



Llywodraeth Cymru
Welsh Government

Sustainable Farming Scheme – Optional

Habitat Review: Technical Guidance – Management Actions

August 2026



Contents

Introduction	1
Z101 - Saltmarsh: Enhanced Management.....	2
Z102 - Saltmarsh: enhanced management for redshank	4
Z103 - Saltmarsh: restoration for heavily grazed marshes	6
Z104 - Saltmarsh: enhance management for upper marsh with short turf.....	8
Z105 - Sand dunes: enhanced management	10
Z106 - Coastal grassland: enhanced management.....	13
Z107 - Coastal belt mosaic: enhanced management	16
Z108 - Coastal habitat mosaic: restoration.....	18
Z109 - Coastal grassland: enhanced management for chough.....	21
Z110 - Coastal heathland: enhanced management.....	24
Z111 - Lowland wet heath: enhanced management	26
Z112 - Lowland wet heath: enhanced management (purple moor-grass dominated)	29
Z113 - Lowland dry heath: enhanced management	32
Z114 - Lowland dry heath: enhanced management (western gorse dominated)	35
Z115 - Lowland and coastal heath: restore from grassland	38
Z116 - Lowland marshy grassland: enhanced management	41
Z117 - Wet grassland: enhanced management for breeding waders	44
Z118 - Wet grassland: management for wintering waders and waterfowl	47
Z119 - Lowland bog: enhanced management	50
Z120 - Lowland fen: enhanced management	53
Z121 - Reedbed: enhanced management.....	56
Z122 - Floodplain meadow: enhanced management	58
Z123 – Neutral grassland: hay meadow enhanced management	61
Z124 - Neutral grassland: pasture enhanced management	64
Z125 - Neutral grassland: hay meadow enhanced management with delayed cutting	67
Z126 - Neutral grassland: restoration	70
Z127 - Lowland acid, calcareous and calaminarian grassland: enhanced management	74

Z128 - Limestone pavement: enhanced management	77
Z129 - Upland: habitat mosaic enhanced management	80
Z130 - Traditional orchards: enhanced management	82
Z131 - Hedgerows: enhanced management for brown hairstreak butterfly	86
Z132 - Peatland: restoration, re-introduce grazing	90
Z133 - Wood pasture: enhanced management	93
Z134 - Parkland: enhanced management	95
Z135 - Scrub: enhanced management	98
Z136 - Woodland: enhanced management, stock exclusion	100
Z137 - Woodland: enhanced management, light grazing	102
Z138 - Hedgerows: Enhanced Management	104
Z139 - Highly modified peatland: restoration	108
Z140 - Improved grassland: short sward for geological landform	111
Z142 – Highly modified peatland: enhanced management	113
Z143 - Coastal: allow saline intrusion on improved land	115
Z144 - Coastal: allow saline intrusion on habitat land	117
Z145 - Coastal: restore natural processes on improved land	119
Z146 - Coastal: restore natural processes on habitat land	121
Z147 - River: restore natural processes	123
Z150 - Improved grassland: management for dung invertebrates	125
Z202 - Supplementary action: grazing with heavy stock	127
Z203 - Supplementary action: reduced stocking rate	128
Z204 - Supplementary action: raising water levels on improved land	129
Z205 - Supplementary action: raised water levels on habitat land	131
Z206 - Supplementary action: raised water levels on peatland	133
Z207 - Supplementary action: restrictions on avermectins	134
Z301 - Freshwater: waterside corridor with vegetation management	136
Z302 - Freshwater: waterside corridor creation	139
Z303 - Freshwater: waterside corridor creation with vegetation management	141
Z304 - Freshwater: new pond/scrape creation	144
Z305 - Floodplain meadow: creation on improved land	147
Z306 - Neutral Grassland: creation on improved land	151
Z307 - Saltmarsh: creation	155

Z308 - Woodland: facilitate natural colonisation on improved land	157
Z309 - Woodland: facilitate natural colonisation on habitat land	159
Z310 - Wood pasture: creation on improved land.....	161
Z311 Wood pasture: creation on habitat land	163
Z312 - Parkland: creation	165
Z313 - Traditional orchards: creation on improved land	168
Z314 - Traditional orchards: creation on habitat land	172
Z315 - Wet grassland: creation for wintering waders and waterfowl on improved land	176
Z316 - Wet grassland: creation for wintering waders and waterfowl on improved land	179
Z317 - Reedbed: creation on habitat land	183
Z318 - Reedbed: creation on improved land	186
Z319 - Artificial wetlands: creation on improved land	189
Z320 - Lowland and coastal heath: creation on improved land	191
Z321 - Upland heath: creation on improved land	194
Z322 - Coastal sand dune: creation on improved land	197
Z401 - Arable: nesting plots for Lapwing	200
Z402 - Arable: nesting plots for skylark	202
Z403 - Arable: Mechanical control of cover crops and weeds	204
Z404 - Intensive grassland: allow ryegrass to set seed.....	206
Z406 - Arable: no input grass margin next to an arable crop.....	208
Z408 - Arable: wild bird seed crops	211
Z411 - Arable: no input field grass strips	216
Z413 - Arable: reversion to permanent grassland on land at risk of soil erosion and run-off.....	219
Z416 - Intensive grassland: no-input permanent grassland (whole field)	222
Z417 - Improved grassland: no-input permanent grass buffer.....	224

ISBN – 978-1-80853-257-3

Produced by the Welsh Government

©Crown copyright 2026

Introduction

The following Technical Guidance sets out the requirements of each of the SFS Optional: Habitat Review Management Actions.

These are the requirements that you must follow if any of these Management Actions are included in your Management Plan and Schedule of Works and then implemented via a SFS Optional: Habitat Actions grant award.

The Welsh Government cannot guarantee that the requirements contained within this booklet will not be altered (e.g. as a result of legislative or policy changes). The Welsh Government will publicise any changes and where necessary contact you.

You can view the individual Management Actions by clicking on the title in the list of contents above. Alternatively scroll through the document to view the pages you require.

Z101 - Saltmarsh: Enhanced Management

Description

Coastal saltmarsh requires grazing at appropriate levels to ensure that the saltmarsh is enhanced and restored. Marshes where grazing levels result in significant areas where the sward height is <5 centimetres require a reduction in grazing to enable a mosaic of taller and shorter vegetation, to allow herb species to flower and set seed and to support animal species, including invertebrates.

Where to apply

Apply this action on saltmarsh where enhanced management and restoration is required to increase vegetation heights by reducing grazing.

Saltmarsh which has not been grazed in the long term, >30 years, should generally not be included within this action. However, some sites could be considered if biodiversity would be increased.

Aims

- To achieve a varied sward height by grazing, without allowing extensive areas of very short or tall vegetation.
- To create a range of vegetation heights, which can include both fine mosaics or larger patches of tall/short vegetation, which would help to support numerous flowering herb species and allow native animals (including invertebrates) to thrive.

Management

- Follow the Universal Code.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Between 1st June and 1 October, the upper and mid marsh should each have a mosaic of shorter and taller vegetation.
 - The marsh should have at least 40% of vegetation between 5 centimetres and 15 centimetres tall and at least 30% of vegetation over 15 centimetres tall (excluding rush).
 - At least three positive indicator herbs should be frequent in the sward and able to flower and produce seed.

- Large areas of tightly grazed vegetation less than 5 centimetres tall should cover less than 15% of the saltmarsh.
- Coarse, tall grasses over 30 centimetres in height or dense stands of grasses with a thick layer of 'thatch' (dead grass) should not cover more than 20% of the marsh.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not modify any creeks, pans, hollows or interfere with any natural and dynamic changes such as changes due to storms or shifts in creek patterns.
- Do not create new scrapes or pools on the saltmarsh
- Do not plant trees on the saltmarsh
- Do not cut rushes between 15th March and 15th July or cut or top more than 20% of rush species in any one year
- Do not construct tracks, roads, yards, hardstanding or any new structures on saltmarsh.
- Do not shore-up the creek banks.
- Do not use for off-road non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z102 - Saltmarsh: enhanced management for redshank

Description

Redshank are ground nesting birds which feed and breed on saltmarsh. They require a mosaic of relatively short and taller vegetation to enable them to forage for food and for cover for nesting. The nests of the redshank are particularly vulnerable in the breeding season where livestock is present as the eggs are often trampled by the livestock.

Where to apply

Apply this action to areas of saltmarsh, including upper and high marsh, to create conditions to encourage redshank to breed successfully.

Aims

- To achieve a varied sward height by grazing to create good conditions for redshank.
- To create a mosaic of different sward heights suitable for both nesting and foraging redshank, ideally this would include taller areas of vegetation for nesting with shorter patches to create foraging habitat.
- Coarse/tall grasses with thick layer of 'thatch' (dead grass) should not dominate, neither should large areas of tightly grazed vegetation.

Management Requirements

- Follow the Universal Code
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - The sward height should be between 15-20 centimetres over at least 40% of the upper and high marsh.
 - The sward height should be below 10 centimetres covering at least 30% of the upper and high marsh.

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the high and upper marsh.
- Prevent encroachment of trees, scrub and bracken onto the saltmarsh.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not modify any creeks, pans, hollows or interfere with any natural and dynamic changes such as changes due to storms.
- Do not create new scrapes or pools on the saltmarsh.
- Do not cut rushes between 15 March and 1 August or cut or top more than 30% of rush or weed species in any one year.
- Do not plant any new trees.
- Do not construct tracks, roads, yards, hardstanding or any new structures on saltmarsh, except simple bridges to allow creek crossing.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your advisor.

Z103 - Saltmarsh: restoration for heavily grazed marshes

Description

Coastal saltmarsh requires grazing at appropriate levels to ensure that the saltmarsh is enhanced and restored. Getting the grazing at the right levels will result in improved biodiversity.

Where to apply

Apply this action where the sward height has been low (less than 5 centimetres) over extensive areas over a number of years, particularly during the spring and summer months and into the early autumn.

Aims

- To restore the saltmarsh to achieve a varied sward height and to increase the number of herb species. Over time, saltmarsh herb species will be able to flower and increase in number, distribution and diversity, supporting native animals, including breeding birds and invertebrates.

Management Requirements

- Follow the Universal Code
- Restoration will be achieved by an initial reduction in grazing of up to 2 years to allow the saltmarsh to recover.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Saltmarsh herb species will be able to flower and produce seed. At least three positive indicator herbs will be frequent across the mid and upper marsh.
 - Large continuous areas of tightly grazed vegetation should be absent - less than 5 centimetres in height and covering over 0.5 hectare.
 - Between 1 June and 1 October, the mid and upper marsh should have vegetation greater than 15 centimetres tall and cover at least 50% of the mid and upper marsh (excluding areas of rush) and less than 20% of the vegetation should be below 5 centimetres.

- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not modify any creeks, pans, hollows or interfere with any natural and dynamic changes, such as changes due to storms.
- Do not create new scrapes or pools on the saltmarsh.
- Do not cut rushes between 15 March and 15 July or cut or top more than 30% of rush or weed species in any one year.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land, except simple bridges to allow creek crossing.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the saltmarsh.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z104 - Saltmarsh: enhance management for upper marsh with short turf

Description

Where saltmarsh is not grazed or is undergrazed, often the upper marsh will become rank with grasses which smother smaller plants, preventing them from setting seed. The upper marsh forms the highest reaches of the saltmarsh where the tidal inundation occurs only on spring tides. Alongside more common flowering plants of the upper marsh, there are a number of scarce herbs which require areas of shorter grasses and areas of bare ground to thrive.

Where to apply

Apply this action in areas of upper marsh where scarce upper marsh plants can be found or have been previously recorded.

Aims

- To achieve a predominantly short sward to benefit a range of saltmarsh plants of the upper (drier) saltmarsh which require shorter sward heights.
- Bare ground created by poaching is desirable, creating a short sward in mosaic with some taller vegetation.
- From the spring to early autumn, a range of saltmarsh plant species should be present and able to flower and produce seed.

Management Requirements

- Follow The Universal Code.
- Maintain the saltmarsh by extensive grazing with livestock.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Within the summer and early autumn at least 3 positive indicator herbs should be frequent in the sward and able to flower and produce seed.

- Areas of bare ground created by poaching should be present but should cover no more than 10% of total area of the upper marsh.
 - Coarse/tall or dense vegetation with a thick layer of 'thatch' (dead grass) should be present in less than 20% of the upper marsh.
 - Between 1 May to 1 October, 60% of the upper marsh should be a mix of sward heights between 5 and 20 centimetres tall. Between October and April, the sward height should be reduced to maximum 5 centimetres in height over 60% of the upper marsh.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not modify any creeks, pans, hollows or interfere with any natural and dynamic changes such as changes due to storms.
- Do not create new scrapes or pools on the saltmarsh.
- Do not cut rushes between 15 March and 15 July or cut or top more than 30% of rush or weed species in any one year.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land, except simple bridges to allow creek crossing.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z105 - Sand dunes: enhanced management

Description

Sand dunes: enhanced management is required to manage and enhance the sand dune sward by creating variation in sward height and exposing patches of bare sand. This structural diversity is essential, not only for sand dune plant communities, but also for rare invertebrates that depend on bare sand and early successional sand dune vegetation. Managing scrub, trees and bracken is important to prevent encroachment on sand dune habitats and the loss of valuable biodiversity.

Where to apply

This action should be applied on sand dune habitat that has a wide range of flowering plants on sandy soils. It should be applied to sand dune systems that require continuation of current management and those in need of restoration.

Aims

- To ensure a mosaic of sand dune habitats, including shifting dunes, stable, but open, dunes, young dune slacks (if hydrological conditions allow) and fixed dune grasslands.
- To reduce nutrient levels in the sand dune vegetation types whilst maintaining dynamic processes. In large dune systems (if hydrological conditions allow) there will be a gradient between wet and dry dune vegetation types. Bare sand will be present, and the grassland swards will be species rich short turves (2-10 centimetres in height) with native plant species flowering and fruiting frequently. Agricultural species such as ryegrass are absent and large bulky grasses are not allowed to become dominant.
- To prevent bracken, scrub and trees from encroaching across the sand dune system.

Management

- Follow the Universal Code.

Option 1: Grazed Sand Dunes

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:

- Dune grassland will comprise a mosaic of structural heights between 2 and 10 centimetres tall.
 - In wet hollows (dune slacks) grasses will comprise no more than 30% of the sward.
 - Species such as bird's-foot-trefoil, restharrow, yellow rattle, water mint and orchids are frequent and able to flower and produce seed.
 - Coarse and tall grasses or stands of grasses with thick layers of 'thatch' (dead grass) (excluding marram grass) are not dominant.
- Allow natural and dynamic coastal changes, such as changes due to storms or windblow.
 - Prevent encroachment of trees, scrub and bracken onto the dunes.
 - Keep an Activity Diary and make it available as required.

Option 2: Ungrazed Sand Dunes

- Where grazing is not possible, agree a plan with your FSO to use mowing as an alternative to grazing (capital works may be available to support this work). All cut material should be removed off-site.
- Allow natural and dynamic coastal changes, such as changes due to storms or windblow.
- Prevent encroachment of trees, scrub and bracken onto the dunes.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not roll or harrow at any time of the year.
- Do not cut or top rushes or other undesirable vegetation species.
- Do not allow the area to be poached (gateways, and watering areas are acceptable provided that poached and bare areas are less than 5% cover).
- Do not plant trees or shrubs within sand dune habitat.

- Do not control or attempt to control rabbits within sand dunes.
- Do not remove sand or any other aggregate material from sand dunes.
- Do not carry out dune remobilisation work (including re-profiling).
- Do not construct tracks, roads, yards, hard standings or any new structures on habitat land.
- Do not use the dunes for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat. Capital works may be required where there is scrub (for example, hawthorn, blackthorn, bramble) spreading on the sand dunes.

Z106 - Coastal grassland: enhanced management

Description

Coastal grassland and coastal heathland requires grazing at appropriate levels to ensure that coastal grassland is enhanced or restored. Control of scrub and bracken is important to ensure encroachment onto coastal grassland does not occur.

Where to apply

Apply this action within coastal grassland influenced by salt spray and requiring the relevant management to achieve the aims below, as appropriate.

Aims

- To achieve sward of varying height and for herbs to be able to flower and set seed.
- To maintain the coastal grassland as permanent pasture, retaining natural landscape features such as limited areas of existing scrub and anthills.
- To achieve a diverse sward where a variety of native plant species (including at least three positive indicator species) are frequent, able to flower and produce seed, and native animals, including bees, butterflies and other invertebrates can thrive. In the most exposed areas, the coastal grassland may be naturally short.
- To ensure agricultural species, such as ryegrass are absent or at low cover.
- To ensure large bulky grasses are not abundant, and bracken, bramble, scrub and trees do not encroach across the grassland.

Management

- Follow the Universal Code.
- Manage the coastal grassland by extensive grazing with livestock and reduce or exclude grazing when necessary.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around

gateways, feeding and watering areas is acceptable provided that poached and bare ground make up less than 5% cover across the coastal grassland area.

- Graze between four and nine calendar months in a year.
- Allow a minimum of 4 to a maximum of 6 weeks continuous period of no grazing sometime between 1st April and 31st August.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - 75% of the grassland area is above 5 centimetres in height between 1st May and 30th September. Allowance will be made where vegetation height is lower than 5 centimetres in height due the exposed nature of the site.
 - At least 75% of the grassland is below 20 centimetres in height.
 - