the parks are organised by the Women’s Running Network, Military Fitness and Buggy Fit. This year a new venture in partnership with the Park Run organisation will see weekly running events in local parks in Cheltenham.

In addition to these initiatives, the parks department focuses on improving walking and cycle routes (major works have been carried out in Springfields Park)

**Equipment and Facilities**

The greenspace development team are responsible for ensuring that parks and greenspaces are well maintained, accessible and safe and secure for people to use.

In order to promote safe use of parks and green spaces, all infrastructure, facilities and equipment are inspected on a regular and scheduled basis.

The Council employs a full-time infrastructure inspector who assesses the condition of paths, fencing, gates, seating,
information boards, hard surfacing etc on a schedule that reflects the level of usage of the green space and the required frequency identified.

This means that popular Green Flags are inspected on a more frequent basis than little-used or undeveloped green open spaces. The infrastructure of Hatherley, Springfields and Montpellier parks is inspected on a quarterly basis and Naunton Park is on a six-monthly schedule. Examples of inspection sheets are available along with each site document.

Play area equipment and surfacing all conform to the relevant British / EN standards and are visually inspected on a weekly basis by a part-time play area inspector. Repairs are identified on a risk basis as high (repair immediately), medium (schedule for repair) or low (monitor).

All works are prioritised and supervised by the technical officers and are carried out by them or by known and reputable contractors. All inspections are recorded, photographs are taken and retained, as are all details of major and minor works undertaken.

The playground technical officer undertakes a more detailed inspection of all play areas on a monthly basis and each play area is also inspected on an annual basis by an independent specialist company, which subsequently sends a detailed report to the Council.

In terms of on-site security, toddler areas are fenced, with areas for older children assessed on an individual basis.

Play areas display pictorial signs for no dogs, no wheeled vehicles, no smoking, no glass and say no to strangers.

In terms of additional reporting and response, the public are able to notify the Council of health and safety and other concerns via several mechanisms:

- The ‘REPORT IT’ facility on the council website
- Telephone calls and e-mails directly to parks development team
- Calls and e-mails received via police community support officers
- Calls and e-mails received via Friends and other park user groups

Specific facilities for health, well-being and safety are provided in some parks, according to requirement.

- In Hatherley, Naunton and Springfields parks, pavilions provide toilets and drinking water for sports and other group users.
- In Montpellier, public toilets include a disabled access toilet and a mother and baby facility.
- A dog water tap is provided in Hatherley Park.
- A buoyancy device located adjacent to the lake at Hatherley Park. These facilities are all included in the inspection regime.

Site noticeboards display police contact details and, where appropriate, specific emergency contact information. At Daisybank, where bike ramps are situated, details of how to contact the emergency services and direct them to the location are clearly displayed, in case of accident.
As suggested by Green Flag guidance, the provision of shade has been considered as part of the park improvement process. The four Green Flag parks have been assessed. Montpellier and Hatherley are established parks with an abundance of mature trees providing ample shade. Additional trees have been planted in suitable locations in Naunton and Springfields parks.

Security and safety in parks and green spaces

As well as a rigorous inspection and maintenance programme, there are other aspects of site security that are addressed by Cheltenham Borough Council.

All council staff working in parks and green spaces (gardeners, cleansing crews, rangers, dog wardens, enforcement teams) are clearly identifiable by their council uniform and this helps establish the sense of a ‘presence’ in the park and helps members of the public to identify people who can assist them.

Child protection

In terms of child protection, there is a council-wide policy and training programme and all staff are invited to attend a basic training session outlining child protection issues and staff responsibilities.

All personnel likely to come into contact with children or vulnerable adults are CRB checked.

All park and play ranger staff working regularly with children in the parks attend a two-day child protection training course and are well-versed in the identification of issues, appropriate reporting structures and procedures.

On-site security

There are several initiatives which have been set up to improve safety and security within parks and green spaces. Council staff work closely with named members of the local constabulary (Police Community Support Officers – PCSOs) and other agencies. The approach is tailored, according to the area.

Springfields Park typically experiences problems in the areas of graffiti, vandalism, fly-tipping and damage caused by motorbikes. The police, council parks staff, local housing associations, Resource Centre and others meet on a quarterly basis to identify and solve issues jointly.

Montpellier Gardens, in the city centre, is more likely to experience problems in the areas of anti-social behaviour, particularly in relation to drug and alcohol use. The Cheltenham Town Centre Neighbourhood Coordination Meeting is held quarterly and
residents, the West End Partnership, police and council work together to identify and resolve problems.

**Hatherley Park** experiences sporadic episodes of vandalism, typically coinciding with school holidays. Liaison between the local PSCOs and parks personnel results in an increase in patrols during these times.

**Naunton Park** is less prone to problems but again, liaison with the local PSCOs has proved effective in dealing with occasional issues relating to vandalism and graffiti. Prompt identification and removal of tagging and graffiti has proved to be effective, as have additional PCSO patrols at identified times.

The site notice-boards display information about how to contact the local constabulary and how to contact the council by telephone, e-mail or via the web-site to report damage and incidents.

The council also refers to the Police Architectural Liaison Officer who comments on planning applications for the council and also gives advice on specific aspects of security and safety in parks and green spaces. This can range from advice about lighting, fencing, areas of vegetation that may be giving cover to illegal or anti-social activities and more.

**Council Enforcement Team**

A recent development is the reorganisation of the council enforcement team. Previously, single officers specialising in a single area of enforcement operated across the town (e.g. one dog warden covering the whole borough).

The reorganisation has seen the town divided into areas and officers given responsibility for enforcement relating to dogs, litter, fly-tipping and more. This has led to better knowledge of regular / repeat offenders, targeting of surveillance and enforcement and an increase in fixed penalty notices.

**Park Watch and Friends Groups**

The council has worked with local residents and park users to create Friends and Park Watch groups. In Benhall Open Space, morning dog walkers have been recruited to be early-morning ‘eyes and ears’ and to report any issues directly to the parks department so they can be dealt with very promptly.

The level and type of contact with these groups varies considerably and there is a tailored approach depending on the needs of the park and the group.

For example, there is almost daily contact with the Friends group in **Hatherley** Park, who like to get involved at a very detailed level in the park. In **Springfields** Park, meetings are quarterly, with some communication in between, when an issue or problem has been identified. For **Montpellier** and **Naunton** Parks, the Friends groups operate fairly independently, organising events and litter picks, raising funds and liaising on park development.
Health and safety policies

Cheltenham Borough Council takes a proactive and comprehensive risk assessment approach to the management of health and safety in parks:

- Every employee reads and signs a personal copy of the Council’s health, safety and welfare policy and has a health and safety section in their employee file. Training needs are identified via the induction and appraisal systems and copies of certificates are kept in the file.

- Two full-time corporate health and safety advisors manage the updating of policies and procedures and ensure that recommendations are implemented and a pro-active approach is maintained.

- Staff are offered regular health checks covering lung function, hearing and blood tests and can take advantage of free ‘MOT’ tests offered through the corporate occupational health service.

- There are known procedures for all activities regularly carried out by council staff in the parks and green spaces and for reporting incidents. Health and safety is a permanent agenda item for team meetings.

- There is a risk register for each site, indicating all known hazards that staff and contractors working on site would need to be aware of.

- There is a lone worker policy and a mobile-phone based log-in / log-out system provided by an external third-party provider which activates a response if a lone-worker fails to log in or out at the prescribed times.

- All contractors are vetted and required to have employee liability insurance and public liability insurance for a minimum of £5million. They are required to submit methodology statements and safe systems of work for the work they are carrying out and the council issues risk assessments which are signed by the contractors and remain on file.

- The greenspace development team have undertaken an extensive audit of water safety within the Boroughs open spaces. Guidance was sought from the council health and safety officers and our insurers. The resultant findings will be used to inform future policies and implement changes accordingly.

Control of Dogs

Since April 2007, four dog control orders have been adopted by Cheltenham Borough Council, with fixed penalty notices for offenders.
Three of the four dog control orders are applicable to all Green Flag parks in Cheltenham: removal of dog faeces, keeping dogs on leads when directed and exclusion of dogs from all enclosed children’s play areas. The fourth relates to a requirement to keep dogs on leads in specific areas and this includes the Rose Garden in Naunton Park. The re-structuring of the enforcement team to cover specific areas of the borough has led to an increase in fixed penalty notices and a targeting of repeat offenders where members of the public are able to give descriptions and visiting times.

Measures to address dog-fouling include a Report-it facility on the council website, handing out of dog bags (over 2 million per annum but under review due to budget reduction measures) and dog bins in parks.

In addition, the enforcement officers carry out a specific exercise in areas where fouling has become a problem. Dog mess is highlighted with a circle of red paint, demonstrating to dog-owners the extent of the problem and also that the area is under surveillance. This has been found to be effective in reducing the incidence of fouling where this activity has been carried out.

Green Flag park-user surveys indicated that Hatherley Park has the smallest problem with dog fouling, followed by Naunton Park and then Montpellier, with Springfields Park visitors indicating a higher level of dissatisfaction.

One recent problem that has arisen is the use of children’s play equipment, most specifically swing seats, for bite training of aggressive dogs. A successful measure has been to install seats made with a citronella-impregnated material. This seems to deter the dogs in the medium term.

To promote responsible dog ownership within the borough, the council runs an annual ‘Paws in the Park’ event in conjunction with a local animal shelter.

Approximately 2,000 people attend the PAWS event each year.

Dog classes were judged by a celebrity judge and attendees were able to obtain the Kennel Club’s Good Citizenship Dog Test (bronze award).

The event and its aims received local and regional coverage in the print and broadcast media.

