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Grassland (Medium Distinctiveness) Creation, Management & Monitoring Plan

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Grassland (Medium Distinctiveness) Creation, Management & Maintenance Plan
Technical Appendix

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1.0 Introduction & Objectives

- 1.1 This management plan covers the medium distinctiveness habitats 'g3c – other neutral grassland' as described within UKHab and within the Statutory Biodiversity Metric.
- 1.2 As part of a Ford Motor Company's initiative to enhance their UK industrial sites ecological and environmental footprint, Tyrer Ecological Consultants Ltd have been commissioned to undertake an ecological evaluation of the Ford Halewood Transmissions site, and advice options to enhance the sites ecological value.
- 1.3 Subsequently, a Habitat Enhancement Strategy report (v1.1) has been produced by Tyrer Ecological Consultants Ltd (**Appendix I**) and submitted to the project team, which outlines the sites baseline ecological condition by summarising the sites habitat value in addition to an assessment of the sites zone of influence to ensure enhancement options are suitably targeted. The primary component of this report was the inclusion of two enhancement strategy 'options' which aimed to provide quantifiable net gains through differing habitat enhancement/creation. The baseline value and both enhancement options were quantified through the use of the Statutory Biodiversity Metric Tool.
- 1.4 Following submission, a period of review was conducted by the Ford project team in order to deliberate over the direction of enhancement. Subsequent conclusions have resulted in 'Option 1' being decided as the most appropriate course of action.
- 1.5 Option 1 aims to provide the greatest increase in biodiversity units. This option aims to enhance habitats on site without changing the functionality of the site in its current form. This is achieved primarily through enhancement of existing modified grassland parcels found throughout the site into higher distinctiveness neutral grassland, as well as the enhancement of existing neutral grassland into better condition neutral grassland through an appropriate management strategy. Furthermore, it is proposed that additional individual trees and hedgerows are planted throughout the proposed neutral grassland parcels to increase terrestrial connectivity within the site.
- 1.6 To achieve biodiversity net gain at the sites, habitat creation and enhancement measures are required, along with management plans to ensure the habitats achieve their intended conditions.
- 1.7 This document therefore aims to address the need for such a plan in relation to 'Medium Distinctiveness Grassland' by providing extensive information in relation to the creation, management and continued maintenance of said habitat for an initial period of 5 years.
- 1.8 A clear understanding of the intended character and / or future use of the habitat will help ensure that it will be created, managed and maintained correctly and will therefore reach target condition and maturity in the form in which it has been designed in this habitat creation, management and maintenance plan (CMMP).
- 1.9 The Ford Halewood grounds maintenance team will be responsible for habitat creation, management, and maintenance within all areas of the site; as well as undertaking regular monitoring. Regular inspection of the site, keeping records of all work, inspections, issues and corrective action will be required. These records will feed into the wider monitoring of the site in accordance with the site's Management and Monitoring Plan. A list of Maintenance Operations will be included to help inform the teams which takes on the management and maintenance of this landscape.

NB: *The body managing the habitat does not need to be an ecologist, but should be familiar with the Tyrer Ecological report(s) as a minimum, the projected aims and objectives for the site, target habitat conditions, ecological sensitives and have sufficient authority and presence to influence activities. In the event of any uncertainty about ecological issues surrounding the habitat, the body is responsible for contacting an Ecologist.*

Aims

- 1.10 The general aims for the management and maintenance of this specific habitat within the Halewood site include the following:
- Maintain and manage the newly created / enhanced habitat at the stated target condition for the period of at 5 years.
 - To maintain and manage the newly created/ enhancement habitat to deliver the proposed biodiversity units for the site.
 - Ensure maintenance of the site habitat in a safe and secure condition.
 - Provide an enhanced / novel habitat on the site which will benefit biodiversity both within the site and the immediate vicinity and contributes towards the wider ecological network and nature recovery.

Possible Constraints to Creation, Management & Maintenance

- 1.11 Any management that would result in offences under protective legislation pertaining to wildlife **cannot** be undertaken and additional measures may be required to ensure wildlife is protected. As such, creation and management provisions are devised to ensure conformity with all relevant legislation, which includes (but is not limited to); the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Conservation of Habitats and Species Regulations 2019 (EU Exit) (as amended).
- 1.12 The key species groups which have the potential to be present on-site both during and at the post-development stage, therefore requiring careful consideration during any management and / or maintenance operations, are:
- **Amphibians:** Many amphibian species are protected under legislation, with common toad (*Bufo bufo*) being a UK Biodiversity Action Plan (UKBAP) species, common frog (*Rana temporaria*) legislated under a variety of local BAPs (LBAP), and great crested newt (GCN) (*Triturus cristatus*) are fully protected in all life stages by Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) and the Wildlife and Countryside Act (1981) (as amended). They are listed a priority species under section 41 (s.41) of the Natural Environment Rural Communities Act 2006 (NERC Act). Should a GCN be observed at any time during management operations then work should cease and an ecologist be contacted for further advice.
 - **Breeding birds:** All wild birds, their eggs, young and nests, whilst being built or occupied are protected under both the Wildlife and Countryside Act (WCA 1981) and Natural Environment and Rural Communities Act (NERC Act 2006). Birds listed on Schedule 1 of the WCA 1981 are afforded a greater level of protection and are protected also from disturbance. The new habitats within various grasslands could provide certain bird species with suitable nesting habitat within tall areas of vegetation, and sufficient checks should be made by the wildlife champion to ensure that operations will not have an impact on breeding birds during the months of May – September. Any areas found to contain any nesting birds should be left undisturbed until such time the nest site has been naturally abandoned.
 - **Mammals:** Many mammalian species are protected under legislation, with badger (*Meles meles*) legislated under the Protection of Badgers Act (1992) and the Wildlife and Countryside Act (1981) (as amended) and hedgehog (*Erinaceus europaeus*) listed a priority species under Section 41 (s.41) of the Natural Environment Rural Communities Act 2006 (NERC Act). These species alongside other small mammals are likely to be present within grassland habitats, at least in a foraging/commuting capacity. Should evidence of any protected species be observed onsite, Reasonable Avoidance

Measures may be necessary to limit any impacts to the species. Water vole are fully protected under the Wildlife and Countryside Act (1981) (as amended), they may be utilise grassland habitats in a riparian setting. Works near watercourses may require a pre-commencement check for water vole to ensure they are unharmed.

2.0 Enhancement Opportunities

- 2.1 This document aims to provide clear and concise creation, management and maintenance operations regarding the habitat for which it has been created.
- 2.2 These operations should, however, provide measurable benefits to the grassland habitat in accordance with the BNG Metric guidance sheets available from Natural England. The condition sheets provided for each habitat showcase a variety of different criteria which are applicable for the specific habitat. Based on the number of criteria passed by the habitat, a condition is achieved which helps to better represent the biodiversity value of said habitat. As such, a condition can be 'enhanced' by ensuring that more criteria are met by the habitat by way of management provisions.
- 2.3 For the 'Grassland (Medium Distinctiveness)' habitat, there are five core criteria and one additional criterion, and certain thresholds which must be met to achieve either good, moderate or poor condition (see **Table 2.1** below for further detail). The feasibility of creating, or enhancing to, the desired habitat covered by this plan will depend upon a number of site-specific factors including soil enrichment and pH, for example.

Table 2.1 – Condition Assessment Criteria Sheet for 'Medium – Very High Distinctiveness Grassland'

Condition Assessment Criteria	
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.
E	Combined cover of species indicative of suboptimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.
Additional Criterion - must be assessed for all non-acid grassland types	
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.
Condition Assessment Result	
Condition Assessment Score	
Non-acid grassland Types (Result out of 6 criteria)	
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good
Passes 3 - 5 criteria, including essential criterion A.	Moderate
Passes 2 or fewer criteria OR Passes 3 or 4 criteria excluding criterion A and F.	Poor
Footnotes	
Footnote 1 – Professional judgement should be used alongside the UKHab description.	

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3 – Species indicative of suboptimal condition for this habitat include: 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*. There may be additional relevant species local to the region and or site.

Footnote 4 – 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, by applying professional judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).

- 2.4 Given the generalist nature of this document, no specific recommendations will be made in respect of exact grassland enhancement as the nature of the recommendations will vary dependent on the existing and target conditions of the habitats in question. Options to match each of the criteria below have been provided in **Section 4.0**, with specific operations regarding each criteria prescribed.

3.0 Creation Scheme

- 3.1 This grassland CMMP has been created with the specific objectives set out in Section 1.0, however in brief the plan aims to cover the entire process of grassland management, from inception stage all the way through to enhancement, maintenance and monitoring. Through following the plans outlined, the grassland habitat, in time, should provide at a minimum the proposed units outputted by the relevant Metric which has been referenced in the Ford Halewood Habitat Enhancement Strategy report (**Appendix I**).
- 3.2 The following habitat types are covered by this management plan, in line with BNG Metric guidance and habitats identified within the site:
- **g3c** – Other neutral grassland (medium distinctiveness).
- 3.3 Any planting scheme for the creation of this habitat should consist of native species which are within their native range in the north-west of England, though the wider ecological context should also be taken into consideration when selecting species; as well as creating a diverse species list, the scheme should aim to complement, enhance, and/or extend what native habitat exists on the site or in its immediacy.

Soil Conditions

- 3.4 Plant communities which grow in an area and ultimately inform the habitat categorisations given in UKHab are determined, amongst other factors, by the characteristics of the substrate on which they grow. Generally, habitat creation or enhancement will be most successful and require least intervention when sympathetic to specific soil conditions of a site. Several key features dictate the species of plants which will successfully grow in a soil, namely the fertility, pH, and structure.
- 3.5 These factors can be assessed using soil test kits, which will typically provide information on pH and key indicators of fertility including phosphorus, potassium and nitrogen, and can be used without any special training or qualifications.
- 3.6 For the purposes of this plan, pH is considered most relevant, as methods for reducing 'improvement' or soil fertility are included in the habitat management methods to achieve the criteria of the condition assessments in Section 4.0. However, when creating the grasslands covered by this plan in areas of high fertility, additional preparative measures including deep ploughing to bury nutrients or excavation to remove soil can be undertaken. Soil phosphorus should be low, with an index of 0-1 or 16mg/l to prevent the desired species being crowded out by ruderals and competitive grasses.
- 3.7 The g3c – other neutral grassland occur most commonly on neutral soils with a pH of 6.0-6.5, but g3c will also occur on more acidic soils with a pH as low as 4.5.
- 3.8 Soil pH can be modified, typically through the addition of acidic or basic materials; however, this is generally not advised as it can result in unforeseen impacts to adjacent habitats, and is not a permanent solution to soil pH, and further materials would need to be added over the lifetime of the 5-year management plan.

Other Neutral Grassland Creation

- 3.9 The UK Habitats 2.0 (2023) defines other neutral grassland as the following:

"A neutral grassland that does not meet the definition of either g3a¹ or g3b² AND that meets at least three of these four criteria:

¹ Lowland meadows

² Upland hay meadows

1. >20% cover of broadleaved herbs and sedges;
2. >8 species per m² (including forbs, grasses, sedges and rushes, and excluding bryophytes);
3. ≥1 grass species that is not generally sown for intensive agricultural production (ie. Rye-grasses *Lolium* spp., Timothy *Phleum pratense*, Cock's-foot *Dactylis glomerata*, Meadow fescue *Festuca pratensis*) is at least abundant;
4. Cover of Rye-grasses *Lolium* spp. and White Clover *Trifolium repens*, where present, is <30%...

Grasses may include Common Bent *Agrostis capillaris*, False Oat-grass *Arrhenatherum elatius*, Yorkshire-fog *Holcus lanatus*, Perennial Rye-grass *Lolium perenne*, Common Bent *Agrostis capillaris*, Crested Dog's-tail *Cynosurus cristatus*, Rough Meadow-grass *Poa trivialis* and Cock's-foot *Dactylis glomerata*. On wetter sites, Velvet Bent *Agrostis canina*, Creeping Bent *Agrostis stolonifera* and Marsh Foxtail *Alopecurus geniculatus* may be frequent, and rushes such as Soft Rush *Juncus effusus* and Hard Rush *Juncus inflexus* are likely to be present.

Herbs commonly found include Yarrow *Achillea millefolium*, Ribwort Plantain *Plantago lanceolata*, Creeping Thistle *Cirsium arvense*, White Clover *Trifolium repens*, Red Clover *Trifolium pratense*, Meadow Buttercup *Ranunculus acris*, Creeping Buttercup *Ranunculus repens*, Common Nettle *Urtica dioica*, Hogweed *Heracleum sphondylium* and Daisy *Bellis perennis*. On wetter sites, herbs commonly found including Silverweed *Potentilla anserina*, Wild Angelica *Angelica sylvestris* and Fleabane *Pulicaria dysenterica*."

