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## Section 3 Farm Habitats – Background Information and Management Requirements

All farm habitats must be brought under agreement and managed as specified in Section 3. The management requirements, which are highlighted in green, are designed to maintain and enhance the habitat.

### Grasslands

Bird breeding, feeding and nesting sites

### Wetlands

Moorland and raised bog

Woodland, scrub and parkland

Archaeological features

### 1. Grasslands

#### (i) Improved land

Improved land includes arable land and grassland where the sward contains more than 25% ryegrass, Timothy, white clover or other sown species indicative of cultivation and will generally have no native grasses, sedges or wild flowers present.

Improved land should be managed in accordance with the 'Whole Farm Requirements' detailed in Section 2.

#### (ii) Unimproved grassland

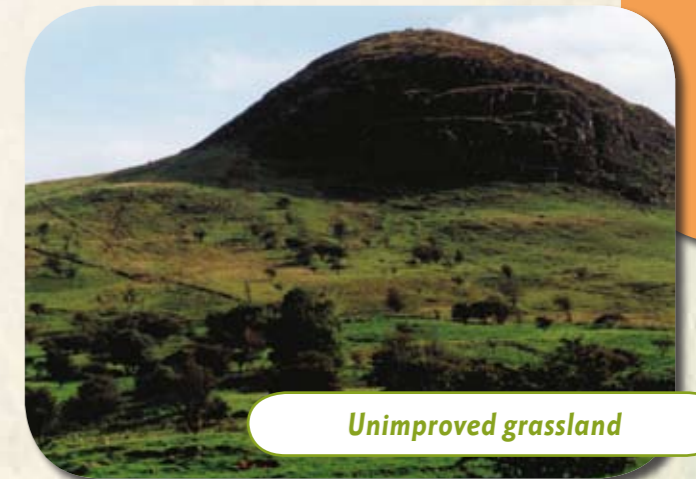
Unimproved grassland is permanent grassland which has not been cultivated for some years. Native grasses such as crested dog's tail and Yorkshire fog may be present. The sward contains less than 25% ryegrass, Timothy, white clover or other sown grass species indicative of cultivation. This habitat will have less than five wild flowers, grasses or sedges indicative of species-rich grassland (see Appendix 3 for full list) present in an area of one square metre, at six out of ten random points in a field area.

**Aim:** to maintain and enhance the biodiversity value of unimproved grassland and extensive grassland systems.

**Biodiversity objectives:** unimproved grassland contributes to a range of Northern Ireland Biodiversity Action Plan targets such as the Irish hare, skylark and various insects, beetles and spiders.

#### Management requirements

- Annual nitrogen applications must not exceed 125kg per hectare.
- Unimproved grassland must be maintained by grazing. A hay crop or light silage crop may be removed.
- No cultivations, ploughing or reseeding are permitted.
- New or improved drainage systems must not be installed.



Unimproved grassland

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- Rush control must be carried out where rushes cover more than one third of the area. Rushes must be controlled by cutting or weed wiping preferably between 15 July and 15 March leaving 10% uncut/not wiped.
- No applications of pesticides or herbicides are permitted except by weedwiper or by spot spraying to control rushes or noxious weeds.
- The spread of scrub/trees must be controlled.
- Supplementary feeders must be rotated to avoid excessive poaching.
- No poaching.

#### Further advice

Grazing management should be at a level that prevents undergrazing or overgrazing. Existing drainage on unimproved grassland may be repaired if necessary, with areas of disturbed soil levelled and allowed to regenerate naturally. The annual payment includes an element for routine positive management such as scrub control and rush cutting.

Written permission must be obtained from DARD before the application of insecticide for leatherjacket control.



Species-rich dry grassland

#### (iii) Species-rich dry and species-rich calcareous grassland

Species-rich dry and calcareous grassland occurs on moderately well drained and/or calcareous soils. If more than five wildflower species, indicative of dry/calcareous conditions, are located in an area of one square metre at six out of ten random points in the field then it is species-rich dry or species-rich calcareous grassland. Indicator species include bird's foot trefoil, thyme and lady's bedstraw. (A

full list of species-rich indicator plants is found in Appendix 3). There must be less than 25% ryegrass, Timothy and white clover in the sward. There are two grazing options for managing species-rich dry/calcareous grassland. The most suitable grazing option will be agreed at the outset of the agreement and will be noted on the farm management map.

**Aim:** to maintain and enhance the conservation value of species-rich grassland through appropriate agricultural practices such as positive grazing management and restrictions on fertiliser and pesticide use.

**Biodiversity objectives:** species-rich dry and calcareous grassland contribute to the Northern Ireland Biodiversity Action Plan targets for the Irish hare, chough, lowland meadow, maritime cliff and slopes, coastal sand dunes and calcareous grassland. The proposed Biodiversity Action Plans for meadow cranesbill, yellowhammer, the marsh fritillary and some Northern Ireland Priority Species, such as the wall brown, dingy skipper and small blue butterflies and Irish eyebright will also benefit.

#### Management requirements

**Option 1:** Year round grazing at a stocking density of 0.5LU/ha.

OR

**Option 2:** No grazing between 1 May and 31 July. Stocking density must not exceed 0.75LU/ha between 1 August and 30 April.

In addition to Option 1 or 2 for grazing, the following requirements must also be followed:

- Excess grass may be saved for hay or silage but must not be cut until after 15 July.
- No cultivation, reclamation, chain harrowing, infilling, dumping, drainage or application of lime, herbicide, pesticide, slurry, poultry litter or any other material, is permitted.
- Where fertiliser has traditionally been applied, applications of farmyard manure only must not exceed 15kg Nitrogen (N) per hectare per year.
- Application of lime requires written permission from DARD.
- Supplementary feeding sites, temporary silage clamps and storage areas for big bale silage or hay are not permitted.
- The spread of scrub/trees must be controlled.
- Trees must not be planted on species-rich grassland.
- Rolling can be carried out between 1 June and 1 April.
- No poaching.

**Further advice**

The annual payment includes an element for routine positive management such as scrub control. Scrub should be prevented from spreading on species-rich grassland – see Appendix 4 for further information. Noxious weeds may be controlled by cutting between 15 July and 15 March or with herbicides, applied using a spot sprayer only.

Existing drainage systems can be maintained but not widened, deepened or extended.

**(iv) Species-rich wet grassland**

Species-rich wet grassland occurs on poorly drained soils.

If more than five wild flower species, indicative of wet conditions, are located in an area of one square metre at six out of ten random points in the field area then it is species-rich wet grassland. Indicator species include meadowsweet, marsh bedstraw, marsh marigold, yellow flag iris and several species of sedges and/or rushes. (A full list of species-rich indicator plants is found in Appendix 3). There must be less than 25% ryegrass, Timothy and white clover in the sward.



*Species-rich wet grassland*

**Aim:** to maintain and enhance the conservation value of species-rich wet grassland through appropriate agricultural practices such as positive grazing management, implementing a no grazing period and restrictions on fertiliser and pesticide use.

**Biodiversity objectives:** the species-rich wet grassland contributes to the Northern Ireland Biodiversity Action Plan targets for the Irish hare and chough. The proposed Biodiversity Action Plans for meadow cranesbill, yellowhammer, redshank, the marsh fritillary butterfly, lowland meadows, lowland dry acid grassland, maritime cliffs and slopes and coastal sand dunes and some Northern Ireland Priority Species, such as the dingy skipper, wall brown, narrow small-reed, melancholy thistle, great burnet and fen violet will also benefit.

**Management requirements**

- No grazing is permitted between 1 January and 15 May.
- Grazing is permitted between 16 May and 31 December at a maximum stocking density of 1.0LU/ha.
- Excess grass may be saved for hay or silage but must not be cut until after the 15 July.
- Rush control must be undertaken where rush cover is more than one third of the area. Rushes must be controlled by cutting between 15 July and 15 March retaining 10% uncut. Herbicide control is not permitted. If ground conditions do not permit rush cutting contact Countryside Management Branch for further advice\*, (see Appendix 9 for contact details).
- No cultivation, reclamation, infilling, dumping, drainage or application of lime, herbicide, pesticide, sheep dip, slurry, poultry litter or any other material is permitted.
- Where fertiliser has traditionally been applied, applications of farmyard manure only must not exceed 15kg N per hectare per year.
- Supplementary feeding sites, temporary silage clamps and storage areas for big bale silage or hay are not permitted.
- Trees must not be planted on species-rich sites.
- The spread of scrub/trees must be controlled.
- No poaching.
- No rolling between 1 April and 1 June.

*\*Prior written approval must be obtained from Countryside Management Branch if you wish to use any method of rush control other than cutting.*

**Further advice**

Scrub should be prevented from spreading on species-rich grassland – see Appendix 4 for further information. The annual payment includes an element for routine positive management such as scrub control and rush cutting.

Noxious weeds may be controlled by cutting between 15 July and 15 March or with herbicides, applied using a spot sprayer only.

Existing drainage systems can be maintained but not widened, deepened or extended.



Species-rich grassland for hay

#### (v) Species-rich grassland cut for hay

If more than five indicator wild flower, grass or sedge species are located in an area of one square metre at six out of ten random points in the field area, and the field is traditionally cut for hay, then it is species-rich grassland cut for hay. (A full list of species-rich indicator plants is found in Appendix 3).

**Aim:** to maintain and enhance the conservation value of species-rich grassland cut for hay and ensure the survival of a traditional farming practice through appropriate cutting periods, appropriate aftermath grazing and restrictions on fertiliser and pesticide use.

**Biodiversity objectives:** the proposed Biodiversity Action Plans for meadow cranesbill, yellowhammer, the marsh fritillary, lowland meadows, and some Northern Ireland Priority Species, such as the dingy skipper, wall brown, narrow small-reed and Irish eyebright will also benefit.