**Well Maintained and Clean**

**Litter and waste management**

All four Green Flag parks in Cheltenham are classed as category 2 sites in terms of the Environmental Protection Act, this equates to litter clearance and the emptying of bins 3 times a week. Weekend, event cleansing and response maintenance supplement this.
Fly-tipping, graffiti and broken glass are dealt with on a response basis and are dealt with immediately, as this has been found to be the most effective way of preventing an escalation or recurrence of the problem.

In all four Green Flag parks, Friends groups are actively involved in assisting with litter picking.

Parks staff, particularly community rangers, make a point of picking up litter and handing out dog bags when they are in a park and this helps to set an example. Litter bins are located throughout the parks and a uniform ‘look’ is created by adoption of the Big Ben model.

All relevant parks, park cleansing and grounds maintenance staff have up to date training on the safe handling of discarded hypodermic needles.

In September 2011, the council initiated an experiment with chewing gum boards for the disposal of gum. Two boards have been placed in the centre of the shopping area of the town but the concept will be rolled out across other spaces, possibly to include parks and gardens, if it proves effective.

In terms of rubbish separation and recycling provision in Green Flag parks, there is provision for both in the Resource Centre at Springfields Park and the Café in Montpelier Park. There is no current provision at Hatherley or Naunton Parks however a study of the feasibility and cost of installing new litter bins is underway.

In terms of the recycling of horticultural waste, all green waste is collected at the Civic Amenity site and forwarded for use as green waste compost. Bedding displays once removed are composted on one of the Councils allotment sites.

Used organic play bark, fallen leaves and chippings are taken to allotment sites for use as mulch or composted for organic matter to improve soil.

Where possible materials generated from work within the parks, such as tree works, are left on site for use in the vicinity.

**Grounds maintenance**

There are five mobile grounds maintenance teams operated by Ubico who employ permanent and seasonal staff.

The green space development and Ubico grounds maintenance teams are located at the same depot. Regular meetings and discussions ensure the practicalities of landscape maintenance are taken into consideration in parks development work.

The specific works programmes for the Green Flag parks are located in the site documents.

Maintenance of the lakes and water courses is undertaken with the input and advice of a specialist company. The only Green Flag park with a lake is Hatherley Park and it is maintained according to the recommendations of Aquascience. The on-going habitat development and maintenance is undertaken by a dedicated bio-diversity ranger. See the Hatherley management plan for the detailed water management schedule.
Buildings management and maintenance

All parks buildings are managed by the Council’s Properties Department and are included in a recently established 20-yr rolling maintenance programme.

Details of site specific buildings, their use, condition and maintenance / repair requirements are given in the individual Green Flag park action plans.

Sports pavilions are looked after by a pavilion attendant who unlocks the facilities for matches and who also cleans them following bookings.

Infrastructure and other facilities

Green Flag parks (Montpelier, Hatherley and Springfields Parks) are inspected on a weekly, monthly and annual basis for the play areas and a quarterly basis for infrastructure and facilities. Naunton Park is on the same schedule for play areas and a six-monthly one for infrastructure.

Reports of problems via the Report-it facility, Friends and user groups, staff and other agencies (e.g. PCSOs) ensure that issues are quickly identified.

As previously mentioned, there is a policy to undertake minor repairs immediately to maximise availability of facilities. This applies to removal of graffiti. ‘Tags’ are recorded by the Ranger Team and reported to the Police. Rangers organise periodic street art programmes to encourage a more appropriate outlet. In 2012, a large-scale street art project on the Honeybourne Line was very well received. The project was extended to provide free walls along the Honeyborne line and in Springfields park. The use of the walls is monitored and if any offensive graffiti or tagging is spotted it is removed or covered over.

Hard surfaces, paths, play surfaces and so on are included in the inspection and maintenance regimes.

Any fault / hazard is clearly identified or cordoned off so that members of the public are kept clear of the area until the repair can be carried out.

Equipment maintenance

The inspection regime to ensure the cleanliness, maintenance and safety of equipment used by the public has already been described. Please refer to the section on Equipment and Facilities in the Healthy, Safe and Secure section.

Cleanliness

A clean park is often perceived as a safe park. All efforts are made to maintain parks to excellent standards as mentioned before but specifically:

- Instances of graffiti and flyposting and flytipping are removed as soon as possible. The use of fixed penalty notices is used to deter future occurrences
- Boards to encourage responsible disposal of chewing gum have been introduced.
- Enforcement of dog fouling by fixed penalty notices and patrolling.
- Prompt repairs to any vandalised equipment.
Sustainability and Conservation

Environmental management

The Council’s Environmental Maintenance Strategy (EMS) and Climate Change Strategy (CCS), available on the Cheltenham Borough Council website, have been instrumental in progressing projects designed to improve environmental performance and meet broader sustainability objectives.

Key areas from the EMS and Climate CCS that impact the management of Green Flag parks include;

- Minimisation of resource use (further information in this section)
- A programme of ranger-led activities increasing awareness of environmental issues, especially among younger people.
- Cheltenham is hoped to be designated as a Bee Guardian town in early 2013 and specific measures such as improved planting will be implemented in all of our Green Flag parks.
- Use of interpretation boards and notices in Hatherley, Springfields and Naunton parks, helping to educate park users about their local environment and how it can be preserved
- Developing and highlighting the environmentally-friendly aspects of the pavilions to help promote environmental awareness
- Specific measures such as the wind turbine in Springfields Park

Pesticides and Herbicide use

Several years ago, an external company was commissioned to review the council’s pesticide policy and practice. Since then, the recommendations have been adopted and the council actively pursues a policy to minimise their use.

As an alternative to using chemicals, rose and shrub beds are mulched using a 75mm layer of composted wood chippings which is topped up on a yearly basis, and a weed membrane to control the growth of weeds. No insecticides are employed.

If deemed necessary, hard-surfaced areas in Green Flag parks may be spot-treated in April and July for weeds using glyphosphate. This is only applied if there is deemed to be no other available option and is undertaken either by trained staff or a suitable contractor.

Further information on council policy and safe systems of work in relation to chemical use can be found in appendix 3

Materials

The Council has adopted a policy on Use of Peat in order to minimise the use of this finite resource and the resulting potential impact on climate change.

This requires that wherever and whenever possible, low or no peat materials are used. When purchasing plants, i.e. shrubs and herbaceous, from external suppliers almost all of the potting media is now coir based peat substitute. The nursery, which is now run by the local authority company Ubico, produces a high volume of bedding plants for use within Cheltenham and supplies several other local authorities. The nursery manager currently uses 60% reduced peat compost for bedding plant production but is actively seeking a viable peat free alternative.
The council composts a proportion of its green waste at the council nursery this is made available (and is very popular with) to the plot-holders at the adjacent allotment site who use it to improve the clay soil and to fill their raised beds etc.

**Resource conservation, waste management and recycling**

The following measures have been adopted in all parks and green spaces managed by Cheltenham Borough Council:

- No boxed grass mowing
- Wood chippings used on site whenever the opportunity arises or taken to allotment sites for composting and as pathway surfacing.
- Waste organic play bark used on allotments for compost / mulch
- Green waste composted at central site for re-use in parks and gardens
- Any soil excavated is re-used on site or as near as possible to the site
- Wild flower arisings bailed and used for animal bedding (dependant upon contamination) or composted.
- Natural elements used in play area i.e. boulders have an indefinite life span (limiting ‘scrapage’ as associated with “off the shelf” equipment.)
- Use of press releases and council web-site to inform the public of measures being undertaken to manage resources and waste.

**Horticultural and arboricultural management**

Trees are sourced locally and from within the UK, depending on requirements. Some parks, such as Pittville Park, have an element of ‘arboretum’ and therefore exotics are sometimes appropriate. The majority of trees planted are native and all come from licensed and approved sources.

Where hedgerows are planted or gapped up, native species such as hawthorn and blackthorn are used to provide a food source for wildlife. Some fruit trees have been planted in parks, most recently in Springfields Parks as part of a community led project.

The new planting success rate was ranges from 70% to 74%. Trees deemed unsuccessful will either be unhealthy (e.g. with small leaves and not thriving) or dead. While a small amount of the failure is attributable to vandalism, insufficient watering has been identified as a problem that needs to be addressed.

All new trees are furnished with cages / strimmer guards.

**Standing Dead Wood**

There are much recognised benefits of leaving deadwood in situ. It provides a habitat for various decay fungi and wood boring insects, which in turn attract other wildlife further up the food chain. Different decay strategists will colonise standing dead wood and prone trunks. Standing dead wood can also be a suitable site for nesting birds, perches and so on.

Standing dead wood is a rare commodity and the council has adopted a policy of assessing on a case by case basis the suitability for tree trunks to be left in situ, either standing or prone.
In Hatherley Park, several trunks have been left standing in recent years, and subsequent inspections showed a colony of stag beetles in a dead apple tree stump. In Naunton Park Rose Garden, a stump has been formed into a wood sculpture.

In Montpellier Garden and Springfields Park, there has not yet been an opportunity to apply the policy as no trees have required felling.

Opportunities for retention of deadwood will continue to be assessed on a case by case basis. Inspection of standing trunks is undertaken by the Trees Officers on a scheduled and regular basis and actions taken accordingly (standing trunks are subsequently felled and left prone, if deemed the appropriate course of action, following a health and safety inspection).

