Grassland (Low Distinctiveness) – g4 Modified grassland

Creation, Enhancement and Management Summary (GL-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 5. Low Grassland.

Target Habitat						
Condition Assessment Criteria		**Targeted**	**Relevant Parcels**	**Creation Approach**	**Enhancement Approach**	**Management Approach**
A	There are 6-8 vascular plant species per m2 present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Yes	2	**Site preparation** It is assumed that the soil nutrient levels will be medium - high. If the grassland contains a high proportion of forbs such as docks, nettle, thistle, the nutrient level can be reduced over several years by continuing to crop the land without additional nutrients, or regularly cutting and removing the herbage. Nutrients reduce quickest on sandy and shallow soils and slowest on deep loamy soils and peat. An alternative is to use soil inversion, where soil is deep ploughed and inverted to bury the fertile topsoil and bring the subsoil to the surface. **Seed** Seeding is the most common method used to create grasslands. Try to obtain seed harvested from local meadows or use green hay from nearby grassland sites. A wide variety of seed mixtures can be purchased, ranging from those of agricultural cultivars, specialist seed providers to mixtures harvested from existing semi-natural local habitats. If purchasing seed, select one which is suitable for the site's soil type and of suitable provenance, i.e. UK native-origin. **Applying seed** A fine, firm and level seed bed should be created. Weed burdens will need to be reduced through repeated soil cultivations and/or herbicide applications. Ensure the species introduced are appropriate to the site, especially its soil pH and moisture levels. Broadcast seed onto the surface of a prepared seedbed in August-October. Seeds should be trampled or rolled in. Consider introducing seeds in phases and/or hay strewing. Some plant species are much easier to establish than others. If sowing a mixed grass and wildflower mix (generally 80:20 mix) use seed at rate of 10-20kg/ha.	**Hay strewing** Beyond the grassland establishment, if you wanted to enhance the botanical diversity of species-poor grassland consider hay strewing. This entails taking freshly cut 'green hay' from a local donor site and, on the same day, strewing (spreading) it onto the site. It is a cost-effective method and ensures that the received seeds are of local provenance. Seek technical advice to ensure the site's soil is suitable, through testing phosphorus (P) levels. For example, a P Index of 1 (low) is deemed acceptable. prepare the site by spraying off weeds using herbicide and create a fine, firm and level seedbed, avoiding looseness at depth. Spread the hay at reasonable depth (up to 10cm).Once strewn, in the first year the vegetation growth should be cut up to 4 times and then the grassland should be treated as a traditional hay meadow thereafter. **Regeneration using the natural seed bank** Grassland regeneration using the seed bank involves utilizing the dormant seeds present in the soil to restore vegetation in degraded or disturbed areas. The seed bank acts as a reservoir of plant diversity, and understanding its dynamics is crucial for effective grassland restoration. This approach can be particularly useful in areas where the above-ground vegetation has been lost or damaged, allowing for natural recovery processes to be supported. Techniques to increase species diversity include shallow cultivation, direct drilling or introducing seed mixtures, alongside managing grazing or other disturbances. These techniques are used in combination with the following: **Grazing** - is crucial for maintaining grassland structure and promoting seed dispersal and establishment. Mowing - regular mowing, particularly after seed set, can help control more competitive grasses and encourage the growth of wildflowers.	**Establishment** Newly created grasslands will need intensive management over the first few years. In the first year, prevent seedlings from getting smothered by vigorous grass growth or by perennial weeds. When the grassland grows to a height of 10-15cm, it should be mown to a height of about 5 cm, and the grass cuttings removed. You may need to do this several times over the year. Over the next few years you should be aiming to allow the sward to fill out, creating a good coverage of wildflowers and grasses. The grassland should be cut (or grazed) once a year after it has flowered and the seed has dropped (late July – August). Consider creating a buffer strip between the arable field and the new grassland created, this will reduce the encroachment of nutrients, herbicides and pesticides.

B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	2		These grass management techniques aim to help provide a varied structure to provide for bees and other pollinators a continuous supply of flowers they require to forage on. By alternating headlands, they can also keep the whole field/area in good agricultural condition. During the growing season, leave a 4m uncut (or ungrazed) strip along the field margin. During the first or second grass/silage cuts, leave one headland (side) uncut; then at the next grass/silage cut the previously uncut area is mowed and a different area of headland (side) is left uncut. Grazing of grassland and resting to avoid 'over grazing' can also provide a varied sward height.	Repeat this to maintain a varied sward height, consider rotating the uncut/ungrazed margins.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble Rubus fruticosus agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.		2			Ensure regular monitoring to inspect the grassland to ensure that scrub does not exceed 20%. Mechanically flail, mow or spot spray with herbicide the scrub to remove as necessary. Seek advice to remove any bracken.
D	Physical damage is evident in less than 5% of the total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.		2		Inspect the sward and should gaps appear broadcast either seed in the gaps to prevent establishment of weeds or enhance the grass sward by Hay strewing.	Regularly monitor the grassland sward to ensure no bare ground.
E	Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens.	Yes	2		Inspect the sward and should gaps appear broadcast either seed in the gaps to prevent establishment of weeds or enhance the grass sward by Hay strewing.	Regularly monitor the grassland sward to ensure no bare ground.
F	Cover of bracken *Pteridium aquilinum* less than 20%.	Yes	2			Ensure regular monitoring to inspect the grassland to ensure that scrub and bracken growth does not exceed 20%. Mechanically flail, mow or spot spray with herbicide the scrub to remove as necessary. Seek advice to remove any bracken.

G	There is an absence of invasive non-native plant species3 (as listed on Schedule 9 of WCA4).	Yes	2			Management of the sward using light machinery and prior to the wetter months will ensure that minimal damage occurs to the grassland. Ensure regular monitoring to ensure that there is an absence of non native invasive species and invasive weeds such as Rhododendron, creeping or spear thistle and docks. Ensure appropriate guidelines are followed to safely remove the invasive species.

Footnote 1 – Creeping thistle Cirsium arvense, spear thistle Cirsium vulgare, curled dock Rumex crispus, broad-leaved dock Rumex obtusifolius, common nettle Urtica dioica, creeping buttercup Ranunculus repens, greater plantain Plantago major, white clover Trifolium repens and cow parsley Anthriscus sylvestris.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended)

Grassland (Low Distinctiveness)

Creation, Enhancement and Management Detailed Methods (GL-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Parcels	Timing	Prescriptions
Applying seed	2	August-October	Broadcast seed onto the surface of a prepared seedbed (at establishment or where there are gaps in the sward). Seeds should be trampled or rolled in after. Consider introducing seeds in phases and/or hay strewing. Some plant species are much easier to establish than others. If sowing a mixed grass and wildflower mix (generally 80:20 mix) use seed at rate of 10-20kg/ha.
Intensive Management	2	In Yrs 1 - 2 (yr 2 is required)	In the first year, prevent seedlings from getting smothered by vigorous grass growth or by perennial weeds. When the grassland grows to a height of 10-15cm, it should be mown to a height of about 5cm, and the grass cuttings removed. You may need to do this several times over the year.
Cut and remove	2	Throughout the growing season initially to establish sward. Then when established from mid July - September - Annually	Cut and remove the cuttings off site. Cutting should be down to 5 cm. Cuts should be taken with low impact equipment or suitable mowers. Ensuring that there is a varied sward height, cut and strew (spread) twice to allow any grass and flower seeds to fall out and to increase the seed bank. Remove the cuttings off site and use for forage or composting.
Hey strewing	2	Immediately after cutting the donor site. After year 4, then adaptive management when required.	Spread the hay at reasonable depth (up to 10cm).Once strewn, in the first year the vegetation growth should be cut up to 4 times and then the grassland should be treated as a traditional hay meadow thereafter
Varying sward height	2	Annually - after sward establishment.	During the growing season, leave a 4m uncut (or ungrazed) strip along the field margin. During the first or second grass/silage cuts, leave one headland (side) uncut; then at the next grass/silage cut the previously uncut area is mowed and a different area of headland (side) is left uncut. Grazing of grassland and resting to avoid 'over grazing' can also provide a varied sward height
To ensure bare ground is <5%	2	Inspection and gapping up with seed/hay strewing - from Yr 2 in creation, then annually.	Inspect the developing sward and should gaps appear broadcast either seed in the gaps to prevent establishment of weeds or enhance the grass sward by Hay strewing
Regular monitoring for scrub, bracken, invasive species.	2	Annually – prior to first cut	Ensure regular monitoring to inspect the grassland to ensure that scrub, bracken and invasive species are not over prevalent or present.
There are 6 - 8 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type.	2	By year 10	Monitor to identify and manage in wetter areas bog mosses, such as sphagnum, these places should be at least 33%. Dwarf shrubs may also colonise by up to 33% (at least 2 species should be frequent), with the cover of grasses, sedges and rushes being less than 75%. If heather is establishing, it should have a diverse age range, with pioneer stage plants covering between 25% and 50% of this stand and mature/degenerate plants covering at least 10%. Consider using goats, cattle to lightly graze the sward, ensuring that no more than 33% of heather shoots show signs of grazing.

Grassland (Low Distinctiveness) Species Lists (GL-T03)

Supporting Information (GH-B02)

Reference should also be made to UKHab V2 (2023) UK Habitat Classification, for the range of species typifying a Modified Grassland (see below).

Species

Palatable, productive grasses dominate, mainly Rye-grasses *Lolium spp.*, Timothy *Phleum pratense*, Cock's-foot *Dactylis glomerata*, Crested Dog's-tail *Cynosurus cristatus* and Yorkshire Fog *Holcus lanatus*.

Grass cover is usually >75%.

Broadleaved species are restricted mainly to White Clover *Trifolium repens*, Creeping Buttercup *Ranunculus repens*, Greater Plantain *Plantago major*, Dandelion *Taraxacum officinale agg.*, Broad-leaved Dock *Rumex obtusifolius* and Chickweed *Stellaria media*.

Fertile but wetter situations may support occasional Soft Rush *Juncus effusus* or Hard Rush *Juncus inflexus*, Floating Sweet Grass *Glyceria fluitans*, Creeping Bent *Agrostis stolonifera* and Rough Meadow-grass *Poa trivialis*.

What Does Success Look Like? (GL-F01)