#### Management requirements

- Hay must be cut, but not before 1 July.
- Spring grazing during April and May is permitted where this is traditional practice. Fields must, however, be closed up by 15 May and hay not cut until after 31 July.
- The aftermath must be grazed, to prevent grasses becoming too lush.
- Grazing is not permitted between 1 November and 31 March.
- No cultivation, reclamation, infilling, dumping, drainage or application of lime, herbicide, pesticide, sheep dip, slurry, poultry litter or any other material, is permitted.
- Where fertiliser has traditionally been applied, applications of farmyard manure only must not exceed 15kg N per hectare per year.
- Rolling is not permitted from 1 April to 30 June.
- Supplementary feeding sites, temporary silage clamps and storage areas for big bale silage or hay are not permitted.

- Trees must not be planted on species-rich grassland sites.
- The spread of scrub/trees must be controlled.
- No poaching.

#### Further advice

In extreme weather conditions, grass may be made into big bale silage, with prior written permission from DARD, The grass must have been cut and turned twice. Noxious weeds may be controlled by cutting between 1 July and 15 March or with herbicides, applied using a spot sprayer only.

Existing drainage systems can be maintained but not widened, deepened or extended.

The annual payment includes an element for routine positive management such as scrub control – see Appendix 4 for further information.

## 2. Bird breeding, feeding and nesting sites

#### (i) Breeding wader sites

Breeding wader sites are fields of improved, unimproved or rough pastures with at least one breeding pair of curlew, redshank or snipe. These sites are usually wet for much of the year and the vegetation present includes a range of grasses, sedges and rushes, with few or no wild flowers present.

Breeding waders benefit from cattle or mixed grazing which gives a range of sward heights with tussocks for nesting in and short-grazed areas for feeding. There are two options for managing breeding wader sites – closed grazing or restricted grazing. The most suitable grazing option will be decided at the outset of the agreement and will be noted on the farm management map.



Breeding wader habitat



Curlew



Snipe

**Aims:** to maintain and increase the breeding success of breeding waders through appropriate management.

**Biodiversity objectives:** breeding wader sites contribute to the Northern Ireland Biodiversity Action Plan targets for the curlew, redshank and lapwing. The proposed Northern Ireland Biodiversity Action Plans and the Northern Ireland Priority Species – grasshopper warbler and reed bunting – will benefit.

#### Management requirements

1. Breeding wader site: closed grazing – no grazing permitted from 15 April to 30 June. From 1 July to 14 April there are no stocking density restrictions, however cattle should be grazed at some point during this period, if possible.

OR

2. Breeding wader site: restricted grazing - from 15 April to 30 June the stocking density must not exceed 0.75 LU/ha for cattle or sheep. From 1 July to 14 April there are no stocking density restrictions. However cattle should be grazed at some point during this period, if possible.

In addition to Option 1 or 2 for grazing, the following requirements must also be followed:

- Cattle must not be released directly on to breeding wader sites after being wintered indoors.
- Field operations are not permitted between 15 April and 30 June.
- Do not apply any organic or inorganic fertiliser or lime between 1 February and 30 June. When using farmyard manure, do not apply between 15 April and 30 June.
- On unimproved grassland sites nitrogen must not exceed 125kgN/ha. No fertiliser, slurry, farmyard manure or lime is permitted on rough moorland grazing sites.
- No cultivation, reseeding, reclamation, infilling, dumping or application of herbicide, pesticide, sheep dip, poultry litter or any other material is permitted on these sites.
- Installation of new drainage systems is not permitted.
- Supplementary feeding sites, between 15 April and 30 June, require the written permission from DARD and their location marked on the farm management map.

- Where a silage crop is taken from breeding wader sites, the fields must not be closed up until 1 July.
- Rush control must be carried out where rushes cover more than one third of the area. Rushes must be controlled by cutting between 15 July and 15 March, retaining 10% uncut. Herbicide control is not permitted. See Appendix 6 for further information on control of rushes. If ground conditions do not permit rush cutting contact Countryside Management Branch (CMB) for further advice\*. Contact details are in Appendix 9.
- The spread of scrub/trees must be controlled.
- New tree or hedge planting, or fencing on or next to breeding wader sites requires written permission from DARD.
- No poaching.

*\*Prior written approval must be obtained from Countryside Management Branch if you wish to use any method of rush control other than cutting.*

#### Further advice

From 1 July to 14 April there are no stocking density restrictions, but cattle should be grazed at some point during this period, if possible. Aim to create a medium sward less than 15cm (6 inches) with taller tussocks 30cm (12 inches) or above for nesting by mid April. Heavier grazing after 30 June is recommended to remove rank grasses and create a mixture of tussocks and open areas for next year's breeding season.

Cattle must be outside for at least one week before being put on to breeding wader fields.

Water levels in sheughs and drains should be maintained as close as possible to bank height during the period 1 March to 30 June to create soft ground if this is within the farmer's control.

Noxious weeds such as thistles and ragwort may be controlled by cutting between 15 July and 15 March or with herbicides, applied using a spot sprayer only.