Pollution reduction

The following precautions for minimising pollution have been adopted:

- fuel stores are bunded to contain any spillage.
- all chemicals are stored in weatherproof, secure facility away from surface water drain.
- waste clearly marked and properly disposed of.
- bonfires avoided (except Japanese Knotweed, etc)
- noise kept to minimum on vehicles and machinery and mufflers used
- records kept of pollution incidents and complaints, policy – aim for zero incidents etc – reporting of spillages to environment agency’s hotline

Water and energy efficiency

Measures to improve water and energy efficiency are general and site specific:

- Mains water consumed in all parks pavilions and buildings is metered and the team leader of the customer services group monitors the bills for unaccountable increases and possible leaks are then investigated
- Percussion operated taps and showers have been fitted in all pavilions to save water and in Springfields and Hatherley Parks, the toilets are ‘low-flush’. Urinals have been fitted with water controls
- The current roll-out of pavilion refurbishments has seen the installation of condensing gas boilers with secondary coil fitted as standard (to allow for possible future use of solar heating) in several park pavilions. One (Beeches) has had the solar panels fitted
- The roll-out of improvements also includes intelligent (PIR controlled) lighting, fluorescent / low energy lights, fan controls and low flush toilets. Springfields and Hatherley Park pavilions have had their refurbishment and now have these facilities installed.
- Montpellier Gardens does not have a pavilion but the public toilet block is fitted with intelligent lighting (PIR controlled) and low energy fluorescent bulbs
- All pavilions are managed by the Properties Department on a Planned Preventative Maintenance basis and according to SMG 2000 regulations, so that boilers and equipment are pro-actively serviced and efficiency certificates issued.
Further action is then taken on any facilities / boilers found to be running at less than optimum efficiency.

- Electricity is sourced from a green tariff supplier

- A wind turbine has been located in Springfields Park to generate part of the energy for the Springbank Community Resource usage and promote environmental awareness

- Water level in swales and ponds (Springfields Park) and the lake and pond (Hatherley Park) are maintained naturally by a mix of ground-water, field drains and rainfall. Levels fluctuate slightly and naturally

- Swales and bunds have been created in Springfields Park to prevent localised flooding to neighbouring properties and prevent flash flooding to localised surface water sewers

- There is a focus on naturalistic planting that requires no irrigation long term. Irrigation is limited to the establishment of recent plantings and the use of mulch aids the reduction in water loss

- All outdoor floral containers include reserves to minimise watering

- The Parks Development Team have started to explore the possibility of utilising water capture to minimise mains water use. It may be possible to harvest water from the roves of parks buildings such as the Kiosk in Montpellier Gardens.

- Mower operations have been reduced by at least one third in Springfields and Hatherley parks as a result of wild flower, and zero maintenance areas such as wide borders left at the edges of parks which aid bio-diversity as well

Air quality

Cheltenham Borough Council carries out an updating and screening assessment (USA) to identify areas where air pollution may be a problem, followed by a detailed assessment in those areas where air quality limits are likely to be exceeded. This is in line with the requirements of the 1995 Environment Act.

If air quality limits are exceeded in an area where people live or work, the Council must declare this an air quality management area (AQMA).

More details are available on the Council’s web pages for air quality, including standards and objectives and copies of reports.

Improving Environmental Quality is an explicit part of the Council’s Green Space Strategy and details of how this has informed management and maintenance of parks is evident within this document. Of particular note is the reduction in the use of fossil fuels through changes in mowing regimes as a result of planting wildflower meadows and leaving wide wildlife-friendly borders uncut, as described above.

There are further plans to decrease the amount of cutting activity in order to reduce the use of fossil fuels. The proposed acquisition of more robust machinery would permit a lower frequency of grass and verge cutting.
Conservation

Water management

The Greenspace Development team pay particular attention to sustainable drainage both in new designs and in improvements in existing parks.

At Springfields Park, swales and bunds have been created that act as filtration basins to prevent localised flooding to neighbouring properties and prevent flash flooding to localised surface water sewers. The ditches fill at times of heavy rainfall and are treated as natural features. At least two of the ditches now host an array of fauna such as tadpoles in spring.

The lake and wildlife pond in Hatherley Park are maintained naturally by a mix of groundwater, field drains and rainfall. Levels fluctuate slightly and naturally.

There is active management of these water features and they are managed as ecosystems with the assistance of Aquascience.

Montpellier Gardens and Naunton Park do not have any water features.

Woodland and Trees

The tree management regime for Green Flag parks is to leave trees to take their natural shape and minimise pruning unless there is a safety issue. This is good arboriculture practice, keeping the trees looking at their best.

Any trees which are going over into over-maturity or are already dead are assessed for the opportunity to leave to decay (as described previously). Opportunities for re-planting can also then be addressed via the action plans.

Overall, tree management is undertaken by an in-house team of tree professionals with the following aims:

- to comply with the overall plan for, and management of, the parks
- to preserve and enhance the existing landscapes
- to identify and undertake work required for health and safety reasons

Examples of tree inspections and species lists are found in the appendices of each site specific document.

In terms of enhancing the landscape, additional opportunities are sought for tree planting over and above replacement. Tree specimens are chosen for the location and given site characteristics.

For example, in Hatherley Park, a group of 7 alders has been planted in the southeast of the park to catch the eye and provide a turning point for those who stroll along the boundary.

In Springfields Park, additional trees have been planted to provide shade, to be a food source for humans and wildlife and for visual amenity value.

Some specimen trees are of a size and scale that they contribute to the landscape/townscape beyond the park boundaries. If a park is inside a conservation area (eg
Montpellier) or just outside one (e.g. Hatherley), the principles of tree protection are extended informally to include the park.

The Council’s Trees Officer periodically organises educational tree walks. The summer events in Hatherley Park regularly attract 30 to 40 people.

**Grasslands**

Three of the Green Flag Parks, Hatherley, Naunton and Springfields, have areas designated at wildflower meadows. These areas of grassland provide a more biodiverse habitat within the park. The management of these areas is described in detail in Appendix 2.

**Conservation of landscape**

Each Green Flag park has its own character, landscape and historical features and there is an emphasis on the conservation of natural, landscape and structural features.

In Montpellier Gardens, a Heritage Lottery Grant saw extensive restoration of the grounds and buildings. This included the refurbishment of the Proscenium to accommodate the Gardens Gallery.

In Hatherley Park, the historical structure is based on having active and quiet areas and the established trees form an important part of the park’s heritage.

Naunton Park has had extensive works to the formal planting areas that complement the historic Cottage Homes.

Springfields Park was not a historically significant park and had little in the way of significant design features to be preserved when it was transformed from 2007 to 2010. However, mature hedgerows and trees were retained to ensure conservation of flora and fauna.

**Conservation of the built environment**

**Montpellier** and **Naunton** Parks have buildings which are counted as historically significant. In the case on Montpellier, when the restoration of the park was under consideration the future use of the buildings, specifically the Kiosk and the Proscenium, was brought into the design to ensure that they would be conserved for future generations to enjoy. Naunton Park has the Cottage Homes which inhabited and the park used as affront garden by many of the residents.

More details of the aforementioned properties can be found in the individual action plan documents.

**Marketing**

Over several years, the greenspace development team in Cheltenham have undertaken a lot of consultation with park users and overseen significant investment to ensure that the Green Flag parks are providing the correct facilities and environment to encourage people into them.

A further step has been to ensure that the improvements made have been advertised widely and that the public are aware of other events and activities designed to make the
best use of the parks for health and well-being, sports development, play development, educational opportunities and more.

Information Provision and Interpretation

The greenspace development team works with the Council's communications team and local media to ensure that the parks and the events taking place within them are well advertised and that people are informed about developments.

Event details are provided to the public and staff via an information booklet, through local media and via web pages, the intranet, flyers and posters to schools, local outlets, notice boards etc.

Friends group newsletters and 'word of mouth' also work well to disseminate relevant information.

The notice-boards at all Green Flag sites are used to advertise the facilities available in the park and highlight the forthcoming events and activities.

All Green Flag parks have interpretation panels giving historic (Montpelier and Naunton) or wildlife (Hatherley) information.

The Council maintains pages on its website about Green Flag (and other) parks and the Friends groups which have websites (i.e. friendsofnauntonpark.org.uk) also include information about the park and the activities that take place there. Press releases go to the local media and the council also makes use of local events listing websites such as soglos.com

Events and Special Events

Many events and activities are organised by Cheltenham Borough Council, as described already. Special Events are predominantly events organised by external organisations wishing to use council open space as an event venue. Parks and open spaces are actively promoted as event venues and there are guidelines that cover all elements, such as insurance, risk assessments, setting up, clearing up times, duration and nuisance to local residents.

A small number of Cheltenham parks receive the majority of applications for special events and Montpellier Gardens are well used for the food and literature festivals. Hatherley Park is not a well used space for special events but the user feedback indicated a strong desire for there to be live music in the park. This was communicated to the Friends group in 2011 and shortly thereafter, the first of their music events took place.

Community and Play Ranger Services

The community ranger service is an important tool in raising park profiles, with their role to encourage community involvement in the parks. They achieve good media coverage, which helps to promote the park. The Rangers are identifiable by their uniform and logo’d vehicle and bicycles.

These activities nearly always include elements of education about ecology and wildlife in the park. Budgets permitting, they will continue to be supported.
**Play Ranger** events will also continue, although it is likely that budget cuts may impact on the number of events run.

The free events often include sports, bouncy castle, face painting, arts and crafts, under 3s area and more. They are generally organised around school holidays and National Playday and use various parks around the town.

**Promotion**

As previously mentioned, informative interpretation panels and notice boards furnish each Green Flag park. Events are promoted using site notice boards, additional leaflets e.g. historic trails, tree walks, history walks, wildlife walks and Ranger and Play Ranger events –Activities are successfully promoted as demonstrated by 4,700 recorded attendances at children’s play events organised by the Play Rangers in 2011.

