

**ENVIRONMENT AND COMMERCIAL SERVICES  
DIRECTORATE OF ECONOMIC GROWTH  
AND NEIGHBOURHOOD SERVICES**



**WILDFLOWER PLAN 2.0  
FEBRUARY 2022**

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Flowers on Lansdowne Road bunds, June 2020



## Executive Summary

1. This Wildflower Plan is one of a suite of policies to address Reading's declared climate emergency, and sits with the Climate Emergency Strategy and the Biodiversity Action Plan, as well as Reading Borough Council's Corporate Plan.
2. A Rewilding Project was initiated in 2020, which identified large verges where more species-rich long grass could be grown in corridors along the highway. An internal assessment was carried out, and feedback from residents proactively sought. Feedback was substantially positive, and the internal assessment concluded that the experiment had worked in most areas from the point of view of both maintenance and appearance.
3. In 2021 rewilding of larger verges continued.
4. In 12 parks, 2ha of land was added to the 40ha of conservation grassland already maintained for biodiversity. These were mainly on the edges of parks to create corridors for fauna. The change attracted no comment.
5. The Council had planned, on some sites, to change the maintenance regime from an annual cut-and-collect to a 3x aseason cut-and-collect in order to assess the effect on biodiversity and the vigour of both flowers and grass. In the event, problems with securing the right machinery meant that this did not happen, and the change will be initiated in 2022, if machinery can be secured.
6. A few sites were sown with locally sourced native perennial wildflowers and cut only at the end of the season to allow establishment in an attempt to increase diversity. No particular enhancement was observed.
7. The Council continued the public information and consultation started in 2020.
8. While most people say that they respond positively to a 'natural' look, the reality is that many respond better when nature has been enhanced. On high-profile sites around the town centre, meadow-like landscapes that include more colour for a longer period are being funded by the Business Improvement Districts. This will raise the profile of the rewilding initiatives and contribute to refocusing perceptions of Reading as a 'green/wild city'. The performance of the 'meadowscape' planting (autumn 2021) will be assessed in the next review.
9. Given the high demand on the Council's parks for recreational activities, it is not possible to continue to rewild larger and larger sections of public parks. It is therefore proposed that allotments sites be surveyed with the object of creating wildflower - or naturally rewilded - areas on the margins. There are obvious synergies between creating habitat for pollinators and growing fruit and vegetables. There will be resource implications attached to changing management regimes here.
10. Local involvement has extended beyond support for the Council's project to volunteers' arranging their own neighbourhood rewilding. The Climate Change Partnership is as much about education as implementation, and it is hoped that one result of the rewilding project will be involvement of more residents in the creation of local wild areas.

## 1. Introduction

Rewilding means restoring, reclaiming and protecting natural habitats and native species, and involves, amongst other things, the encouragement of wildflowers to grow on areas of previously mown grassland. The Council's Wildflower Plan guides the rewilding programme with the specific aim of dealing with two different aspects of the climate emergency: carbon sequestration and increasing biodiversity.

In 2018 the Council declared a climate emergency, and started working with partners in business, voluntary and education sectors to assess what changes should be made to attempt to address this. In early 2020 the Reading Climate Change Partnership consulted on the Reading Climate Emergency Strategy (RCES). Within the 'Nature' theme of the strategy is a wide-ranging requirement to improve the urban environment for flora and fauna.

At the same time, the Council published its Biodiversity Action Plan, which focuses on promoting natural solutions to climate challenges, setting out priorities for the protection and enhancement of biodiversity within Reading.

Independently, the Council has been receiving an increasing number of enquiries from residents about improvements for biodiversity across the Borough, the most frequent of which are for a change to highways verges cutting practices and tree planting. This needs to be considered together with the desire for a higher level of tidiness and quality of the public realm, and the Council is aware that leaving long grass on the highway will also attract complaints.

Grassland is important in combatting climate change. It is an effective store of carbon: globally soils contain about twice as much carbon as is present in the atmosphere and three times what is stored in vegetation. From the point of view of carbon sequestration, rewilding is a quicker win than tree planting. In trees, most carbon is stored in the canopy, and carbon sequestration increases as canopies expand. In grassland, most carbon is stored below ground. Here, the storage is stable, as carbon is released only when ground is disturbed (2012, Natural England). Recently published research found that the more diverse the grassland in terms of species variety, the greater the carbon storage (2019, *Nature Communications* 10).