- 3.10 The specific indicator species cited by UK Habitats in their definition for other neutral grasslands can be found in **Table 3.1** below. The reader should be aware that this list is not exhaustive and in fact includes several species indicative of suboptimal condition including creeping buttercup (*Ranunculus repens*) and white clover (*Trifolium repens*).

Table 3.1 – UK Habitats other neutral grassland indicator species list

Common Name	Scientific Name
Cock's-foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Creeping bent	<i>Agrostis stolonifera</i>
Creeping buttercup ³	<i>Ranunculus repens</i>
Creeping thistle ³	<i>Cirsium arvense</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Daisy	<i>Bellis perennis</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fleabane	<i>Pulicaria dysenterica</i>
Hard rush	<i>Juncus inflexus</i>
Hogweed	<i>Heracleum sphondylium</i>
Marsh foxtail	<i>Alopecurus geniculatus</i>
Meadow buttercup	<i>Ranunculus acris</i>
Perennial rye-grass	<i>Lolium perenne</i>
Red clover	<i>Trifolium pratense</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Rough meadow-grass	<i>Poa trivialis</i>
Silverweed	<i>Potentilla anserina</i>
Soft-rush	<i>Juncus effusus</i>
Velvet bent	<i>Agrostis canina</i>
White clover ³	<i>Trifolium repens</i>
Wild angelica	<i>Angelica sylvestris</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire-fog	<i>Holcus lanatus</i>

³ Species listed an indicative of suboptimal condition in the Statutory Biodiversity Metric Condition Assessment

- 3.11 Neutral grasslands are created through direct seeding. Initially, the area should be cleared and any perennial weeds such as common nettle (*Urtica dioica*), docks (*Rumex sp.*) or thistles (*Cirsium sp.*) dug out. The land should then be raked, making it as level as possible.
- 3.12 Sowing of a seed mix can be used to establish a desirable species composition at the newly created grassland.
- 3.13 When using a seed mix, the suitable seed mix should be sown on prepared ground, by digging and creating a fine seedbed or scarifying the grass. The seed mix should then be cast over the bare ground (typically in late August or September), ensuring the area is not too wet to avoid the seed sitting in standing water, before being trodden in and watered regularly, but not covered with soil. A sowing rate of four grams of seed per m² of habitat should be utilised. These species are generally perennial, and as such will be slow to germinate and grow and will not normally flower during the first season. Raking of seed should be avoided, as this can concentrate the seed distribution or bury the seed too deep. If there is a prolonged dry period, the seeded area may be lightly watered. Birds and other seed predators should be kept off the land as much as possible; [deterrents](#) can be installed to discourage predation where required.
- 3.14 A variety of suitable seed mixes for neutral grassland creation can also be found online, such as [EM1 Basic General Purpose Meadow Mixture from Emorsgate Seeds](#) or [Dual Purpose Wildflower Seeds LWXM from Landlife Wildflowers](#), which again provide further guidance regarding ground preparation, sowing and management. A 20% native wildflower and 80% native grass seed mixes, featuring many of the species cited in **Table 3.1**; different seed mixes may be better suited to different specific soil conditions, soil testing as described in section 3.6 will help identify the most appropriate mixes. Further guidance regarding ground preparation, sowing and management can also be found in the descriptions. Successful application of the above mixes or similar in terms of species composition will allow a neutral grassland habitat to be created, provided the habitat meets the specific criteria outlined in the UK habitats definition stated in section 3.10.
- 3.15 Sowing of yellow rattle in combination with the sowing of an appropriate seed mix can help to reduce competition from undesirable grasses on fertile sites; this species is parasitic and reduces the vigour of such grasses, allowing a wider variety of botanical species to establish.
- 3.16 Throughout the first growing season seeded areas should be topped up and mown in regular, two monthly intervals to ensure weeds do not become dominant, cutting height during this first year should be to approximately 50mm with a focus on establishment of grasses and removal of nutrients. For a minimum of two years following this first growing season, a biannual cut should take place to ensure establishment with the first, partial cut in mid-July to September leaving 10-20% uncut, and a second full cut in October-December removing late-season growth. All cut materials should be removed from site in order to prevent nutrient build-up within the soil.
- 3.17 Once a grassland is established, an annual varied cut will be carried out using a mower in late summer / early autumn (reducing sward height to no lower than 30mm, and no longer than 100mm, with at least 20% over 70mm and 20% under 70mm) to allow the seeds of late flowering species to fall prior to a cut. Cuttings will remain on-site for three to five days to following the cut to allow seeds to disperse, and then be removed in order to remove nutrients and promote the development of a species-rich sward and placed on habitat piles located on Site.