Existing drainage systems can be maintained but not widened or extended.



Chough

### (ii) Chough option

The chough option is available to farmers who farm within a targeted area along the north Antrim coastline of the Antrim Coast, Glens and Rathlin Environmentally Sensitive Area (ESA) on which the chough feed. An individual plan is drawn up for each field entered into the option. The most suitable option will be decided at the outset of the agreement and will be noted on the farm management map.

**Aims:** to maintain and enhance grassland and cliff slope habitat for feeding chough and thereby increase the numbers of nesting chough within the targeted chough area.

**Biodiversity objectives:** this option contributes to the Northern Ireland Biodiversity Action Plan targets for the chough and the Irish hare.

#### Management requirements

- Grassland entered into chough option - see individual field management plans for management required.
- Grassland fields must be grazed to create a sward height of less than 5cm. This should be achieved through mixed grazing, grazing some fields all year through, topping of grass tussocks and by staggering silage cutting dates.
- Spreading scrub/trees, particularly gorse (whin), must be controlled.
- Rushes must be controlled by cutting from 15 July to 15 March only.
- Application of pesticides, herbicides, sheep dip or other material is not permitted.
- No poaching.

**Other farm habitats** - within the chough option area, fields identified as habitat (for example, species-rich grassland) or arable options (for example, winter stubble) will be classified as that habitat. Applicants will be paid for these options and receive the relevant management plans for these.

#### Further advice

Noxious weeds such as thistles and ragwort may be controlled with herbicides, applied using a weed wiper or spot sprayer.

## 3. Wetlands

### (i) Fen, swamp and reedbeds

Wetlands have a naturally high water table. They are usually flooded for part of the year and remain wet until at least the middle of June. Wetlands consist of fen, swamp and reedbed habitats.

Fens are peaty wetlands, which are so wet or waterlogged all year that they can only be occasionally grazed, and then late in the season. Fen vegetation consists of a mixture of sedges, mosses, rushes and flowering plants such as devil's-bit scabious, marsh cinquefoil and orchids. Swamp and reedbed vegetation is dominated by common reed, bulrush, tall sedges or rushes. They are often found in shallow water around lakes and rivers. Reedbeds are periodically flooded, whereas the vegetation of a swamp is permanently flooded.



Reedbed

**Aims:** to provide suitable habitat for associated wetland wildlife by the implementation of appropriate agricultural practices.

**Biodiversity objectives:** this option contributes to the Biodiversity Action Plan targets for curlew, lapwing, blue-eyed grass, marsh fritillary butterfly, fens and reedbeds. Some Northern Ireland Priority Species such as Irish lady's tresses orchid, reed bunting and redshank will also benefit.

**Management requirements**

- No grazing is permitted from 1 January to 31 May.
- Between 1 June and 31 December the stocking density must not exceed 0.075LU/ha at any time.
- No cultivation, reclamation, infilling, dumping, fertilisation, drainage or application of slurry, farmyard manure, lime, herbicide, pesticide, sheep dip or any other material is permitted.
- Supplementary feeding sites, temporary silage clamps and the storage of big bale silage or hay are not permitted.
- The spread of scrub/trees must be controlled.
- Trees must not be planted on fen, swamp or reedbeds.

**Further advice**

Funding for alternative drinking sites, to reduce poaching and trampling damage, may be available under Capital Enhancement Works (Section 1, Figure 3). The annual payment includes an element for routine positive management such as scrub control (Appendix 4) and reed cutting each year.

Water levels in sheughs and open drains should be maintained as close as possible to bank height during the period 1 March and 15 June, to create soft ground, which improves feeding areas for snipe and curlew.

**4. Moorland and raised bog****(i) Heather moorland -****Dry heath, wet heath, blanket bog and degraded heath**

There are four types of heather moorland - dry heath, wet heath, blanket bog and degraded heath. All heather moorland types have at least 25% cover of heather and heath indicator species including western gorse, with the exception of degraded heath, which has between 5 and 25% cover.



**Dry heath** occurs on well-drained shallow peat less than 0.5 metres deep. The vegetation comprises heather, bell heather, bilberry, western gorse with tormentil and grasses.



**Wet heath** occurs on lower slopes too dry or steep for deep peat deposits normally under 200m. Peat depth is up to 0.5m. The vegetation comprises heather, cross-leaved heath, bilberry, deer grass, and purple moor grass with *Sphagnum* mosses.



**Blanket bog** occurs on deep peat deposits over 0.5m deep. The average depth of peat is 2m to 3m. It is formed on areas normally over 200m. Blanket bogs develop topography with numerous pools and raised hummocks, which are formed by *Sphagnum* mosses. Vegetation comprises heather, cross-leaved heath, cotton-grasses, deer-grass, crowberry,

bog asphodel and sedges such as white-beaked sedge. Bog pools and margins support bog bean, sundews and bladderworts. *Sphagnum* mosses are very frequent. Black bog rush and purple moor grass are found on western blanket bogs at lower altitudes.

