

# West Crescent Meadow



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## 1.0 Summary

With the climate and ecological emergencies being declared by towns and cities across the country, it is clear that the 'act locally think globally' motto is widely being practiced, with local authorities such as South Somerset District Council (SSDC) creating the great Parish Tree Giveaway among other green initiatives.

Whilst Ilminster Town Council is at its capacity for planting trees on its open spaces, there are other potential options to make a significant change in the fight against climate change and to show that ITC is not only taking the climate emergency seriously but are active.

Wildflower meadows with diverse wild plants and fungi at their core are not just essential for carbon storage, they also slow floodwaters, buffer extreme weather, boost pollinators and stop soil erosion – all essential ingredients to tackling and adapting to climate change

It's reported that a staggering 97% of wildflower meadows have been eradicated since the 1940 (Plant life) due to change in land use.

This report explores changing the management of the West Crescent area and turning it into a wildflower meadow.

### The Vision

West Crescent is a green open space with a play park and Jubilee Garden. The vision is to change current management practices to create a wildflower meadow to encourage wildflowers and improve diversity on council owned land from where the park starts back towards the rec (yellow) and the Jubilee Garden will continue to be mowed at the regular height of 2.5cm on a weekly basis

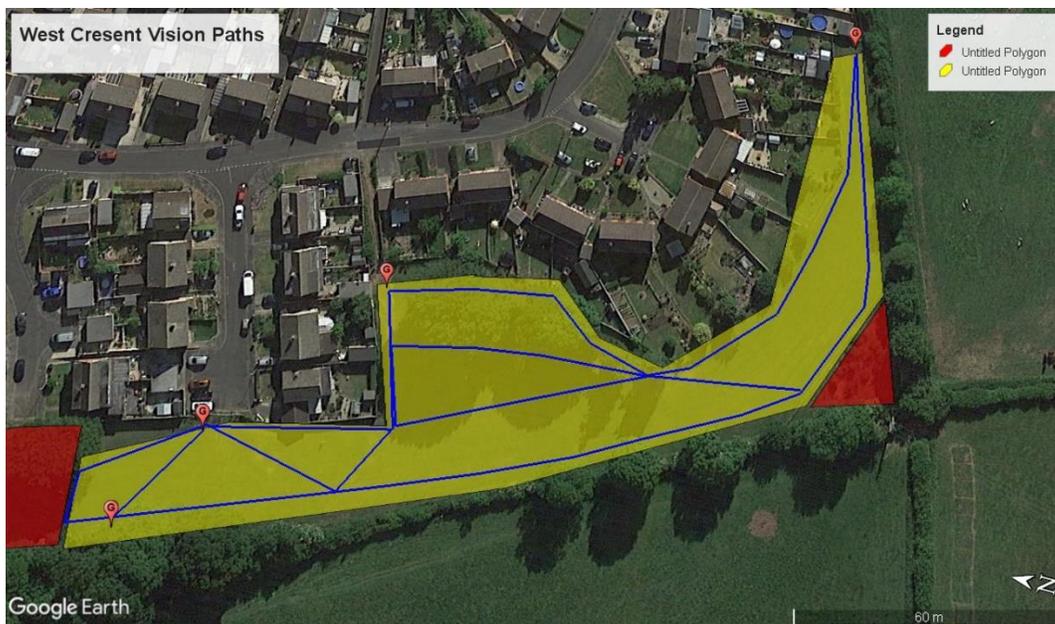
The rest will be cut as described below in initial and ongoing management changes to encourage wildflowers and other species whilst helping the council to meet its 'one planet' principles and ecological responsibilities.



## 2.0 Initial Management Changes

### 2.1 Cutting Walkways.

Cutting of paths (blue) at approx. 3-5 meters (wider during COVID-19) to allow easy access throughout the meadow like the path shown in the image. These will be checked and cut regularly to approximately 2.5cm and allow ease of access throughout the meadow area connecting all entrances and walkways. Being relatively flat, walkers will be able to walk through the meadow should they wish to do so, but the paths will be a more formal options for those without their wellies.



### 2.2 Initial Sowing

Before we consider sowing seeds or plug planting, it is essential to test the soil to ensure nutrient levels will be suitable for such species. This can be done using a basic soil sampling kit in-house taking several samples spread across the target area.

Sow initial plugs or overseed sow during April/May depending on soil conditions. On lighter soils, autumn-sown seeds generally germinate and establish quickly, although some will not come up until the following spring.

### 2.3 Initial Cutting

To encourage perennial flowers and grasses to make good root development, it is important to mow the meadow in the first year after sowing. We will cut to a height of 5cm (2in), approximately twice the

height of what we currently cut. The first cut will take place roughly after about six-to-eight weeks of growth and will be repeated every two months throughout the first summer.

### **3.0 Ongoing Maintenance**

After the initial cutting regime in year one, the cutting can be reduced to three cuts and possibly even less depending on what species develop and which ones we choose to encourage further.