The Green Flag logo is used for marketing material relating to Green Flag parks, as it is emblematic of the quality and standard of the park.

The extremely high use of, and good attendance at park events suggests that marketing for Green Flag parks is effective and is achieving its aims.

It appears the Green Flag Award is not widely recognised by the public so Green Flag park press releases include background information.

**Using the Green Flag Award in Marketing**

The Green Flag logo is used for marketing material relating to Green Flag parks, as it is emblematic of the quality and standard of the park.

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**Management**

Management of the Green Flag Parks ties in with the Council’s ‘Parks People and Wildlife, A Greenspace Strategy for Cheltenham’ This document was sanctioned in 2009 and runs until 2024. A copy is available on request. The greenspace development team are planning to update the document as part of a 5 year review during the course of 2013/14.

**Public service**

As a measure of how parks within the Borough are used and what parks users would like to see in the future of the parks is subject of the user survey. The details of this survey are available on each of the individual site documents.

**Personnel**

The Management plan is available to staff at all levels. The Greenspace Development Team hold regular meetings with Ubico to agree works programmes and inform on projects. On a day to day basis, the teams currently work within the same site which promotes ease of communication.
Review, Quality and Audit Systems

- **Green Flag Award** provides a method for self-assessment and determines the action plan for each park, which is monitored on an on-going basis and reviewed annually.

- On-going **feedback and consultation** from park users feed into decisions and actions for the park.

- **Complaints, comments and compliments**: Listening to customers views to constantly review and improve services.

- **Greenspace Strategy**: With priority and desirable outcomes linked into the Community and Business Plan e.g. Achievement of Green Flag Award for existing recipients and new applicant parks.

- Working with and listening to **Friends** and **Park Watch** groups.

- **Customer satisfaction surveys** undertaken annually.

- **TAES** (towards an excellent service) review, facilitated by Community First Partnership. This model has been developed specifically for green spaces by IDeA, ISPAL and CABE Space. Undertaken in 2009, outcomes are now feeding into Action Plans e.g. in re-structuring of department.

Financial Management

Capital Expenditure

Large amounts of capital have been raised for the development of Green Flag parks.

For Hatherley Park, over £85,000 was raised by the Council and the Friends group which was spent on capital projects in the park between 2005 and 2010. The Friends of group have now raised more funds for new play equipment to add to the existing playground.

(A detailed breakdown of the funds raised in conjunction with the Friends group is available in the appendices of each park document, as is a year on year breakdown of capital expenditure in the park over the life of the previous park management plan)

With the majority of major works completed in all four Green Flag parks, it is not foreseen that there will be major capital investment in these parks in the near future. There will, however, be on-going consultation with user groups to identify future requirements and funding sources. The emphasis is now on maintaining the facilities installed and the standards reached.

The council allocates capital funding for parks improvement by approving a rolling programme of year-on-year capital investment. A small proportion of this budget will be allocated to each Green Flag park to ensure the high standards attained are maintained in the future.

In addition to this, the Council raises revenue through the planning process and section 106 legal agreements with developers, to obtain contributions towards the improvement of play areas. Green Flag Parks are already the beneficiary of several such contributions.
Financial Aspects of Park Maintenance

The Council does not disaggregate the parks and landscapes budgets on a per park basis. However, costs for Green Flag parks are broadly divided into two main areas: management and maintenance.

This roughly reflects the division within the budget for the Greenspace Development Team (planning and management of capital expenditure, marketing, events, play infrastructure, trees management etc) and a Landscape Group (grounds maintenance and cleansing.)

A budget cut imposed on the department will mean a small reduction in the overall amount allocated for the management and maintenance of Green Flag parks but with the increasing involvement of Friends and other volunteer groups, it is envisaged that there will be little impact on the maintenance and standards in the immediate future.

The council also works with local organisations, which helps to supplement its own maintenance resources by forming partnerships with organisations such as the Wildlife Trust, the Probation Service and BTCV. Using a £50/day volunteer contribution rate, the 25 volunteer days spent at Hatherley Park account for an additional financial contribution (equivalent) of £1250.

Implementation

The Cheltenham Greenspace Strategy is actively used to inform action plans for each of the Green Flag sites as well as the day to day management of all parks and open spaces. Feedback on this document is sought from all levels of staff and will be fed into the action plans of the next document to be produced.

The active involvement of local residents in the form of the Friends group has also made a significant contribution to the maintenance of Hatherley Park.
Appendix 1

Policy Context for Parks and Gardens in Cheltenham

In preparation for the writing of the Council’s Green Space Strategy and subsequent park management plans, a large piece of work was undertaken to understand the policy context in which the preparation of these documents was to be undertaken.

Various Council departments took part and a comprehensive review of policy and strategy took place. The completed work is available on request or can be viewed at:

http://www.cheltenham.gov.uk/downloads/Green_space_strategy__appendix_.pdf

Below is a list of the documents that were reviewed as part of this process.

NATIONAL POLICY

Planning Policy Guidance 17 Planning for Open Space, Sport and Recreation (July 2002)
National Audit Office (2006) Enhancing Urban Green Spaces
The Six Acre Standard, National Playing Fields Association (2001)
Rethinking Open Space, Kit Campbell, (2001)
Recognising Innovation and Imagination in Open Space Management, Institute of Leisure and Amenity Management (2005)
Public Parks Assessment, GreenSpace (2003)
Policy Note: Preventing Anti-Social Behaviour in Public Spaces, CABE Space (2004)
Improving Urban Parks, Play Areas and Open Spaces, Department of Transport Local Government and the Regions (2002)
Living Places: Cleaner, Safer, Greener, Office of the Deputy Prime Minister, (2002)
Parkforce, CABE Space 2005
The Park Keeper, English Heritage 2005
Creating Successful Neighbourhoods, Lessons And Actions For Housing Market Renewal, CABE (2004)
Does Money Grow on Trees? CABE Space (2005)
Start with the Park – CABE (2005)
How to Create Quality Parks and Open Spaces – ODPM (undated)
Development on Garden Land and Infill Sites in Cheltenham SPD CBC (2009)
Spaceshaper – A user’s guide – CABE space (2007)

REGIONAL AND SUB-REGIONAL POLICY CONTEXT

Regional Spatial Strategy (2006-2026)
Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (in progress)
Cotswolds Area of Outstanding Natural Beauty Management Plan (2008-2013)
Gloucestershire County Health & Well Being Strategy
Asset Management Plan
Gloucestershire Local Area Agreement (2007/08)
Local Transport Plan (LTP2)

LOCAL POLICY CONTEXT

Our Future, Our Choice, Cheltenham’s Sustainable Community Strategy (2008-2011)
Our Business Plan (2007-2010)
Civic Pride (2006 – 2026)
Climate Change Strategy (2005)
Community Safety Strategy (in production)
Comparative Site Assessment (in progress)
Conservation Area Appraisals (2007/08 - 2012/13)
Cultural Strategy (2002-2006)
Neighbourhood Management
Play & Free time Strategy
Playing Pitch Strategy
Sustainability Appraisal
Appendix 2: Review of Wildflower Planting

A REVIEW OF WILDFLOWER PLANTING IN CHELTENHAM BOROUGH COUNCIL’S PARKS AND GARDENS

Over the past few years Cheltenham Borough Council's parks development team has been experimenting with planting wildflowers in some of Cheltenham’s parks and gardens.

There are a number of reasons for experimenting with wildflower planting, including:

- Enhancing biodiversity
- Creating a sense of place with local distinctiveness
- Reducing maintenance costs

Parks and Gardens where wildflowers have been planted:

- Hatherley Park
- Springfields Park
- Naunton Park
- Jenner Gardens
- Windyridge Lane
- Beeches Play Area
- Winston Churchill Gardens
- Hesters Way Park

The reasons for experimenting with planting wildflowers will be explored first and then the experience of this type of planting in each of the parks will be described.
ENHANCING BIODIVERSITY

Policy and Legislative Background

Biodiversity Action Plans
At the 1992 Earth Summit in Rio the British Government was signatory to the International Convention on Biodiversity. In response to this it was required to draw up a national strategy to conserve our threatened native species and habitats. This is the UK Biodiversity Action Plan. At the 2002 Johannesburg World Summit the government committed to significantly reduce the rate of biodiversity loss by 2010.

The essence of the UKBAP is (1):

1. To conserve and where practical enhance: the population and natural ranges of native species; natural and semi-natural wildlife habitats; ecosystems that are characteristic of local areas.
2. To increase public awareness of, and involvement in, conserving biodiversity.
3. To contribute to the conservation of biodiversity on a European and global scale.

In order to implement this at a local level, each county was asked to prepare a Local Biodiversity Action Plan. The Gloucestershire Biodiversity Partnership has produced the Biodiversity Action Plan (BAP) for Gloucestershire. Its aim is to reverse the decline in habitats and species and to produce a county richer in wildlife. Cheltenham Borough Council is part of this partnership and in support the BAP has undertaken a biodiversity audit of the borough and also designated a number of Local Nature Reserves.

Legislation
In the years following the Earth Summit, the importance of conserving and enhancing biodiversity was further underpinned by both European and UK legislation. An example of this is the Natural Environment and Rural Communities Act (NERC) 2006. Section 40 of this Act sets out a Duty for all local authorities and other public authorities in England and Wales to have regard to the conservation of biodiversity when exercising their functions. The duty to conserve biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them (2).

Planning
The planning system is seen as being key to delivering the Government’s objectives for habitats, species and ecosystems. Planning Policy Statement 9: Biodiversity and Geological Conservation (3) sets out the government’s planning policies on the protection of biodiversity and geological conservation. In addition, the UK BAP and regional and local BAPs can be material considerations in the preparation of regional spatial strategies, local development documents and the making of planning decisions.