As part of the Council's response to the climate change emergency, an experimental rewilding project commenced in spring 2020 on a number of larger highways verges, which were left un-cut during the growing season, allowing wildflower species to grow and seed. Site conditions were assessed in the autumn, together with an analysis of feedback from residents, and the first Wildflower Plan was prepared.

in its first year, the initiative did not apply to parks, although historically at least 40 ha of parkland has been managed as conservation grassland. The first Wildflower Plan proposed the inclusion of additional areas of parks in the rewilding project.

This second Plan assesses progress and proposes the extension of the project to include other areas of public land.

## 2. Ecology, grass and wildflowers

### 2.1 Rationale

Grass growth is governed by rainfall, soil fertility, sunlight and temperature. Higher amounts of all of these increases the rate of growth of grass. Vigorous grass competes out other species. The most effective way to encourage wildflowers to flourish in grass is to reduce soil fertility. This is done by repeatedly cutting grass and removing the cuttings. The grass draws nutrients out of the soil, so, if it is cut and removed, nutrients are taken away and not returned to the soil.

Over time, it should be possible to reduce the cutting regime from 2 or 3 cut-and-collect mowings each season to annual cuts, and the grass remains relatively short because growth is suppressed. There are also more wildflowers, which are, in fact, an incidental by-product of the process. More diverse plant species - grass and flowers - feed and provide cover for a wider range of insects. Habitat improvement is therefore a further by-product of several seasons of cut-and-collect mowing.

However, within 2m of a road grass may as well be mown regularly to keep it short and tidy, because research shows that pollinating insects tend not to use flowers in this belt (2019, *The Applied Ecologist*).

### 2.2 Process

On rewilded sites that are naturally species-rich or which have been managed as conservation grassland for a long period, an annual cut-and-collect mowing regime will be followed. Mowing will occur after seed has set and fallen. Where possible, mowings will be left on site to preserve insect eggs and larvae. Elsewhere:

- Timing: Cut early (Mar/Apr), mid-summer (Jul), and late (Sept/Oct) but this is a guide only; for example, if it looks horrible go and cut it.
- Area selection: Small areas have less wildlife value, so more extensive sites are better, but avoid areas with large amounts of street furniture where grass needs to be close-mown. In other words, where you can't do it, don't.
- Method: Cut and collect with ride-on machinery; it is too time-consuming to mow large areas by hand.
- Disposal: Deposit arisings in small heaps on local areas of the same land designation, for example, highway to highway (so as not to constitute waste). If this is not possible, then collect and recycle. The need to deposit arisings will reduce over years.
- Increasing species: encourage (or top up with) perennial, native. Aim for a succession of flowering times to maximise both visual and ecological value.

For the reasons explained above, the Council's rewilding programme includes both sites that are mown annually and some rewilded sites that are managed on a three-times-a-season cut-and-collect in order to assess the effect on biodiversity and the vigour of both flowers and grass.

### 3. Review of the project

#### 3.1 *Rewilding Project Phase 1*

A Rewilding Project was initiated under the new Biodiversity Action Plan, as one commitment in the RCES Nature theme. The project started by reviewing the mowing regime of highways verges to allow, where appropriate, more species-rich long grass in corridors along the highway.

The changes in the first year were an experiment, testing several things: (i) what different verges in different parts of Reading look like over the course of the flowering and seed-setting seasons; (ii) how residents respond to changes in the mowing regime; (iii) how to carry out practical maintenance issues like cutting and collecting, margin mowing, etc.; and (iv) whether there are ecological improvements coincident with changes to mowing patterns.

The changed regime involved not cutting many large and long verges, monitoring them for the quality and variety of grasses and other plants, and encouraging the public to spot and report insect life and any rare or unusual plant species.

Public information was provided by on-site signage as well as on the website. Feedback was encouraged, both supportive and dissatisfied, and this was monitored throughout the growing season.

To preserve a cared-for appearance, the rewilded verges were to have borders close mown: 2m minimum width adjacent to a road, and one mower deck width alongside footpaths, and an effort was made to increase the frequency of cutting of these mown borders and smaller verges so that the public realm looked tidy and cared for. Even on verges to be left uncut, traffic splays and other sight lines were cut, and on large verges, mown paths acting as firebreaks were maintained.