**Degraded heath** is principally formed as a result of overgrazing and/or peat extraction on moorland and can be classified as either degraded dry heath or wet heath. Heather plants will exhibit characteristic signs of overgrazing such as topiary, drumstick and distorted growth forms. Areas of bare or sparsely covered ground may be present. The vegetation will reflect the original category and will include heather, bell heather, cross-leaved heath, bilberry, cotton grasses and deer grass. Unpalatable grasses such as mat grass and purple moor-grass and rushes may dominate a high proportion of the sward.

**Aim:** to maintain and increase the extent of heather moorland in Northern Ireland through the implementation of appropriate grazing and agricultural practices.

**Biodiversity objectives:** heather moorland contributes to the Biodiversity Action Plan targets for the Irish hare, curlew, hen harrier, small cow wheat, blanket bog, upland heathland, and montane heath. Some Northern Ireland Priority Species such as red grouse, golden plover, few-flowered sedge and cloudberry will also benefit.

**Management requirements**

- No grazing from 1 November to 28/29 February on all heather moorland types. However, within the grazing period, the stocking density and length of grazing will vary depending on the heather moorland type and whether sheep or cattle are used (Table 1).
- No cultivation, fertilisation, liming, reclamation, mineral extraction, dumping, drainage or construction of new lanes is permitted.
- No application of slurry, farmyard manure, herbicides, pesticides, insecticides, sheep dip, fungicides, basic slag, sewage sludge, poultry litter or any other material is permitted.
- Existing drainage systems can be maintained but not widened, deepened or extended.
- Supplementary feeding sites, temporary silage clamps and storage areas for big bale silage or hay are not permitted on heather moorland.
- Peat cutting is limited to 0.1ha for domestic use. Mechanised peat cutting is not permitted.
- The spread of scrub/trees must be controlled.
- The removal of western gorse on dry heath is not permitted.
- New fencing is not permitted without the permission of DARD.
- Trees must not be planted on heather moorland.
- No poaching.
- Burning requires written permission from DARD and cannot be carried out from 15 April to 31 August.

**Table 1: Heather moorland grazing**

Heather moorland type	No grazing period	Stocking density and grazing animal	Grazing period
Dry heath	1 November to 28/29 February	0.30LU/ha sheep	1 March to 31 October
	or 1 September to 31 May	0.30LU/ha cattle	1 June to 31 August
Wet heath	1 November to 28/29 February	0.25LU/ha sheep	1 March to 31 October
	or 1 September to 31 May	0.20LU/ha cattle	1 June to 31 August
Blanket bog	1 November to 28/29 February	0.075LU/ha sheep only	1 March to 31 October
Degraded heath (dry)	1 November to 28/29 February	0.30LU/ha sheep and/or cattle	1 March to 31 October
Degraded heath (wet)	1 November to 28/29 February	0.25LU/ha sheep	1 March to 31 October
	or 1 September to 31 May	0.20LU/ha cattle	1 June to 31 August

**Further advice**

Where a mix of heather types occur within the same grazing unit, an average stocking density based on the ratio of different types will apply to the whole unit, where there is at least 20% of each type. Areas of common grazing will be eligible provided all graziers/shareholders agree to follow the relevant management requirements. The control of bracken and heather regeneration, by burning or flailing, may be funded through Specific Conservation Measures (Section 5). Existing drains may require infilling where DARD deems this necessary. Noxious weeds such as thistles and ragwort may be controlled with herbicides, applied using a weed wiper or spot sprayer. The annual payment includes an element for routine positive management such as scrub control (see Appendix 4).

**(ii) Rough moorland grazing**

Rough moorland grazing is widespread in the uplands and marginal hill land and is dominated by coarse grasses such as purple moor grass, matt grass, tufted hair grass, cotton grasses, wavy hair grass, heath rush, soft rush and sedges. Rough moorland grazing contains less than 25% heather cover and less than 25% ryegrasses, Timothy and white clover.

**Rough Moorland**

**Aim:** to maintain and enhance the conservation value of rough moorland grazing through the implementation of low level grazing and appropriate agricultural practices.

**Biodiversity objectives:** rough moorland grazing contributes to the Biodiversity Action Plan targets for Irish hare and curlew. The proposed Biodiversity Action Plans for purple moor grass and rush pastures, upland calcareous grassland and some Northern Ireland Priority Species such as the golden plover, hen harrier and marsh saxifrage will also benefit.

**Management requirements**

- Stocking rate restriction of 0.75LU per hectare all year.
- No cultivation, fertilisation, liming, reclamation, drainage, dumping or mineral extraction is permitted.



- No application of slurry, farmyard manure, herbicides, insecticides, sheep dip, fungicides, sewage sludge, basic slag, poultry litter or any other material is permitted.
- Existing drainage systems can be maintained but not widened, deepened or extended.
- Supplementary feeding is permitted on rough moorland grazing. All feeding sites must be regularly moved to prevent trampling and overgrazing damage. Care must be taken to avoid damage by vehicles.
- Supplementary feeders or troughs should be placed on lanes or other hard areas within rough moorland grazing and at least 10m away from watercourses.
- Peat cutting is limited to 0.1ha for domestic use. Mechanised peat cutting is not permitted.
- New fencing is not permitted without the permission of DARD.
- Trees must not be planted on rough moorland grazing.
- The spread of scrub/trees must be controlled.
- No poaching.

