

## Appendix 4      General Amenity Grassland Enhancement Guidance

### Introduction

This guidance is intended to inform land managers on how to enhance a generic amenity grassland area to improve its overall biodiversity value for invertebrates, birds, fungi and mammals. This guidance is not site specific and therefore some guidance is firstly provided on how to identify suitable grassland areas for enhancement to ensure that existing wildflower rich grasslands are not altered. The guidance then provides management options for how suitable grasslands can be enhanced and maintained for biodiversity.

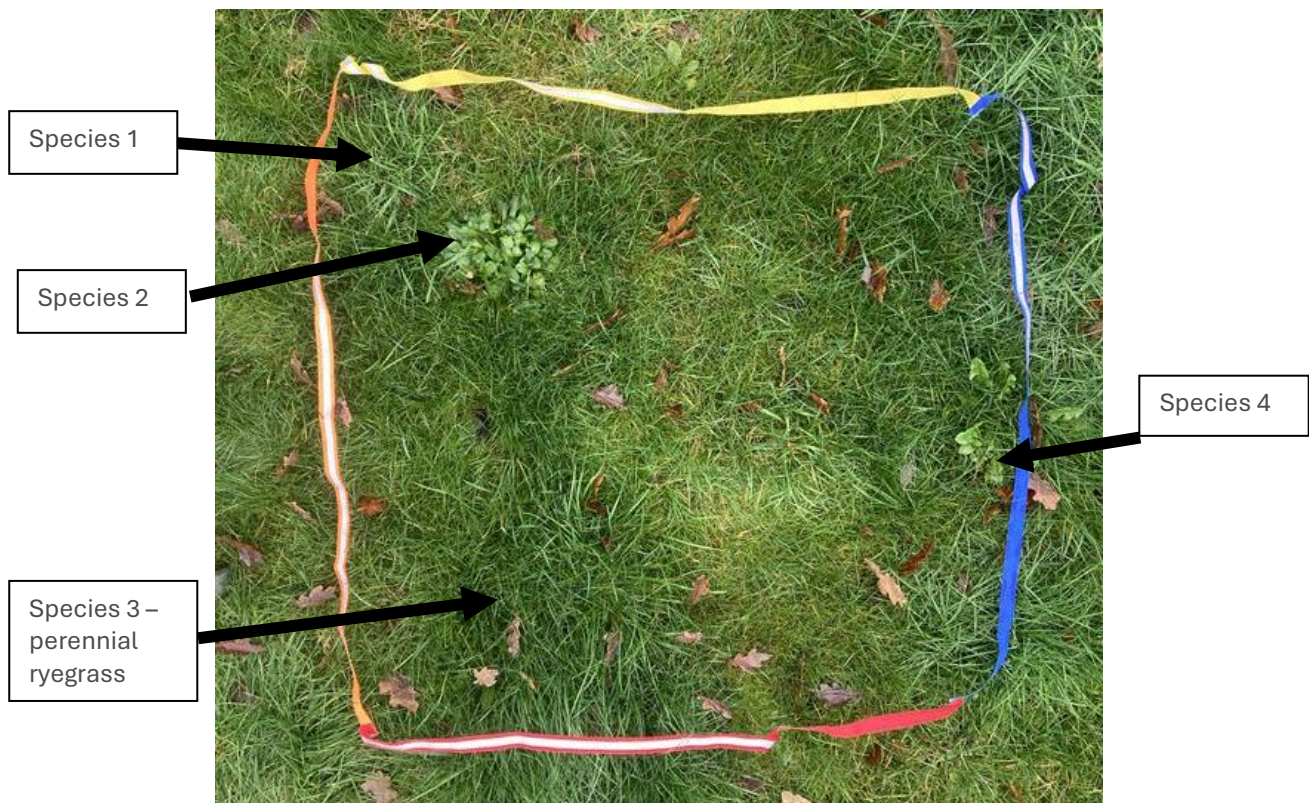
### Identifying Amenity Grassland

The typical characteristics of amenity grassland are as follows:

- Grassland is often mown and kept uniformly short;
- The grassland overall looks a vibrant uniform shiny green (due to dominance by perennial ryegrass *Lolium perenne*); and
- The grassland, *on average*, has less than six vascular (i.e. grasses and wildflowers, excluding mosses, lichens and liverworts) plant species per square metre – see example in Figure A below. Please note: it is recommended that at least five 1 metre x 1 metre randomly spaced quadrats are assessed during May-August (the flowering season) to determine the average number of vascular plant species per square metre.

Typical amenity grassland sites which fulfill the above criteria are likely to be dominated by perennial ryegrass with a few common wildflowers (for example daisy, dandelion, ribwort plantain and clover species). Such grasslands have a relatively low biodiversity value due to the abundance of one or two common grass species and low abundance and diversity of native wildflowers.

Figure A. Typical 1m x 1m Quadrat in an Amenity Grassland Showing Four Vascular Plant Species



### Management for Biodiversity

**Reduce Mowing Frequency** – Leaving grass long allows wildflowers to grow and set seed, helping them to spread in abundance. The flowers provide essential nectar and pollen for invertebrates and the grass and wildflower seed can also provide food for small mammals and birds. Longer grass also provides shelter for invertebrates and many can overwinter as eggs, pupae or larvae within the grass (note: you can often hear the difference in the biodiversity of long grass relative to short grass by the hum of insects such as crickets!). The microclimate of longer grass also helps to retain more warmth and moisture for invertebrates such as ants and worms.

Depending on the use of your site, it may be possible to leave all of the grass long and mow walking paths through it. Alternatively, in more heavily used sites, it may be more appropriate to leave wavy edges and sections long that are less used by people.

Two key grass cuts should be undertaken each year. The first is in February/early March whereby the grass is cut short (50mm height approximately) to ensure emerging wildflowers can access sufficient light. The second cut is undertaken in late August/early September once wildflowers have set seed. This second cut removes nutrients that have accumulated in the grasses and helps to reduce the nutrients within the soil thereby discouraging grass growth and encouraging the nutrient-poor conditions favoured by many wildflowers.

Following the second cut, the grassland can be regularly mown throughout the winter to keep the sward short and further remove nutrients from the grassland. It is beneficial to leave some random sections of the grassland long over the winter each year for shelter for overwintering invertebrates.

An example of long grass with mown pathways is shown below in Figure B.

**Figure B. Carrowbreck House Grassland**



**Remove Grass Clippings** – After all but one of the cuts advised above, grass clippings should be removed and not left to rot down in situ. This can be achieved by using a ‘cut and collect’ mower or by raking off arisings to dispose of offsite or in a designated compost heap on the Site. The removal of cuttings is crucial for removing nutrients from the soil and reducing the dominance of grasses.

After the second cut in late August/early September, arisings should be left in situ for 1-7 days to allow wildflower seeds to fall into the grassland. Arisings can then be raked off and disposed of offsite or in a designated compost heap (note: compost heaps provide fantastic shelter for small mammals and grass snakes).

**Create Edges** – the more edges you can create in your grassland the better as this creates a mosaic of microclimates for invertebrates and mammals. For example, if leaving sections of grass long, try creating wavy edges to the long grass section. This undulation creates sheltered crescents and more exposed crescents favoured by different species.

**Prioritise Leaving Grass Long Near Hedgerows, Trees and Woodland** – when choosing where to leave grass long, try to prioritise at least 1m wide strips next to hedgerows, trees and woodland. By doing so, you can create a more textured ‘edge’ habitat whereby vertical stratification of the habitat grades up towards to the height of the hedgerow creating greater microclimate variability. Long grass in these areas can also help to provide cover for a variety of small mammals such as hedgehogs that walk along these linear features in order to move through the landscape. Longer grass around individual trees can also help to protect these trees from mowing damage.

Note: sometimes the areas next to hedgerows, trees and woodland can be heavily shaded and therefore suboptimal for wildflowers. It is therefore advised that long grass areas comprise a range of both sunny and semi-shaded habitats.

**Avoid Herbicides, Fertiliser, Pesticides and Commercial Grass Seed** – when managing a grassland for biodiversity, the application of herbicides, fertilizer, pesticides and commercial grass-only seed should be avoided at all times. If a prolific ‘weed’ species starts to spread (such as thistles, stinging nettles) these should be removed by hand pulling.

**Create Bare Ground** – the creation of bare ground within a grassland helps to improve botanical diversity as bare patches become colonised by ‘pioneer’ plant species which require bare ground for seed germination. Create bare ground in random patches across the grassland through scarification equating to 1-5% the area of the grassland. This process can be undertaken each year to create fresh bare ground opportunities for pioneering plants.

**Oversowing with Wildflower Seed/Green Hay or Native Plug Planting** – in some instances it may be appropriate to scarify the grassland and oversow with native UK-sourced wildflower seed (for example: Emorsgate Seeds) or locally sourced green hay. This may be appropriate where all three of the aforementioned key characteristics of amenity grassland are present and there are few trees or shrubs on the Site whose roots may be harmed by the scarification process. Seed is usually sown in wet weather periods in the autumn or spring following scarification of the grassland to create 50% bare ground. Seed is then broadcast by hand and gently pressed into the bare ground by foot to ensure good seed/soil contact. Alternatively, native perennial wildflowers suitable for the sunlight conditions can be bought as plug plants and planted individually within the grassland without the need for prior scarification.

Note: with any purchase of wildflower seed or plug plants, it is crucial that the plants are native (and not a cultivar/garden variety), sourced as locally as possible within the UK and appropriate for the prevailing soil conditions at the site. It is advised that prior to considering the addition of seed/hay/plug plants that a practice of long grass management is adopted for 5-10 years first to see what native wildflowers naturally grow as this can deliver a more locally appropriate floral diversity without the addition of generic commercial wildflower mixes.