The trial was intended to inform future decisions about rewilding that took account of local preferences, botanical and biodiversity value, and landscape value. An assessment was planned, so that, for future years, it could be decided which verges to leave and which to resume mowing. Consideration would also be given to which verges may require enhancements in the form of adding to the reserve of wildflowers.

The assessment of the success or otherwise of the experiment had four aspects:

- Does it work from a management and maintenance point of view?
- What did the sites look like later in the season?
- How did each site work in terms of the variety of flora (and fauna) found?
- Did the project receive the approbation or criticism of residents?

Inspections were carried out during and at the end of the season. From a maintenance point of view, the conclusion was that the experiment had been successful. Very few sites - almost exclusively involving steep banks or tight access - preclude cut-and-collect mowing. A build-up of litter was reported on a few

sites, notably along major routes like the A33, Gillette Way and Portman Road, but these were litter picked before mowing.

In terms of appearance, all areas looked colourful in the spring, as expected. Later in the season, the flowering of species other than grass was much less evident, with grass flowers and a few tough species like *Achillea millefolium* and *Hypochaeris radicata* dominating. The exceptions were sites like Lansdowne Road, where the bunds were seeded and there was a large variety of flowering species.



Virginia Way, between Coronation Square and Florian Gardens, May 2020

The response of residents was overwhelmingly positive. Around 115 responses were received, mainly through the dedicated inbox, of which about 20% were critical and the remainder enthusiastically supportive. It was impossible not to conclude that residents are receptive of the project and wished to see it continued.

### **3.2 Rewilding Project Phase 2: Highways**

Arising from review of Phase 1 sites, it was proposed that

- Most rewilding sites should be retained as sites for biodiversity
- All of the banks should be returned to a regime of regular mowing, because of the difficulties associated with cut-and-collect mowing on a steep incline at the end of the season
- Mowing three times during the season on some sites would start

Several sites were set aside for seeding with additional flowers. In order to allow germination and establishment, these areas would be mown only once, at the end of the season, for two or three years after sowing, and then they should be

compared with the 3x-mowing unenhanced sites for the relative effectiveness for wildflower establishment.

Table 1 shows the revised list of Highways verges for rewilding, indicating which maintenance regime will apply: either mow three times each season, or overseed with native flowers and mow once at the end of the season.

**Table 1: Confirmed list of verges with reduced mowing regime for rewilding purposes, including those for ‘enhancement’ with additional flower seeds**

|   | No. of cuts | Enhancement |
|---|-------------|-------------|
| A33 both sides                            | 3           |             |
| Basingstoke Road, Gillette                | 3           |             |
| Basingstoke Road, Hartland Rd to Aldi     | 3           |             |
| Swallowfield Drive                        | 1           | ✓           |
| Hexham Road                               | 1           |             |
| Tilehurst Road/Liebenrood Road roundabout | 1           | ✓           |
| Circuit Lane/ Devil’s Dip                 | 3           |             |
| Dwyer Road/Burghfield Road                | 1           | ✓           |
| New Lane Hill                             | 1           | ✓           |
| Lansdowne Crescent                        | 1           |             |
| Bran Close                                | 1           |             |
| St Michael’s Road green                   | 1           | ✓           |
| St Michael’s Road/Walnut Way green        | 3           |             |
| Overdown Road opposite Overlanders End    | 3           |             |
| Overdown Road/Oxford Road roundabout      | 1           |             |
| Norcot Road roundabout                    | 3           |             |
| Meadow Park Academy/Church End Lane jn    | 3           |             |
| Portman Road (behind kneerail)            | 1           | ✓           |
| Barnwood Close                            | 1           | ✓           |
| Rotherfield Way (large areas)             | 1           | ✓           |
| Southdown Road adj. Marshland Square      | 3           |             |
| Marshland Square roundabout               | 1           | ✓           |
| Peppard Road, Buckingham Drive            | 1           | ✓           |
| Emmer Green Pond                          | 1           | ✓           |
| Stuart Close                              | 1           | ✓           |

In the event, problems with securing the right machinery meant that the system of mowing three times during the season did not happen. This will be deferred to 2022, if machinery can be secured. All sites were therefore mown and arisings collected at the end of the season only.

Some sites were overseeded with a native perennial mix, but, without a survey, it is not possible to assess whether this increased diversity. There was no appreciable visual difference arising from sowing seed.