#### **3.1 Spring Cut**

This is useful for meadows where grass growth is very lush. Cut back to height of 7.5cm (3in) only and complete this cut no later than the end of April.

#### **3.2 Main Summer Cut**

This is also referred to as the 'hay cut' as it removes the bulk of the material, allowing it to be collected and composted. This cut is done between late June and the end of August; the earlier cutting favors spring flowers such as cowslips, fritillary, lady's smock, selfheal and bugle; the later cutting favors summer flowers such as knapweed, devil's bit scabious and lady's bedstraw.

##### **3.2.1 Removing the Cutting**

We will need to remove any cutting from the summer cut to prevent the rapid growth of weed species, the cut should be allowed to sit in situ for a few days to allow seeds to set before being collected and removed. This could be added to the conservation volunteer's schedule

#### **3.3 Autumn Cut**

This cut is particularly useful for fertile sites. One or two cuts between the end of August and late November removes surplus growth and helps keep grasses at bay to allow the wildflowers to persist. Following the last cut of the season, all meadows can be kept mown to keep the grass short and neat through the winter is desired. Any cut that produces substantial clippings should have the clippings removed and composted.

## **Projects and One Planet Principles**

### **4.0 Benefits of the Meadow**

#### **4.1 Visual Appeal**

While close cut turf has a certain visual appeal, meadows offer much more of a sensory experience, with the colors of the wildflowers, sounds of the birds and the insects. Although the change can at first seem a shock, once developed it enhances the experience of those who may pass through.

#### **4.2 Water**

##### **4.2.1 Water Absorption**

Meadows absorb water more effectively than lawns at absorbing stormwater and preventing flooding. Lawns are prone to surface run off due to the compacted soils and shallow roots. In contrast, the looser soil and extensive root systems of a meadow species increase rainwater infiltration.

#### 4.2.2 Pollution

Meadows improve water quality by absorbing intercepting pollutants that are not absorbed by turf. This prevents fertilizers and pesticides hitting the water systems such as the small stream at the rear of West Crescent and ultimately the canal.

#### 4.3 Wildlife

Wildlife species will benefit tenfold by the change in management. When the area is cut less often, the diversity of species increases. As the number of plant species increase, the meadow will then attract other invertebrates which in turn will attract insectivores.

##### 4.3.1 Birds

Birds that feed on the insects, creating an accessible spot for bird watchers who may have limited mobility and are unable to make it up to the hill or Cleaves Close.

##### 4.3.2 Pollinators

Another benefit of allowing turf to succeed to meadow is the increase in pollinator species to the area. Pollination is critical to fruit and seed production and is often provided by insects on the hunt for nectar, pollen, or other floral rewards. Currently, habitat loss and pesticide use threaten these bees, butterflies, and other beneficial pollinators. This is especially troubling given that pollinators are essential to the production of 75% of the staple crop plants that feed humans and for 90% of all flowering plants in the world.

Beneficial pollinators have very basic habitat requirements: flowers to forage, host plants on which to lay their eggs, and an environment free of pesticides. Wildflower meadows, grasslands, and other areas rich in native plants offer these essentials. Not only do lawns lack these essentials—the fertilizers and pesticides commonly used to maintain them can harm pollinators and other wildlife.

#### 4.4 Education

#### 4.5 One Planet Principles

Through this project, we will be hitting several of the one planet principles as highlighted in Table 1. It also shows as a landowner and council we are ambitious and forward-thinking, and who are taking our ecological and climate responsibilities seriously and setting the example for other local councils to follow.

Principle	Description	How the Project Relates
Health and Happiness	Encouraging Active, social, meaningful live to promote good health and welling	<ul style="list-style-type: none"><li>• Mind UK report that Spending time in nature has been found to help with mental health problems including anxiety and depression</li></ul>
Culture and Community	Nurturing Local Identity and Heritage, empowering Communities and Promoting a culture of sustainable living	<ul style="list-style-type: none"><li>• The project will show we are showing we a willing to lead by example</li></ul>

		<ul style="list-style-type: none"> <li>• That we are willing to challenge traditional management expectations to promote and actively practice a culture of sustainable living</li> </ul>
Land and Nature	Protecting and restoring land for the benefit of people and wildlife	<ul style="list-style-type: none"> <li>• The project will help provide habitat for key pollinators and other wildlife</li> <li>• Provide a key educational resource for the community and schools</li> <li>• Increase local biodiversity</li> </ul>
Sustainable water	Using water efferently protecting local water resources and reducing flooding and draught	<ul style="list-style-type: none"> <li>• It will hold onto a lot of the storm and rainwater far better than turfed grass</li> <li>• Indirectly help protect streams adjacent to our land</li> <li>• Help reduce erosion and run off into the canal</li> </ul>

**5.0 Potential concerns**

There are a few potential concerns that we will need to consider, however these should not take away from the benefits of projects and can be resolved through careful planning and management

**Initial reaction from the public**

Public reaction to change can be extreme. However as a council, we are committed to the one planet principles and can use this to broadcast the change for the positive See section and highlight the change which is to help ecology and climate change, moving away from traditional management expectation and showing as a council we are forward thinking and a champion of responsible change.