4.0 Management & Maintenance Programme

- 4.1 During any future grassland management / maintenance works, disturbance to the surrounding habitats will be minimised and the works should be undertaken by hand and light machine (strimming) wherever possible.
- 4.2 The ideal time to undertake management/maintenance of a grassland will depend upon the specific activity – for example, any seeding to create grasslands or reseeding in bare areas is typically best undertaken in late summer or early autumn, while management activities such as removal of invasives is best undertaken in spring-summer and removal of encroaching scrub in winter outside of the breeding bird season.
- 4.3 Inspections:
- Inspect grassland annually when vegetation is beginning to flower (typically July-August) to ensure a diverse structure is maintained, check for signs of disease, invasive species and informing ensuing management prescriptions based on target habitat type.
- 4.4 **Table 4.1** provides management and maintenance prescription objectives to be implemented to assess and enhance the grasslands in relation to each condition assessment criterion.

Table 4.1 – Specific management prescriptions in relation to each criterion

Criterion A
<i>“The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).”</i> <i>Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.”</i>
Objective: To ensure that the habitat is representative of a UKHab description; that is to say, the habitat meets the specific criteria outlined in its description.
Management Prescriptions: <u>Other Neutral Grassland:</u> - Planting of broadleaved herbs and sedges to cover a minimum of 20% of the habitat parcel. - Planting of additional species to meet a minimum of 8 species per m², targeting the incorporation of indicator species. - Planting of at least one grass species to abundance that is not generally sown for intensive agricultural production, such as common bent, false oat-grass, crested dog’s-tail, or rough meadow-grass. - Removal of rye grasses and white clover where present to ensure a maximum of 30% cover of the habitat parcel.
Criterion B
<i>“Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.”</i>
Objective: To ensure there is a varied sward throughout, ensuring that specific microclimates exist within the parcel to support a wide variety of fauna.

Management Prescriptions:

- a. An annual and targeted cutting by mower in late summer / early autumn to allow the seeds of the later flowering species to fall prior to the cut.
- b. Cut height should be varied using staggered bursts, leaving some areas (minimum of 20% of the habitat) uncut and above 7cm, and other areas (minimum of 20% of the habitat) cut to below 7cm.
- c. Cuttings will remain on-site for three to five days following the cut to allow seeds to disperse, and then be removed in order to remove nutrients and promote the development of a species rich sward and placed on habitat piles located on Site.
- d. Sufficient variety of species should be present (see **Criterion A** above) so as to naturally achieve different heights at throughout the year a naturally varied sward height.

Criterion C

"Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens."

Objective: To ensure that the vegetation specific to the habitat present is consistent throughout the parcel, with no large areas of bare ground that exceed 5% of ground cover.

Management Prescriptions:

- a. Identifying areas of bare ground during inspections/monitoring.
- b. Where any areas remain bare by Year 2 following habitat creation, or are bare prior to management, seeding/reseeding will occur in these areas as per the creation processes in Section 3.0.
- c. Should areas of bare ground be as a result of erosion, any such areas should be fenced off to prevent pedestrian or other access to allow the vegetation to recolonise.
- d. As a part of points a-c above, 1-5% of the grassland should be earmarked for retention as bare earth to allow natural succession to occur at the site. Where less than 1% of total grassland area comprises bare earth, bare patches should be created through scarification and/or turf stripping. Areas typical of the grassland should be targeted, and areas dense in desirable species avoided.

Criterion D

*"Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%."*

Objective: To prevent encroachment of scrub or bracken, which may outcompete the specific species indicative of the habitat parcel and eventually change the habitat type.

Management Prescriptions:

- a. Targeted thinning and removal of bracken when encroaching on the habitat, ensuring that it never exceeds 5% of cover within the parcel.
- b. Targeted thinning and removal of scrub species when encroaching on the habitat, ensuring that they never exceed 20% of cover within the parcel. (In acidic grasslands, ericaceous dwarf shrubs such as heather (*Calluna vulgaris*) should be targeted for the maximum 5% scrub retention, with species such as bramble (*Rubus fruticosus*) or blackthorn (*Prunus spinosa*) targeted for removal.

NB: Scrub removal must not be undertaken during the breeding bird season which is 1 March to 31 August inclusive.

Criterion E

"Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed."

Objective: To ensure that the indicator species indicative of the habitat identified are not outcompeted by noxious weeds or invasive species or are damaged due to over exposure and physical damage, leading to degradation of the habitat and potential loss of species.

Management Prescriptions:

- Initial and continued removal of species indicative of sub-optimal condition when present. These species include creeping thistle, spear thistle, curled dock, broad-leaved dock, common nettle, creeping buttercup, greater plantain, white clover and cow parsley. Further species may also be relevant depending on the area or site.
- Preventing heavy machinery / excess grazing / high access levels to the habitat, meaning that areas with resulting damage make up less than 5% of the total habitat area. This may involve signage or fencing around the habitat parcel to prevent interference by the public or grazers in the area.
- Initial and continued removal of any invasive non-native species, listed as such under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) or Schedule 2 of the Alien Invasive Species Order (2019) by a qualified invasive species contractor in line with a precautionary working method statement with appropriate biosecurity protocol.

Criterion F (Non-acid grassland types only)

"There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count).

Note – this criterion is essential for achieving Good condition for non-acid grassland types only."

Objectives: To ensure grassland is biodiverse and species-rich, and hosts indicator species typical of the habitat type.

Management Prescriptions:

- Allowing for natural regrowth of plant diversity, and/or the sewing of an appropriate native seed and grass mix (as identified in Section 3.0) to help improve the species diversity and to achieve the threshold of 10 species per m².

4.5 **Table 4.2** below outlines a yearly calendar for the undertaking of the above management prescriptions.

Table 4.2 – Maintenance operations schedule for grassland

Operation	Months												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Visual inspection of lowland meadow							✓	✓					Inspect grassland annually as per Section 4.3
Year 1 management			a/r										Grassland should be reseeded, watered and mown as required, as per Section 3.0.
Year 2 onward cutting								✓	✓				Annual cut as per Section 3.0

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Operation	Months												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
INNS and injurious plants removal	a/r												Identify invasive plants and notify site manager, remove by hand or with aid of INNS contractor
Remove injurious plants, scrub and bracken	✓	✓							✓	✓	✓	✓	Identify injurious plants and notify site manager, remove by hand
Reseeding/ seeding of bare areas								a/r					Following the creation processes as per Section 3.0 of this report
Table Key One operation per specified month – ✓ As required = a/r													

5.0 Monitoring Scheme

- 5.1 Through the establishment and 5 year management and monitoring duration for which this plan covers, records should be kept of all operations carried out in relation to any part of the management plan. The actual management operations carried out can then be compared to the theoretical plan and any areas where there are discrepancies can be investigated further and changes can be made, either to the operation schedule or to the plan itself, to better reflect the nature of the habitat in question and to improve the efficacy of the scheme. Reviews should be undertaken annually for the first 5 years, in order to better develop the scheme and to adjust any parts of the plan which may not be achieving their objectives (see **Table 4.2**); refer to **Table 5.1** for monitoring schedule. If possible, the management should then be monitored by the in-house grounds team every 5-years, assessing the grassland against the stated criteria.
- 5.2 Monitoring reviews should only be undertaken by a suitably qualified person, typically an ecologist with an equivalent FISC 4 or greater botanical qualification. The extent of grassland establishment will be monitored, including percentage of ground cover, bare areas and presence of leaf litter. Sward composition will also be reviewed, with grass to herb ratio and indicator species considered. These reviews will then allow any parts of the plan which may not be achieving their objectives to be adjusted to better develop the scheme.
- 5.3 In the final year of the plan, the actual progress should be reviewed against the predicted status of the habitat, in order to evaluate the effectiveness of the operations carried out up to that point. This information can then be used to inform a subsequent long-term management plan if it is deemed necessary by the local authority.
- 5.4 All of the species suggested within this plan have been carefully selected in accordance with local suitability for the north-west, and any plant material which is unsuitable or defective in any other way should not be considered.

Table 5.1 – Monitoring schedule

Monitoring Year	Attending Ecologist (Signature)	Recommendations (Following Inspection)
2025		
2026		
2027		
2028		
2029		
2030		