#### Further advice on rough moorland grazing

The grazing regime and stocking density for rough moorland and heather moorland mosaics, if present, will be given on the farm management map. Where rough moorland grazing constitutes 50% or less of a grazing unit within a block of heather moorland, the stocking density for heather moorland applies to be whole unit. Where rough moorland constitutes more than 50% of a grazing unit, the stocking density for the whole unit will be an average of the heather moorland and rough grazing stocking densities at a ratio of 1:1 irrespective of the area of rough moorland grazing.

Areas of common grazing will be eligible provided all graziers/shareholders agree to follow the relevant management requirements. Existing drains may require infilling where DARD deems this necessary.

The annual payment includes an element for routine positive management such as scrub control (see Appendix 4). Noxious weeds such as thistles and ragwort may be controlled with herbicides, applied using a weed wiper or spot sprayer.

#### (iii) Lowland raised bog

Lowland raised bogs occur in low-lying areas where a dome of peat has accumulated high above the surrounding land. Formed on old lakebeds and waterlogged depressions, the depth of peat can exceed 13m. They support a wide range of plant species including common heather, cotton grasses, bog asphodel, sundew and bog mosses. A mixture of vegetation types such as fen/swamp, wet heath, woodland and semi-natural grassland can be found on lowland raised bogs. The presence and proportion of each type will be agreed at the outset of the agreement and will be noted on the farm management map. Most lowland raised bogs have been cut over for peat in the past.

#### Lowland raised bog



**Aim:** to maintain and enhance the conservation value of lowland raised bog and the suitability of habitat for the associated wildlife through the implementation of appropriate grazing and scrub control management practices.

**Biodiversity objectives:** the option contributes to the Biodiversity Action Plan targets for lowland raised bog, curlew, marsh fritillary butterfly and Irish hare. Some Northern Ireland Priority Species such as the red grouse, the bordered grey moth, Irish damselfly and keeled skimmer dragonfly will also benefit.

#### Management requirements

- On cutover bogs grazing is not permitted from 1 November to 31 May inclusive.
- The stocking density for each lowland raised bog vegetation type is given in Table 2.
- No cultivation, dumping, fertilisation, liming, reclamation, drainage or mineral extraction is permitted.
- No application of slurry, farmyard manure herbicides, insecticides, sheep dip, fungicides, basic slag, sewage sludge, poultry manure or any other material is permitted.
- Supplementary feeding sites, temporary silage clamps and storage areas for big bale silage are not permitted.

- Burning is not permitted at any time.
- Spreading shrubs/trees must be controlled by hand cutting and selective spraying of stumps using guidelines in Appendix 4.
- The area cannot be used by all terrain vehicles.
- Peat cutting is not permitted on areas of intact uncut lowland raised bog.
- Peat cutting on existing cut over bog is limited to 0.1ha for domestic use. Mechanised peat cutting is not permitted.
- Erection of new fences requires the permission of DARD.
- Trees must not be planted on lowland raised bog.

**Table 2: Stocking density for lowland raised bog**

Vegetation type	Stocking density	Grazing period (sheep)	Grazing period (cattle)
Fen/swamp	0.075LU/ha	1 June to 31 October	1 June to 31 August
Wet heath	0.25LU/ha	1 June to 31 October	1 June to 31 August
Semi natural grassland	1.0LU/ha	1 June to 31 October	1 June to 31 August
Woodland (greater than 0.2ha)	0.20LU/ha	1 June to 31 October	1 June to 31 August
Woodland (less than 0.20ha)	0 LU/ha	1 June to 31 October	1 June to 31 August

#### Further advice

Temporary electric fencing may be needed to prevent cattle gaining access to the uncut bog. To minimise permanent fencing, sheep will normally be allowed access to the area of uncut bog (see Table 2). Areas of common grazing will be eligible provided that ALL graziers/shareholders agree to follow the relevant management requirements. Existing drains may require infilling where DARD deems this necessary. The annual payment includes an element for routine positive management such as scrub control (see Appendix 4).

## 5. Woodland, scrub and parkland

### (i) Woodland – mixed ash woodland, oak woodland and wet woodland

Woodlands are areas where the tree canopy covers at least 50% of the ground area. The canopy must contain at least 50% native broad-leaf or native conifer tree species. There are three types of woodland – mixed ash, oak and wet woodland.



**Mixed ash woodland**

**Mixed ash woodland** is usually dominated by ash, although oak, birch and hazel may be abundant. Other species found in mixed ash woodland include rowan, holly, sycamore or beech. Typical ash woodland plants include bluebell, wood anemone, primrose and wild garlic.

**Oak woodland** is dominated by oak, but other tree species such as birch, rowan, holly, ash and hazel may be present. Typical oak woodland plants include bluebell, wood anemone, bramble, wood-rush, ferns and bracken with a large number of mosses and lichens likely to be present.



**Oak woodland**

Tree species commonly found in wet woodland include alder, birch and willow. Ash, oak or other tree species can be found on drier areas within **wet woodlands**. Typical plants of wet woodland include lesser celandine, marsh marigold,

marsh-bedstraw, opposite-leaved golden saxifrage, heather, sedges, mosses and lichens. Plants, indicative of nutrient rich conditions, such as nettle, docks and grasses, may also be present.



**Wet woodland**

There are two options for managing woodland – no grazing and light grazing. The ‘no grazing’ option is suitable for woodlands which have been subject to prolonged grazing, used for over-wintering of livestock and where there is little evidence of natural regeneration. The ‘light grazing’ option will only apply to woodlands which have been closed off to livestock for a considerable length of time, where saplings are present indicating successful natural regeneration and where there is a well developed shrub layer such as bramble, ivy, honeysuckle and other climbers. The most suitable grazing option will be agreed at the outset of the agreement and will be noted on the farm management map.

**Aim:** to maintain and enhance the conservation value of woodland habitat by encouraging natural regeneration of native species and increasing the diversity of woodland ground flora.

**Biodiversity objectives:** the woodland option contributes to the Northern Ireland Biodiversity Action Plan targets for wet woodland, mixed ash woodland, oak woodland, small cow wheat, wood cranesbill, yellow bird’s-nest, one-sided wintergreen and red squirrel.

#### Management requirements

1. No grazing option - livestock must be excluded throughout the year.

OR

2. Lightly grazed option - during the period 1 June to 30 September the stocking density must not exceed 0.50 LU/ha at any time. No grazing is permitted from 1 October to 31 May.

In addition to Option 1 or 2 for grazing, the following requirements must also be followed:

- Retain all deadwood. Individual windblown trees must be left where they lie. Living trees must not be cut down without the prior written consent of DARD.
- Retain important features, such as old vehicular tracks, natural open space and existing ponds. Brashings must not be burned.
- No cultivation, ploughing, fertilisation, drainage, infilling, dumping, burning or application of fertiliser, slurry, farmyard manure, lime, herbicide, pesticide, sheep dip or any other material is permitted.
- Supplementary feeding sites, temporary silage clamps and the storage of big bale silage or hay are not permitted.

- The spread of non-native species, for example rhododendron or laurel, must be controlled.
- Tree management must not be carried out between 1 March and 31 August.

#### Further advice

If lightly grazing woodland use mature cattle if possible. Where no cattle are available, sheep or horses may be used. The annual payment includes an element for routine positive management such as control of non-native species (see Appendix 4), keeping pathways open and an annual inspection to remove rubbish. Pathways can be kept open by cutting overhanging branches. Natural open space should be retained by hand cutting regenerating trees and shrubs. New fencing and installation of traditional wooden gates may be funded as Capital Enhancement Works (Section 1).

Important husbandry considerations when grazing woodland:

- Oak acorns poison cattle, sheep and horses when eaten in autumn and the young buds and leaves are poisonous when eaten in spring.
- All parts of the yew tree are poisonous. The poison is not reduced by wilting or drying, so clippings and fallen leaves are as toxic as the fresh plant. One mouthful may be enough to cause death.
- Hemlock is a tall flowering plant, similar to cow parsley, found along the margins of watercourses and in wet woodlands. It is poisonous to all livestock and humans.
- Rhododendron is extremely poisonous to livestock, particularly sheep and goats - as few as three leaves of the shrub may be fatal to sheep.
- Sheep and lambs are likely to get caught in briars, thorn scrub and holly bushes. If forage is limited sheep will strip the bark of trees. This may kill the trees.
- Fluke may be a problem in wet woodlands.

#### (ii) Scrub

Scrub is an area dominated by at least 50% cover of shrubs, stunted trees or brambles. Scrub may be open, dense or impenetrable, and may contain hawthorn, blackthorn, gorse (whin), bramble, honeysuckle, dog rose, bushy willows (sally) or



Scrub

stunted hazel with few or no mature trees present. Examples of scrub include blackthorn thickets, hawthorn scrub on steep slopes, willow scrub on wet ground, hazel scrub on rocky slopes or on open limestone, mixed species scrub on exposed sites and whin scrub on marginal grassland. Scrub is usually grazed in association with the surrounding grassland/habitat.

**Aim:** to maintain and enhance the conservation value of scrub habitat and features within it through appropriate management.

**Biodiversity objectives:** scrub contributes to the Northern Ireland Biodiversity Action Plan targets for yellowhammer and Irish hare.

#### Management requirements

- Scrub and features within it, such as open spaces and ponds, must be retained and managed with no burning or mechanised removal permitted.
- Within the scrub habitat, small areas (less than 0.1ha) must be cut by hand each year so that at least 50% of the field is capable of being grazed.
- Coppiced stumps must not be treated with herbicide, except where gorse or blackthorn is spreading on to adjoining land (see Appendix 4).
- Cut stems may be left on site to rot down, but must not be burnt on site.
- No cultivation, reclamation, infilling, dumping, drainage or application of fertiliser, slurry, farmyard manure, lime, herbicide, pesticide or sheep dip or any other material is permitted.
- Supplementary feeding sites, temporary silage clamps and the storage of big bale silage or hay are not permitted.
- Scrub management must not be carried out between 1 March and 31 August.

#### Further advice

The annual payment includes an element for routine positive management such as cutting back small areas of scrub in rotation to increase the diversity of scrub. Small quantities of cut gorse may be left on site to rot down. If gorse is cut in large quantities it may only be burnt off site on unimproved or improved grassland. When cutting other scrub species such as blackthorn, hazel or hawthorn the cut stems can be left in habitat piles on site. Noxious weeds such as thistles and ragwort may be controlled with herbicides, applied using a weed wiper or spot sprayer.

#### (iii) Parkland

Parkland is a term used to describe areas of open grassland with widely spaced mature trees within an historic designed landscape. Eligible parkland must be (i) recorded on the Inventory of Historic Parks, Gardens and Demesnes (compiled by the Department of the Environment – Environment and Heritage Service); or (ii) show clear evidence on the ground of a designed landscape being (or having once been) present; or (iii) have historical or documentary for example, Ordnance Survey (OS) map, evidence for an historic designed landscape having been created on the site.

**Aim:** To maintain, enhance and replant areas of parkland through sensitive land management and a programme of replacement tree planting, thereby benefiting the local landscape and associated wildlife.

**Biodiversity objectives:** this option contributes to the Northern Ireland Biodiversity Action Plan targets for lowland wood-pasture and parkland.

#### Management requirements

- Reseeding, ploughing and drainage of existing parkland grassland is not permitted during the period of the agreement unless specifically agreed by DARD.
- Fertilisers, slurry, farmyard manure, sewage sludge, herbicides, lime, insecticides, pesticides, sheep dip, fungicides, or application of any other material, are not permitted within a 10m radius from the edge of the canopy of a parkland tree.
- Parkland must not be used for supplementary feeding sites or for the storage of round bale hay or silage.
- No alteration to, or removal of, existing landscape features (for example, gorse, scrub, bracken, field boundaries) is permitted without the prior written approval of DARD.
- All standard trees planted under the scheme must be staked and protected from grazing.
- No poaching.



Parkland

**Further advice**

Standard trees or whips may be used to establish replacement parkland trees. A farm specific restoration plan, (based on the original design of the historic landscape), will be drawn up by DARD and will include the tree species and number of trees to be planted.

Tree surgery may be necessary to prolong the life of some veteran parkland trees or for Health and Safety reasons, but this should be kept to the minimum (standing dead wood in veteran/old trees and branches is an important habitat for many insects and fungi).

Noxious weeds may be controlled within the 10m radius from the edge of the tree canopy but only applied using a weed wiper or spot sprayer.

**6. Archaeological features**

*Raths are the most common field monument in the countryside*

To date 15,500 historic monuments and archaeological features have been identified in Northern Ireland; all of these are unique and irreplaceable. If an archaeological feature is present, the area around it must be protected from damaging farming practices. This 'protection zone' will normally extend 10m immediately surrounding the feature, but in some cases this may be further – refer to the farm management plan for further information.

**Aim:** to protect and maintain sites which are vulnerable to farming practices by restricting damaging operations and implementing positive management such as scrub control, if required.



*An Ogham stone*

**Biodiversity objectives:** to protect and conserve archaeological features and any associated Priority Species.

**Management requirements**

- Cultivation, ploughing, reseeding, drainage, any ground disturbance or removal of any material is not permitted.
- Fertilisers, slurry, farmyard manure, sewage sludge, herbicides, lime, insecticides, pesticides, sheep dip, fungicides, or application of any other material, are not permitted.
- Archaeological features must not be used for supplementary feeding sites or the storage of any material such as round bale silage or hay.
- Dumping and burning is not permitted.
- Operation of tractors and other agricultural machinery is not permitted.
- New lanes or access routes are not permitted.
- No poaching within the protected area.
- Eroded areas must be repaired by covering with soil and then reseeded.
- Spreading scrub/trees must be controlled by hand cutting.
- Additional specific management requirements, which may be provided by the Environment and Heritage Service, Built Heritage, must be followed.

**Further advice**

Grazing is permitted within the protected area and grass cover must be maintained on and around the archaeological feature. Farm access tracks should, where possible, be re-routed away from archaeological sites. Dead, dying or unstable trees should be cut down before they fall. They should then be cut into pieces and removed from the site for disposal elsewhere. Large tree trunks must not be dragged along the ground in the protected area. Uprooted trees should be cut into pieces and removed from the site. The remaining root plate should then be replaced into the existing root depression. Further information on scrub control is given in Appendix 4.