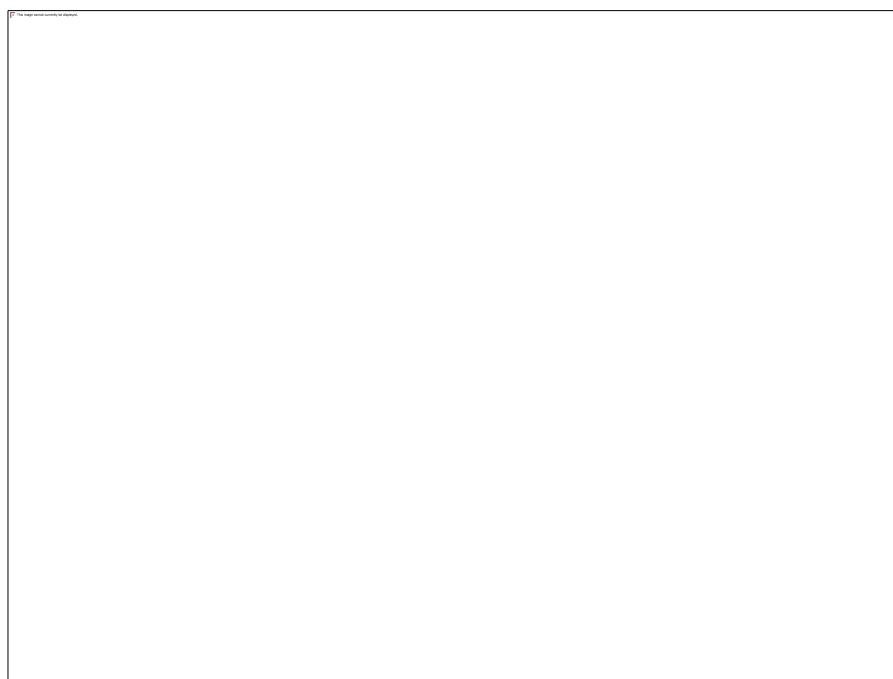


### 3.3 Rewilding Project Phase 2: Parks

The Council has historically managed over 40 hectares of parkland for biodiversity. These locations are listed in Table 2.

Table 2: Sites of Conservation Grass in Reading Borough

|                            | Area in hectares |
|----------------------------|------------------|
| Arthur Newbery Park        | 3.9              |
| Balmore Walk               | 1.7              |
| Bugs Bottom                | 9.2              |
| Clayfield Copse            | 2.8              |
| Coley Park Allotments      | 0.8              |
| Comparts Plantation        | 1.2              |
| Deans Farm                 | 1.4              |
| Fobney Island              | 1.5              |
| Hills Meadow               | 2.1              |
| Mapledurham Playing Fields | 0.5              |
| Mcllroy Park               | 4.2              |
| Prospect Park              | 2.8              |
| Prospect Park RSME         | 0.8              |
| Rivermead (until August)   | 4.4              |
| Southcote Linear Park      | 0.9              |
| Waterloo Meadows           | 2.6              |
|                            | 41.1 ha          |



Bugs Bottom, May 2021

As part of the Rewilding Project, more areas of unmown grass for reasons of improving biodiversity were introduced in public parks, particularly on the margins, to provide more cover for wildlife. The following criteria were applied:

- Avoid areas that are used for recreation: sport, dog-walking, play, etc.

- Create a balance, so that a variety of human experience is created within larger sites and across the Borough
- Select areas that link up wild zones to create wildlife corridors
- Avoid areas that are likely to become litter traps

Table 3 lists those parks in which there was land suitable for the rewilding trial that meets all criteria below.

**Table 3: Proposed new rewilding areas in parks**

| Park                        | Location  | Area    |
|-----------------------------|---|---------|
| Cintra Park                 | Zone 'outside' the perimeter path                     | 0.2 ha  |
| Coley Recreation Ground     | Some of the bank to the west of the park              | 0.15 ha |
| Edenham Crescent            | Strip along the railway line                          | 0.05 ha |
| Emmer Green Rec. Ground     | Area adjacent to the pavilion                         | 0.03 ha |
| Kings Meadow                | Southern perimeter (Napier Rd/Luscinia View)          | 0.2 ha  |
| Kings Road Gardens          | Strip on top of the bank                              | 0.01 ha |
| Milestone Way               | Selectively   | 0.25 ha |
| Palmer Park                 | Perimeter 'outside' the avenue SE corner to play area | 0.22 ha |
| Prospect Park               | Bank sloping towards Tilehurst Road                   | 0.1 ha  |
| Shinfield Recreation Ground | Southern half of the site                             | 0.3 ha  |
| South Whitley Rec. Ground   | Selectively   | 0.25 ha |
| Whitley Wood Rec. Ground    | Old tennis court area                                 | 0.24    |
|                             |   | 2.0 ha  |

These areas will add 5% to the area currently mown as conservation grass to allow the Council to test the response.

It was proposed that the Council carry out an experiment in 2021 in parks along the same lines as the 2020 trial on highway verges. As with the 2020 rewilding project, requests for feedback from parks users was sought and monitored.

In fact, the changes in parks attracted virtually no comment. As a result, these sites will now remain as permanent conservation grassland.

#### **4. Next steps**

##### **4.1 Additional land for rewilding**

The Council has set a modest target for adding to the area set aside for rewilding. With public parkland intensively used for a range of other, primarily recreational, purposes, it is not possible to set aside large areas of parks for conservation grass.

It is therefore proposed that allotments sites be surveyed with the object of creating wildflower - or naturally rewilded - areas on the margins of allotments sites. There are obvious synergies between creating habitat for pollinators and growing fruit and vegetables. There will, however, be a resource implication because of the requirement to mow at least annually and remove arisings. For this reason, progress can be made only as resources become available or as tenants can be persuaded to carry out the annual cutting.

## **4.2 Publicity**

The public information strategy is key. As with the highways verges project, the intentions and benefits need to be made clear.

- The proposed changes and the reasons for them will continue to be posted on the Council website.
- Where appropriate, temporary, laminated signs will be erected on new areas to explain what the Council is trying to achieve.
- Regular press releases will be drafted.
- Posts will be made on social media.
- As before, each of these will include an invitation to monitor species and report findings to the Council via a dedicated email account.

## **5. Wildflowers for beautification: town centre locations**

### **5.1 *Classification and provenance of wildflowers***

When people imagine wildflower meadows, they usually think of native annuals - poppies, cornflowers, corn cockle and corn marigold - or biennials. like foxgloves and forget-me-nots. These all have colourful flowers. The entire life cycle of an annual plant from germination to seed-setting occurs in one growing season. For seeds to germinate each year, they typically require disturbed soil, so annual cultivation and topping up of seed is needed, with significant maintenance costs.

If an area is left uncultivated, other plants seed themselves in, outcompeting the annuals. These plants tend to persist over succeeding years, increasing their colonies by setting seed. Examples of perennial plants are bugle, campion, ragged robin, primroses, campanula and ox-eye daisies. With some exceptions, they tend to be less showy. To ensure diversity of perennial wildflowers, it is necessary to start by preparing the ground and sowing seed or laying wildflower turf.

The colourful season for native wildflowers is relatively short. Flowering is followed by a 'brown season', when plants are setting seed. The way to prolong the flowering period beyond spring and early summer is to introduce non-native varieties. There are sharp differences of opinion about exotic plants. However, academic research is showing that, with some exceptions, insects require pollen and nectar and will collect from non-native sources where these are available.

### **5.2 *Wildflowers and public perception***

While most people say that they respond positively to a 'natural' look, location is important in influencing the response. Where 'wildness' is expected, people will tolerate an ecologically authentic meadow that only looks good for a few weeks followed by yellowing grass and brown seedheads.

In more urban settings, the reality is that many respond better when nature has been enhanced. Long-season interest, colour and good structure are vital if residents are going to embrace rewilding as part of the civic environment.

Particularly on high-profile sites, it is desirable to consider naturalistic but idealised meadow-like landscapes that establish relatively rapidly, thrive in normal conditions, but provide pleasure for a long period. This might involve excluding most grasses and introducing some non-natives.

On town centre roadsides, mixes need to be able to withstand salt pollution and dry conditions. Research shows that pollinating insects tend not to use flowers within 2m of a road, which further suggests that appearance on the roadside is more important than replicating 'natural' meadows.

### **5.3 *Proposal for Reading and neighbourhood centres***

The plan at the end of the document suggests areas of land in public ownership in and around Reading town centre that could be planted with enhanced wildflowers. Clearly, there is land in private ownership that might be considered by business partners for complementary flower schemes.

Other locations that could be treated in the same way are the main shopping areas in Tilehurst, Caversham and Whitley, where there is land for wildflower planting, as well as corridors into Reading, like the A33, Oxford Road, London Road and Henley Road.