National Indicators
Increasing biodiversity is one of the indicators against which the performance of local government is judged by central government. This indicator – NI197 Improved local biodiversity – active management of local sites - is reported at unitary/upper tier level as local sites are generally operated at this level.
ENHANCING BIODIVERSITY

Green Infrastructure (GI)

Local authorities are major landowners. As such they have a direct impact on biodiversity through the ways in which they manage their land. Management of municipal green spaces should aim to fulfil the requirements of the Biodiversity Duty.\(^{(2)}\)

Planting wildflowers in public parks and gardens is an attempt to reverse the decline in biodiversity caused by the loss of such habitat from agricultural land. However, it must be born in mind that, in many cases, the areas concerned are quite small – beds and borders. In planting wildflowers in these areas, we are experimenting with a style of municipal planting which, it is hoped, will be more beneficial to bird and insect life, than either grass or traditional bedding schemes. In this situation habitats are not conserved or re-created but approximated to. In order for these wildflower areas to have value at a landscape scale they must form part of a wider green infrastructure.

Green infrastructure is a term used to describe the networks of green spaces, rivers and lakes within and between our villages, towns and cities\(^{(4)}\). It includes both designed spaces (such as parks) and natural areas. It takes into consideration all landscape scales – from national and regional through town and city to local neighbourhood.

The conventional understanding of infrastructure applies to our built and engineered environment – roads and utilities services, schools, hospitals – without which our society could not function.

Through the development of the concept of Green Infrastructure, landscape practitioners are seeking to highlight the importance of green assets such as parks, woods and water courses in delivering a healthy and sustainable society. An important aspect of Green Infrastructure is its delivery of environmental services such as:

- rainwater attenuation through sustainable urban drainage systems (SUDS)
- reducing the urban heat island effect
- improving air quality.

It deserves to be given the same priority and investment as ‘grey’ infrastructure.

Fundamental to the GI approach to landscape planning and management is the concept of connected, multifunctional spaces\(^{(4)}\).

- **Multifunctional spaces**
  In the past, green spaces were generally thought of as having a single function e.g. parks were designed for recreation with neat, ornamental planting schemes; nature reserves were dedicated to preserving particular species; sports pitches were for team games. In a GI approach such spaces would be managed to be multifunctional. So a park would not only be a recreational asset but could offer an opportunity to enhance the biodiversity of the local area through varying its planting and management. Wildflower edges to playing pitches can provide visual amenity and wildlife food and habitat, turning a turf field into a multifunctional space. SUDS offer opportunities to create wildlife habitat as well as providing drainage.
**Connected spaces**

Connecting green spaces together in a network can have a more beneficial effect than the sum of individual, isolated spaces. For example, wildflower areas created in parks will, of necessity, be of limited size. However, from the point of view of enhancing biodiversity, size can be crucial factor, as many species have minimum area thresholds. Parks and nature reserves should not become wildlife enclaves but should be connected together, increasing the area through which wildlife can move, and so contributing to species resilience over a wider area. For people too, connected spaces provide greater opportunities to integrate exercise and recreation into daily life through walking and cycling.

However, to achieve the benefits offered by connected, multifunctional spaces – economic and social benefits as well as environmental – the GI approach must be embedded in land use planning. Currently, this is not generally the case, with ‘grey’ infrastructure being prioritised at the expense of the natural environment.

In ‘Start With The Park’⁵, CABE Space points out that much Green Infrastructure is already in existence – parks, domestic gardens, marshes, woodlands, tree-lined streets, cemeteries, squares, sports fields, allotments, green corridors, play areas and farms. Management of these areas needs to be considered with a view to creating connected, multifunctional spaces.

CBC Operations is already addressing this issue through experimenting with different styles of planting, aiming to contribute to the creation of a green infrastructure within Cheltenham by making use of all the assets it manages – parks, gardens, open spaces, cemeteries, trees, lakes, sports pitches, grass verges.

Wildflowers in parks and gardens should be viewed within this context – management for both biodiversity and amenity contributing to a wider green infrastructure.
ENHANCING BIODIVERSITY

Wildflowers in Municipal Parks and Gardens

Cheltenham Borough Council’s Green Space Strategy\(^6\) notes opportunities for encouraging biodiversity through managed ‘wild’ areas in its amenity green spaces, cemeteries and churchyards and outdoor sports facilities. It also acknowledges the potential for creating linked corridors of green space between the town’s parks and gardens.

Traditional wildflower hay meadows are a result of a system of land management which persisted over a long period of time. Some ancient meadows are over 1,000 years old. This system of land management, combining cutting grass for hay and also seasonal grazing by livestock, favoured the proliferation of wild flower species which thrived on nutrient-poor soil. Removing the grass for hay each year resulted in soil fertility being kept relatively low. The natural cycle of dead and decaying plant material fertilising the soil was interrupted by the land management system, allowing plants which would be out-competed by grasses on nutrient rich soils to thrive. Perennial wildflowers traditionally associated with hay meadows are, therefore, plants that have evolved to thrive on nutrient poor soils.

The advent of intensive agriculture in the 20\(^{th}\) Century spelt doom for traditional meadows, with fertilisers improving soil fertility and so favouring grasses, and herbicides targeting wildflowers considered as ‘weeds’. During the last 60 years 98% of our wildflower hay meadows have been destroyed due to intensive agriculture and building development.\(^7\)

Creating wildflower meadows in parks and gardens requires a system of management that approximates to traditional agricultural management of hay meadows but within the constraints of an urban setting. In particular the maintenance of these areas must be scheduled to ensure that a sustainable cycle is achieved.

There are a variety of wildflower seed mixes available, some of which contain non-native species. Selection of a seed mix requires balancing the need for colour and visual amenity for people with the best opportunities for enhancing biodiversity.

Best Practice Advice

The following is a quote from CABE Space – ‘Making contracts work for wildlife: how to encourage biodiversity in urban parks’\(^8\)

*To integrate greater wildlife value into green spaces not traditionally seen as suitable for wildlife, there must be greater emphasis on appropriate management and maintenance, both for wildlife and for public acceptability and enjoyment. In well-used places, in more formal areas and within town and city centres, it may be necessary to introduce clear signs of care and intentional maintenance such as crisp edges and clear sightlines. This is particularly so at entrances, along paths and routes and in main gathering areas. Making wildlife areas much more colourful and interesting is a sure way of increasing wider public acceptance, as is introducing attractive plants with known wildlife benefit into more formal settings. In town centre spaces or more intimate public or community gardens, appropriate non-native plants can be used to benefit wildlife, to extend and enhance the season of display and to provide nectar sources when many native plants have finished flowering. Context is very important in matching the most appropriate maintenance specifications to a particular site.*
CREATING A SENSE OF PLACE WITH LOCAL DISTINCTIVENESS

Cheltenham is known as ‘the garden town of England’ on account of its fine parks, gardens, open spaces and tree lined streets. These provide an excellent basis on which to create a local green network which can link into a county-wide green infrastructure.

Parks development and management must address the vital role green spaces play in contributing to Cheltenham’s distinct identity. The town’s parks and gardens are an important part of its heritage. They also contribute to the economic activity of the town by attracting visitors.

Wildflowers can have both an aesthetic and ecological role to play in contributing to local distinctiveness.

Aesthetic Role

Swathes of wildflowers can become ‘signature’ planting for towns and neighbourhoods. This approach is exemplified by the Borough of Telford & Wrekin. (See CABE Space: Making contracts work for wildlife: how to encourage biodiversity in urban park).

The Borough of Telford & Wrekin, West Midlands has been using annual wildflowers to create colourful displays on roundabouts and along traffic corridors since 2001. The meadows were used to replace grass and over-mature shrub plantings. This style of naturalistic planting has created a distinctive landscape that has proved popular with the public. Such has been the success of the wildflowers that the borough’s tourism service has commissioned postcards of the roundabouts, to promote the image of the town.

However, it should be noted that annual wildflower meadows are not necessarily the lowest cost option. Telford and Wrekin’s aim was to provide colour at a price similar to maintaining a shrub border. The advantages of the annual wildflower meadows are their greater visual appeal and role in supporting biodiversity when compared to mown grass.

There is a danger, if wildflower planting becomes the norm in public parks and highways, that - while it would be colourful and attractive - it would not necessarily be locally distinctive. There is scope here to work with seed suppliers, to produce a seed mix which is characteristic of a particular town or locality, but which still has a long, colourful, flowering season.

Ecological Role

Telford and Wrekin’s roundabout meadows are created using a mix of native and non-native annual wildflowers.

There has been some debate amongst horticulture and ecology professionals as to the respective merits of native versus non-native plants in promoting biodiversity. Some would advocate the use of native plants only. However, others support the use of non-native species too, especially to extend the flowering period and provide nectar sources at a time when native species are not in flower.

The charity Plantlife is dedicated to the conservation of our native wild plants. It highlights the resource imbalance between funding for conservation of wildflowers when compared to other wildlife.

Wildflowers are the ‘poor relations’ of conservation funding. There could be opportunities, within municipal parks and gardens, to introduce native wildflowers and so contribute towards their conservation.
Ideally, if seeking to support local ecological distinctiveness, planting and management should support the aims of the Gloucestershire BAP\(^{(10)}\). The Gloucestershire Biodiversity Partnership has agreed the following selection criteria to determine the Priority Species List for Gloucestershire.

- Species on the UKBAP Priority Species List which are found in Gloucestershire
- Species whose local decline meets national BAP criteria for marked decline
- Red Listed birds
- Nationally Scarce plants
- Culturally valued species – species which are particularly associated with or characteristic of Gloucestershire

A full list of the nationally scarce plants which are included in the Gloucestershire BAP can be found in Appendix 2 or alternatively visit the Partnership’s website: [http://gloucestershirebap.org.uk/actionplan/priority-species.php](http://gloucestershirebap.org.uk/actionplan/priority-species.php)

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### Note: There could be an opportunity here for CBC Operations.

Indicator **NI197 Improved local biodiversity – active management of local sites**, requires the council to show that it is actively managing local sites under its control in a way that will increase biodiversity.

If CBC’s nursery could be utilised to grow on and bulk up the priority species, prior to planting out, it would be providing a valuable service towards meeting the requirements of NI197, and the council fulfilling its biodiversity duty.

In order to derive the greatest benefit for wildlife, wildflowers meadows should be left to stand over winter so that the seed heads can provide food for birds. However, this can result in an untidy appearance leading to complaints from the public.

*In order to build public support for this style of planting, it is essential to communicate to the public the ecological purpose of wildflower meadows.*

Communication could be through:

- Information panels on site
- Friends groups
- The council’s website
- Educational programmes in schools centred on the local park
- Meetings, talks, newspaper articles etc.

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[Information panel in Jenner Gardens](Image)
REDUCTION IN MAINTENANCE COSTS

Wildflowers are not necessarily the lowest cost option for management of parks. They are lower cost than traditional bedding schemes, but almost always higher cost than grass. What they offer is:

- A low cost option of flower colour over a long flowering season. This is particularly so if annual mixes are used.
- The additional benefit of enhancing biodiversity by providing food and habitat for wildlife.

The first step in reducing maintenance costs is to be clear about the outcomes required and then specify the minimum maintenance operations necessary to achieve these outcomes.

Contracts and specifications

Specify:
- outcomes required
- operations required to achieve them

Outcomes Required

- Create wildflower areas which provide visual amenity year on year at the same time as increasing biodiversity. Experience of wildflowers in Cheltenham’s parks and gardens would suggest that this is best achieved by either annual wildflower meadows or mixed annual and perennial wildflower meadows.
- A more sustainable style of planting requiring reduced inputs. Examples of inputs are: water for irrigation, fertiliser. Reducing inputs not only lowers the cost of maintenance but also has environmental benefits.

Operations Required

Creation of mixed annual and perennial wildflower areas requires the broad steps listed below. Each of the steps can be further divided into specific horticultural cultivations, which can be costed.

- **1st Year**
  - Creation of Perennial Wildflower Meadow
    1. Ground preparation
    2. Sowing seed
    3. Mowing – year 1

- **2nd and Subsequent Years**
  - Maintenance of Perennial Wildflowers and Addition of Annual Wildflowers
    1. Mow in March
    2. Spot apply glyphosate to remove any residual weeds in mid-April
    3. Rake or harrow to create seed-bed where annual seeds are to be sown.
    4. Sow annual seed in early May at a rate of 2-3 grammes per square metre
    5. Hand-weed or rogue problem weeds once or twice if required. On less visible sites: don’t hand-weed and use only one application of herbicide.

In wilder areas, meadows can be left to stand over winter for the benefit of seed-eating birds.

Monitoring arrangements
Within CBC's Operations Division, it would be advisable for monitoring of wildflowers to be undertaken by both the parks development team and landscape services team. This way the wildflowers can be assessed from both the design and maintenance aspects. It is important that both teams work together to create sustainable planting regimes for the town.

Monitoring should assess:
- Aesthetic appearance at different times of the year.
- Biodiversity enhancement.
- Public perception of wild flowers at different times of the year.

The key costs which need to be monitored are:
- Cost of annual seeds.
- Cost of operations - this can be estimated by monitoring the time taken to carry out specific horticultural cultivations and applying the standard minute costs.
- Cost of disposing of the arisings. A sustainable method of dealing with the arisings should be sought.
EXPERIENCE OF WILDFLOWERS IN CHELTENHAM’S PARKS AND GARDENS

CBC’s Operations team has experimented with planting wildflowers in: Hatherley Park; Springfields Park; Naunton Park; Jenner Gardens; Windyridge Lane; Beeches Play Area; Winston Churchill Gardens; Hesters Way Park.

In some areas seed mixes of perennial, native wildflowers have been used; in others annual mixes which include exotic wildflowers. The different sites have yielded varying degrees of success, both in terms of cultivation outcome and public response.

Each site will be reviewed individually.

Hatherley Park

Background
In 2003 Hatherley Park was the first park in Cheltenham to have a wildflower area introduced into its planting scheme.

- The original wildflower area was at the base of a group of newly planted birch trees. This composition was intended to provide colour and focus along one of the main paths of the park.

- When the central area of the park was refurbished in 2005, the old concrete cascades were removed and a new path and pond installed. One of the aims of this new design was to enhance the biodiversity of the park. The pond was planted with wildlife friendly aquatic plants and swathes of wildflowers were established on either side of the new path.

- The following year, in response to comments from Green Flag judging, a border of perennial wildflowers was added along the south-west perimeter.

*Hatherley Park has won a Green Flag Award on five successive occasions.*

Seed Mix
Perennial seed mixes from a number of seed suppliers have been used including Naturescape and Pictorial Meadows.

**Purpose of Wildflower Planting**
To enhance the biodiversity of the park.

**Successes and Failures**
Initial experiments with wildflowers proved successful, providing colourful displays throughout the summer. However, as time has gone by, it has proved difficult to maintain flower display in all three areas. The experiments in Hatherley Park highlight a problem of using perennial mixes in municipal parks.

Depending on the choice of seed mix, the first year of perennial wildflower planting should provide excellent flower colour. This is usually due to annual wildflower seeds being included in the composition of the seed mix, specifically to provide flower display while the perennial plants are getting established. In subsequent years the perennial flowers should provide seasonal colour, texture and form.

In order for this to be successful, however, the area needs to be maintained in a way which approximates to traditional agricultural hay-meadow management i.e. cutting twice a year, removing the arisings, scarifying the ground. If this is not done then more vigorous grasses and weeds will out-compete the wildflowers and the planting scheme will deteriorate. In addition it may be necessary to hand rogue weeds to prevent them gaining a foothold within the wildflower mix.

The difficulty of maintaining the wildflower areas has led to two of the areas in Hatherley Park being mown out.

- The area under the birch trees required hand maintenance, which proved to be too resource intensive to provide, and the weeds took over.
- The areas on either side of the new path to the pond became infested with Mare’s Tails which proved too difficult to eradicate. This is particularly disappointing, since the pond itself has proved very successful in improving biodiversity in the park. An aquatic survey, carried out by an independent consultant, found great crested newts in the pond, as well as other newts and toads.

The perimeter border still exists but flower display is much reduced with stronger elements of the seed mix taking over and resulting in less plant variety.

**Lessons Learned**
- Rigorous ground preparation, including eradicating perennial weeds, is essential to ensure a successful outcome.
- It is difficult to maintain flower display, over a period of years, from seed mixes of perennial plants. It should be borne in mind that perennial wildflowers, as found in traditional hay meadows, provided a subtle mosaic of colour in an agricultural landscape. It is difficult to translate this into a border in a park – a setting which requires bolder colour in order to achieve a visual effect.
- Enhancing biodiversity should not result in sacrificing visual amenity (see the CABE Space advice above). Wildflower areas planted to enhance biodiversity should also provide attractive, colourful flower displays for park users.
Springfields Park

**Background**
Springfields Park is Cheltenham’s newest park. It has been created on the site of the former Welch Road Playing Field, which was a large, desolate green field surrounded by residential areas. About five years ago a new pedestrian path was installed, a toddler play area was provided in the SW corner of the site and a junior play area was installed approximately half way along the path. Apart from these improvements, the rest of the site remained as mown grass with little seasonal variation and low biodiversity value.

This open space suffered from a great deal of anti-social behaviour – burned out cars, bike racing, drug-dealing.

During the past three years, as part of a regeneration programme for the area, a new community centre has been built, incorporating a medical centre and pharmacy. The regeneration programme included transforming the open space into a new ecological park. The aim was to create an outdoor amenity for the local area, enhancing local distinctiveness and providing opportunities for increasing biodiversity.

**Seed Mix**
Emorsgate native seed mix. Seeds are of British provenance.

**Purpose of Wildflower Planting**
- To enhance biodiversity by providing food and habitat for wildlife.
- To provide seasonal variation in colour.

Springfields Park – wildflowers along a path – 2nd year after planting
Successes and Failures
During first year of planting, the perennial wildflowers provided good flower colour. However, in subsequent years, flower colour has declined and the planting has grown to look 'untidy', drawing adverse comments from the public.

Management of the park has required more resources – for watering, herbicide spraying and cutting - than the original grass field which had only required mowing. Litter picking is also more time-consuming.

There is also the problem of how to deal with the arisings. As mentioned above for Hatherley Park, perennial wildflower meadows need to be maintained in a way which approximates to traditional agricultural hay-meadow management i.e. cutting twice a year, removing the arisings, scarifying the ground. The difficulty with Springfields Park is that the area of wildflowers is so extensive that it leads to a substantial amount of arisings being generated. This cannot be used for cattle feed or bedding because no guarantee can be given that it is free of litter. The only option is to bale it, take it off site and compost it. It is, however, the extensive nature of the wildflower planting that makes it so advantageous for biodiversity and this would be compromised if the area of wildflowers was reduced in size.

Lessons Learned

- Where a design shows extensive areas of wildflowers with paths mown through them, it is essential that these paths are mown at the beginning of each growing season and regularly maintained in order to ensure adequate access around the park.
- Path edges must be mown 1 metre on either side of the path to ensure a well-maintained appearance.
- Regular litter-picking must be undertaken.
- Allow a budget for sowing seeds of annual wildflowers to boost the colour impact of the perennial mix, so providing greater visual amenity for park-users.
- A sustainable method of dealing with the arisings must be developed.
**Naunton Park**

**Background**
Naunton Park is a long-established, residential park. It is composed of two areas: a formal rose garden and a playing field. In 2004 the rose garden was transformed with a Peoples Places lottery grant. The old, tired rose beds were replaced by a mixed planting scheme based around small shrubs and herbaceous perennials.

*Naunton Park has won a Green Flag Award on four successive occasions.*

Experiments with wildflowers have been taking place since 2006, when a small area of wildflowers was planted next to the play area.

In 2009, in response to comments from Green Flag judging, an extensive wildflower border was created along two sides of the playing field.

**Seed Mix**
2006, small area next to play area: Native British Wildflower - Cornfield Cereals; Cornfield Flowers; Long Season Meadow mix. Also added poppy seed and linseed.

2009, extensive border: Emorsgate native seed mix. Seeds are of British provenance.

**Purpose of Wildflower Planting**
- To increase biodiversity.
- To provide educational opportunities for children to see traditional wildflowers and the wildlife they support.

![Wildflowers in Naunton Park Play Area](image)

**Successes and Failures**
The small area of wildflowers was successful. In 2007, this was recognised with a ‘Blooming Wild’ award from Britain in Bloom.
The perimeter border was not a success. It became very weedy, possibly because a seed bed of agricultural weeds had been disturbed during ground preparation, and in response to adverse comments from the public, the wildflowers were mown out later in the summer.

**Lessons Learned**

Key problems with the perimeter border were:

- **The extent of the wildflower border.**
  Best practice advice is to ‘start small’ with wildflower planting, and build up experience of maintaining such areas. Areas can then be gradually extended, allowing plenty of time for ground preparation. Unfortunately this was not the procedure followed in this case due to the response time needed to meet the Green Flag judging date.

- **The seed mix selected.**
  The Emorsgate EM2 mixture is 80% meadow grasses, 20% wildflowers. As has already been mentioned, for amenity areas it is essential to provide more ‘flower power’ than this seed mix can give. The EM2 mix could be used in small areas, but it would need to be accompanied by swathes of annual wildflowers to provide the visual amenity expected in a public park.

- **There have been good lessons learned from this experiment, in particular the need to use different seed mixes in an area in order to best address both the needs of biodiversity and amenity.**

- **It would have been better to have left areas of the perimeter unmown in order to see what wild flowers were already present, rather than creating a new, very large border with an inappropriate seed mix and a cultivation method which disturbed agricultural weeds.**

- **Alternatively, smaller swathes of wild flowers could have been created, perhaps experimenting with seed from different suppliers to determine which seed mix proved most appropriate for the site. Once the best seed mix had been decided, and a maintenance regime developed, the border could have been gradually extended along the perimeter of the playing field.**
Jenner Gardens

Background
Jenner Gardens is the graveyard of Cheltenham Chapel. For a long period it had been left derelict and became plagued with anti-social behaviour. In 2004 the Friends of Jenner Gardens was formed with the aim of transforming the derelict graveyard into a public garden in honour of Edward Jenner, the pioneer of vaccination. A new landscape scheme was designed by CBC’s parks development team. Funds were obtained from a number of sources by the Friends. Landscape works began in 2008 and were completed in 2009.

The planting scheme consists of shrubs – including roses and a lavender hedge - climbing plants, groundcover and wildflowers. The wildflowers cover the central area of the graveyard, which it would be difficult to plant and maintain in a more traditional manner.

Jenner Gardens was awarded a Cheltenham Civic Award 2009, a Neighbourhood Award by Heart of England in Bloom and an Outstanding Achievement Award by Cheltenham in Bloom.

Seed Mix
Pictorial Meadows - annual wildflowers - ‘Marmalade’ mix.

Purpose of Wildflower Planting
- To increase biodiversity
- To provide a colourful display of flowers over a long season

Successes and Failures
This seed mix has proved very successful in this location. As the name suggests, the flower colour consists mostly of oranges, yellows and reds, providing excellent visual impact. Favourable comments have been received from the public.

The Friends of Jenner Gardens monitor the wildlife in the garden, both informally and with surveys. The planting scheme appears to be attracting birds and insects into this town centre garden.

The wildflowers were allowed to stand until November. At this point they became too untidy for a small, town centre space and were cut down. As far as providing food and habitat for wildlife is concerned, it would be best to leave them standing until after Christmas but this cannot always be reconciled with providing a public amenity space.

Lessons Learned
- Selection of colour scheme and seed mix is very important.
- Annual wildflowers provide low cost, high visual impact flower colour over a long period.
- Annual wildflowers, including non-native species, have a role to play in supporting biodiversity.

Windyridge Lane
Background
Three round planting beds in the verges at the junction of Windyridge Lane and Swindon Road are usually planted with bedding plants. Wildflower seed has been sown in the beds in the last couple of years to reduce costs.

Seed Mix
2008: Pictorial Meadows Pastel Annual Mixture
2009: Pictorial Meadows Short Mix

Purpose of Wildflower Planting
- To provide a long-lasting colourful display.
- To reduce costs.

Successes and Failures
In both cases the seeds provided long lasting colour in the street-scene.

Lessons Learned
- Annual wildflowers are a good choice for long-lasting colour.
- In 2008 the seed mix resulted in flowers considered to be too tall, given that the beds are at a busy road junction. A shorter growing mix was planted the following year.

Beeches Play Area

Background
Beeches Playing Field in Charlton Kings has three football pitches, a play area, skate ramps and a basketball hoop. There is a pavilion for changing on site.

Seed Mix
Native British Wildflowers: Cornfield Cereals; Cornfield Flowers; Tall Herbs; Long Season Meadow mix.

Purpose of Wildflower Planting
To soften and ‘zone’ the general play area. A quiet zone was created surrounded by wildflowers and trees.

Successes and Failures
Flowering in the first season was successful, but declined in subsequent years.

Lessons Learned
As has been experienced with other sites, relying on perennial wildflowers to provide flower colour in the second and subsequent years after sowing is not successful. Sowing annual wildflower seed should be budgeted for.
Winston Churchill Memorial Gardens

Background
Winston Churchill Memorial Gardens is situated in the Lower High Street.

There were problems with local children climbing the east boundary wall of the park, and annoying residents in the neighbouring properties. There was also an issue with children using the wall as a ‘goal’ when playing football – the ball would often be kicked over into the garden on the other side. The noise of the children playing also annoyed the neighbours.

Planting a border along the wall would prevent it from being used as a ‘goal’, and also deter children from climbing it.

The boundary wall is the original wall to a cemetery, the New Burial Ground, which had occupied the site since the early 1800s. In 1966 the cemetery was converted to a park. Given the age of the wall, it requires re-pointing and regular inspection. It was essential, therefore, that the planting scheme allowed for easy access for maintenance. This ruled out a shrub or mixed border. A perennial border, or bedding would both have allowed access, but the cost implications of either of these were prohibitive. So it was decided to create a wildflower border, 2-3m in width, along the whole length of the wall.

Seed Mix
2006
Landlife: Cottage Garden, Wildflower meadow with grass, Pictorial Meadows mix

2008
Native British Wildflowers: Cornfield Cereals; Cornfield Flowers; Tall Herbs; Long Season Meadow mix. Also added poppy seed and linseed.

The bulk of the seed mix was annual seeds.

Purpose of Wildflower Planting
- Provide buffer planting between the park and the boundary wall in order to deter children from climbing the wall and using it as a ‘goal’.
- To soften the boundary of the park.
- Increase biodiversity in the park.
- Educational reasons: children would have the opportunity to see cereal crops and their associated traditional wildflowers. The meadow mix was used to give a soft transition between the short grass and the cornfield cereals, so mimicking traditional cereal field headlands.
- Cost: wildflowers offered a low-cost option of planting such a long border

Successes and Failures
This seed mix worked well for the first year, with flowering declining over the next two years.

The seed mix was chosen for a long flowering season and also for its mix of grasses – this would allow it to be mowed out if unsuccessful. Unfortunately, these grasses tend to dominate after the first year, reducing flower display.

Lessons Learned
As in a number of other parks, grasses dominate after the first year. A sowing of annual seeds should be budgeted for to maintain flower display.
Hesters Way Park

**Background**
Hesters Way Park was opened in 1957. The design of the park is informal, including a number of curving ‘island’ beds. For many years these were planted with herbaceous plants. However, in 2008, due to the age and deterioration of the plants, wildflowers were sown instead.

**Seed Mix**
Pictorial Meadows Golden Summer Perennial mix
Pictorial Meadows Pastel Annual mix

**Purpose of Wildflower Planting**
- To reduce cost.
- To provide long-lasting summer colour.
- To increase biodiversity.

**Successes and Failures**
The wildflowers looked lovely in the first year. However, in the second year, there was no re-sowing of annual wildflowers. The resulting flower display from the perennial mix was disappointing and the beds looked untidy. This resulted in adverse comments from the public.

**Lessons Learned**
- A number of the park users in Hesters Way Park remember the days when the council had the budget to plant bedding plants in most of Cheltenham’s parks. Any other style of planting is seen to fall short of the ‘gold standard’ of bedding displays. They are yet to be convinced that resource constraints mean that this style of planting is no longer affordable.

- If Cheltenham’s parks are to be managed in a more sustainable way, but still providing colour and seasonal interest, it is essential to convince the public of the merits of new styles of planting. This can only be achieved through communication. This, perhaps, is what has been lacking in this park.