**Dog fouling**

One of the concerns is dog fouling. However, signs on the entrances to West Crescent can be erected and in comparison to Cleaves Close, which also has longer grass than other areas, the poo problem is not scientifically different to other areas of the rec. The additional length in grass will not be that much more difficult to locate the poo.

## The Fair/Circus

The fair and circus use the area suggested to camp in their caravans when in Ilminster, usually coming in May, July and October which would tie in well with the cutting regime. This means that any excessive growth will be cut and ready for time of arrival and will be no longer than 7.5 cm, this also helps with the impact the fair has on the site when digging up the ground as the root systems are better formed and provide a more secure surface.

## 6.0 Interpreting the Change to the Public

Initially there is likely to be some concern that the area is being neglected. It is therefore important to interpret what is happening to the public from the very start. This can be done from the get-go using already available platforms such as Facebook and signage on the ground.

### 6.1 Facebook

We can use Facebook to get the word out about our intentions and how we plan to progress. It is also a great opportunity to show that we are working with local stakeholders such as Green Ilminster to tackle climate change and promote the one planet principles.

We will find Facebook particularly useful in.

- Initial acknowledgment of the increase in length of the grass on Facebook accompanied with photographs and an outline of future management ambitions
- Ongoing communication via 'a minute in nature'
- Fixed point photography so the public can witness the change
- Species survey results to spark an interest in what is growing
- How this ties in to one planet principles

### 6.2 Signage

Signage explaining what we are doing, and its benefits can be put out onsite. Once the meadow has fully developed, a more permanent interpretation board could be placed on site showing the change and how it was achieved.

## Work Outline

Task	When	Year	By whom
Plug or Overseed wildflower seed	April, May	Y1	GM, GI

Cut to 5cm (2in) every 6 weeks through summer	April May June	Y1	GM
Survey	June/July	Ongoing	CV, GM
Cut to 7.5cm	March/April	Ongoing	GM
Cut to 7.5 cm	June. July, August	Ongoing	GM
Remove any arising for compost	June. July, August	Ongoing	GM, GI, CV
Cut to 5 cm	October	Ongoing	GM

**7.0 Feasibility (Soil Test)**

The grounds Team carried out basic soil testing using a basic kit. The results can be seen in table 1 below which highlights the results for the four samples taken from the project area. It should be noted, the kit used was very basic, so there may be a margin of error, especially regarding nitrogen levels which are notoriously difficult to measure.

The four locations of where the samples were taken can be seen on the map bellow.



## 7.0 Results

Table 1 Results from soiling testing

	1	2	3	4
PH	5	5	5	5
NO3	Low	Low	Low	Low
P2O5	Trace	Medium	Low	Low
K2)	Trace	Low	Low	Low

## 7.1 Phosphorus

The Trace to Low range is perfect for creation of the wildflower grasslands. One sample showed Medium which is located close to where the fair stay, so this should not be too much of an issue as it may result in this area being grassier, but as the flowers self-seed and management continues this may naturally correct itself.

Table 2 Phosphorus index (adapted from magnificent meadows)

Status	Interpretation
Low	This range is perfect for restoration and creation of wildflower grasslands.
Medium	Wildflowers may struggle to compete against grasses and plants that like higher levels of soil nutrients. In soils with phosphorous levels above 20mg/kg and the plants used should be considered in terms of their ability to cope in high nutrient environments.
High	Reducing the level of phosphorous is recommended if levels are high and this may not be a suitable project for this location

## 7.2 Potassium Levels

Again, the results from our soil test suggest that the range is perfect for creation of the wildflower meadow and we should not face too much of an issue on this front.

Table 3 Potassium levels interpretation (Adapted from magnificent meadows)

Status	Interpretation
Very Low	This level of potassium is very low resulting in low herbage yields. Replacement of this essential nutrient may be required in future management.
Low	This range is perfect for restoration and creation of wildflower grasslands.
Medium	Wildflowers may struggle to compete with

	more competitive grasses and weeds in soils with higher potassium level.
High	Works require to lower levels not suitable for project location

**7.3 Nitrogen**

Nitrogen is very mobile. It will be leached by water and taken up by plants. It can be very difficult to get an accurate measure of nitrogen. Nitrogen can be indicative of how successful restoration or recreation will be along with the level of extractable phosphorous. For example, there may be weed issues on sites with low nitrogen and high phosphorous, which can result in grassland dominated by white clover. As clover fixes atmospheric nitrogen, it can aid the establishment of competitive grasses and perennial weeds such as docks, thistles, and nettles. Sites with high nitrogen and low phosphorous are the most suitable for wildflower grassland restoration and creation. However, considering the difficulties in accurately measuring nitrogen, sites with low phosphorous should be selected even when nitrogen is also low.

**7.4 Conclusion**

All in all, the soil testing suggests that the site would be a suitable area to carry out wildflower creation with limited to no issues regarding nutrient levels.

**8.0 Costings**

Seed cost 10kg £1,140.