#### **5.3.1 *IDR splitter beds - perennials***

In version 1 of the Wildflower Plan, it was proposed that long-flowering mixes of native and exotic, drought-tolerant, perennial wild-looking flowers were planted ringing the town centre.

In autumn 2021, two different turf mixes of 'meadow' plants were laid in the planters around the town centre, outside Reading Station and in the planters attached to 'Welcome to Reading' signs. These were funded by the Business Improvement Districts, and are intended to demonstrate in a highly visible way Reading's commitment to implementing the action plans attached to the Reading Climate Change Partnership Strategy.

The performance of this wildflower turf will be assessed during the growing and flowering season of 2022.

#### **5.3.2 *Roundabouts - annuals***

Given the high impact of annuals, it would be worth sowing at least one roundabout with a mix that includes a high proportion of annuals early on, like the one in Rotherham pictured below. This is a more expensive method of providing wildflowers, because of the ongoing establishment and maintenance requirements, but it should at least be considered for its significant public relations value.



### **5.3.3 Civic Offices**

Consideration should be given to planting wildflowers as exemplar gardens around the Civic Offices both to improve biodiversity in the town centre and to demonstrate to residents what is achievable even in a relatively small space. To do this, it will be necessary to remove some of the existing planting around the Civic Offices, starting with the southeast corner adjacent to the front entrance. Over time, it may be possible to extend this.

### **5.3.5 Implementation**

To implement a new project will take up to four weeks, depending on how much clearance needs to be done. Work should be done in March or April, or in September, although is obviously dependent on weather conditions.

Establishment requirements are:

- Clearance, which may involve removal of plants, roots and any rich top soil
- Raking and levelling
- Either seeding or the laying of turf

Maintenance requirements are:

- Irrigation until established
- Mowing as required (cut and collect)
- Topping up of seed, especially annuals
- Weeding

The scheme is partially self-perpetuating as the seed that is released each year is allowed to return to the soil. This reduces the need to reseed in the succeeding years, allowing the site to increase in terms of numbers and biodiversity - although no scheme entirely eliminates subsequent intervention to ensure persistence of flowering varieties.

It is very difficult to cost a general rather than a specific proposal. As a rule of thumb, we suggest £5,000 for the clearance and planting of a roundabout.

## **5.4 Benefits**

The main benefits of rewilding are biodiversity and carbon storage. Idealised flower planting in the town centre makes a smaller contribution to these objectives, but has other value:

- Visual amenity: improves the appearance of Reading town centre.
- Better air quality: reduces greenhouse gases both by reduced grass-cutting requirements and by absorbing CO<sub>2</sub> emissions from vehicles from the air.
- Health benefits: improves physical health through better air quality.
- Storm water: controls the run off of water from storms and heavy rain, reducing the rate of water released on the road systems.
- Education: demonstrates what is possible in urban environments.

## 6. Encouraging private rewilding

### 6.1 Introduction

The Climate Change Partnership is as much about education as implementation. The Council's aspiration to inspire residents to rewild even small patches of private land as well as to encourage appreciation for what is being done on public land has been evident in the media campaign that has accompanied the Rewilding Project: signage, website information, social media posts and podcasts.

The overwhelmingly positive response that has been received to the initiative suggests that the Council's commitment to rewilding is an effective partnership with its residents.

### 6.2 Local initiatives

At the same time, local involvement has extended beyond support for the Council's project to volunteers' arranging their own neighbourhood rewilding. Here are two examples:

A group of volunteers has started the **Newtown Community Garden** on open land owned by Housing between Cumberland and Amity Roads. The purpose is to create and maintain a sustainable rewilding area for locals to get involved in and enjoy. The group canvassed local residents and received overwhelming support for their plans, which include planting bulbs, wildflowers and fruiting shrubs; rainwater harvesting; keeping the area free of litter; installing and maintaining seating and a noticeboard; and regular low-key events related to art and gardening. A key focus is to invite people living alone to participate or simply to sit on the bench with a cup of tea.

At **Waterloo Meadows**, the Friends of Waterloo Meadows and CROW (Conserve Reading on Wednesdays) worked together to extend the wildflower scrapes. Using funding donated by Sustrans for seed, volunteers have created several large areas of wildflowers, most near to the main path, going through the Meadows. The results in the middle of summer were spectacular.



Waterloo Meadows, summer 2021