**SUMMARY**
Cheltenham Borough Council’s parks development and landscape services teams have been experimenting with planting wildflower meadows in the town’s parks and gardens for a number of years. Valuable experience has been gained into the selection of seed mixes, ground preparation and maintenance regimes. Based on this experience, recommendations can be made for the creation and maintenance of wildflower meadows in the future.

**Recommendations**

- Ensure adequate ground preparation. (See Appendices below)
- Start by cultivating small areas which are clear of trees and shrubs. This will allow maintenance regimes to be developed which can then be applied to larger areas.
- Use perennial mixes to provide the ‘backbone’ of a planting scheme, but budget for sowing annual wildflower seeds each year to provide colour impact.
- Communicate with the public about the purpose of the wildflower planting and its maintenance regime.
- Do not allow Green Flag to determine the nature and extent of wildflower planting. Instead, decide what is best for the park – in terms of enhancing biodiversity, park users’ requirements, flower display, maintenance resources and costs – and state the case for these decisions in the Green Flag management plan.
- Where a design shows extensive areas of wildflowers with paths mown through them, it is essential that these paths are mown at the beginning of each growing season and regularly maintained in order to ensure adequate access around the park.
- Path edges must be mown 1 metre on either side of the path to ensure a well-maintained appearance.
- Regular litter-picking must be undertaken. Schedule a litter-picking session prior to mowing if the cuttings are to be composted.
- Monitor planting and keep records in order to develop a sustainable, affordable planting regime which has public support. Monitor:
  - Seed mixes
  - Maintenance regimes
  - Aesthetic appearance in different seasons – make a photo-record.
  - Biodiversity improvements
  - Public reaction
  - Costs
  - Record successes and failures.

Wildflower meadows have a role to play in supporting biodiversity within a wider green infrastructure. They can contribute to a sense of local distinctiveness, and offer an opportunity for conserving threatened native plant species. They are not a ‘no-cost’ option, but do provide a means of creating long-lasting, seasonal flower colour that also helps to fulfil the council’s duties and responsibilities with respect to conserving and enhancing the county’s biodiversity.

**Appendix 1**

**CREATING WILDFLOWER MEADOWS**

There are different approaches to the creation of wildflower meadows depending on whether the meadow is to be composed of:
• Annual flowers
• Perennial flowers
• A mix of annual and perennial flowers.
Each of these approaches has advantages and disadvantages in terms of biodiversity, management technique and visual appeal.

**Annual Wildflower Meadows**
Annual wildflowers meadows provide long-lasting, colourful flower displays.

**Creating Annual Wildflower Meadows**
The following advice on the creation of wildflower meadows is based on a case study of Telford and Wrekin’s experience in *Making contracts work for wildlife: how to encourage biodiversity in urban parks* CABE Space\(^{(8)}\)

• Apply glyphosate herbicide in late February.
• Flail mow in mid-March.
• Spot apply glyphosate to remove any residual weeds in mid-April.
• Power harrow to create seed-bed.
• Sow seed in early May at a rate of 3 grammes per square metre.
• Rake or harrow.
• Hand-weed or rogue problem weeds once or twice if required.
• On less visible sites: don’t hand-weed and use only one application of herbicide.
• Leave meadows to stand over winter for the benefit of seed-eating birds.

**Note:** As winter approaches, and especially after heavy rain and the first frosts, wildflower areas can look very untidy, as if no-one is bothering to maintain them. This can lead to complaints from the general public. In an urban environment, the management of these areas can be a balancing act between leaving the area uncut for as long as possible to provide food for wildlife, and maintaining a cared-for appearance (See CABE Space Best Practice advice).
Perennial Wildflower Meadows
Perennial wildflower meadows do not have the stunning display of colourful flowers that is achieved with annual wildflowers. The flower display is more subdued, especially after the first year. The purpose of planting a perennial meadow is not so much visual display but the creation of a sustainable plant community that will enhance biodiversity.

Creating Perennial Wildflower Meadows
There are a number of ways of establishing perennial wildflower meadows (7):

- **Changing existing management**
  An existing field or parkland is left unmanaged for a few months to see what wildflowers may already be present. The area must then be cut every year in late August/early September and the ‘hay’ removed. The aim is to reduce soil fertility so that wildflowers can compete with grasses. Introducing Yellow Rattle will also help to control grasses, since it is semi-parasitic on their roots. A disadvantage of this method is that it can take many years to yield results.

- **Sowing wildflower seed**
  This is the more appropriate option for urban parks and gardens and is outlined below.

1. **Ground Preparation**
   **Time:** July
   **Method**
   - Remove turf and 5cm of topsoil.
   - Rake ground to create fine tilth.
   - Leave for 3-4 weeks to monitor weed growth. Remove weeds.

2. **Sowing Seed**
   **Time:** early autumn
   **Method**
   - Sow 0.5g of wildflower seed mixed with 1.0-1.5g of grass mix per square metre on a day with no wind.
   - A grass mix of bents and fescues works best. Rye-grass and other vigorous types are to be avoided.
   - Immediately after sowing, rake the surface lightly and firm with a roller.
   - Adding Yellow Rattle can help limit the growth of grasses, so reducing their competition with the wildflowers.

3. **Mowing**
   **Year 1**
   **1st Cut**
   When the seeds have germinated and the grasses have reached a height of about 10cm. This will check weeds such as thistle and groundsel.

   **Subsequent Cuts**
   Every 6-8 weeks. Always remove cuttings.

   **Subsequent Years – Twice a Year Mowing Pattern**
   **Time:**
   (1) early spring - late March to early April
   (2) end of summer - late August to September
   **Note:** The above are guidelines only. Areas of coarse grass can be cut in June/July to depress soil fertility; areas of wildflowers can be left until the seeds have set – or even until Christmas to provide food for wildlife.

   **Method:**
   - Mow in spring to remove old growth and knock back vigorous weeds.
• Leave untouched through spring and summer to allow wildflowers to reach their full height.
• Mow again in late summer, after the flowers have set seed.
• Leave the ‘hay’ out for a while to allow the birds to feed on the seed.
• Rake to remove arisings and dead plant material, otherwise they will add unwanted nutrients to the soil. A thatch of dead plant material covering the ground will also prevent Yellow Rattle from germinating, since the seed needs to make contact with the soil in order to germinate.
• Lightly scarify the meadow with a chain harrow (or rake on smaller sites). This mimics the ‘poaching’ of the soil by livestock which would have grazed on traditionally managed hay meadows after they were cut.
• Scatter Yellow Rattle seed over the meadow and rake in.

**Mixed Annual and Perennial Wildflower Meadows**
This may offer the best compromise between planting for wildlife and planting for visual amenity.

A seed mix of perennial wildflowers can be sown to provide year-round food and habitat for wildlife. Annual wildflowers can then be sown within and around this area to give flower colour for visual amenity, as well as contributing to the food supply for birds and insects.

Mixing annual and perennial wildflowers offers the greatest opportunity for enhancing biodiversity.
• Annual wildflowers support populations of pollinating insects and seed-eating birds.
• Herbaceous flowering grassland communities provide habitat for small mammals and, in turn, also attract their predators.

**Notes:**
• Management of adjacent land can affect the composition of wildflower meadows. The use of fertilisers can result in too much nitrogen and phosphorous being present in the soil for many wildflowers, with the result that species such as nettle, hogweed and cow parsley predominate.
• Yellow Rattle seed is only viable for a few months. Sow seed on bare ground between autumn and early spring (March).
• Leave raked piles of cuttings for several days to allow invertebrates to escape.
## Appendix 2

**GLOUCESTERSHIRE BIODIVERSITY ACTION PLAN**

### PRIORITY SPECIES OF PLANTS

<table>
<thead>
<tr>
<th>Vascular Plants</th>
<th>Non Vascular Plants</th>
<th>Fungi and Lichens</th>
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<tr>
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<td>Lesser Bearded Stonewort</td>
<td>Devil's Bolute</td>
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<tr>
<td>Prickley Sedge</td>
<td>Starry Stonewort</td>
<td>Pink Meadow Cap</td>
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<td>True Fox Sedge</td>
<td>Tassel Stonewort</td>
<td>a lichen</td>
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<td>Cornflower</td>
<td>Great Tassel Stonewort</td>
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<td>Red-tipped Cudweed</td>
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<td>Spreading-leaved beardless-moss</td>
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<td>Broad-Fruited Corn Salad</td>
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<td>Vascular Plants</td>
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<td><strong>Nitellopsis obtusa</strong></td>
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<td><strong>Carex vulpina</strong></td>
<td><strong>Tolypella intricata</strong></td>
<td><strong>Bacidia incompta</strong></td>
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<td><strong>Centaurea cyanus</strong></td>
<td><strong>Tolypella prolifera</strong></td>
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<td><strong>Filago lutescens</strong></td>
<td><strong>Trichomanes speciosum</strong></td>
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<td><strong>Gentianella anglica</strong></td>
<td><strong>Rhynchostegium rotundifolium</strong></td>
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<td><strong>Juniperus communis</strong></td>
<td><strong>Weissia sterilis</strong></td>
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<td><strong>Potamogeton compressus</strong></td>
<td><strong>Orthotrichum sprucei</strong></td>
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<td><strong>Scandix pecten-veneris</strong></td>
<td><strong>Seligeria calycina (paucifolia)</strong></td>
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<td><strong>Thlaspi perfoliatum</strong></td>
<td><strong>Weissia rostellata</strong></td>
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<td><strong>Torilis arvensis</strong></td>
<td><strong>Wessia squarrosa</strong></td>
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<tr>
<td><strong>Valerianella rimosa</strong></td>
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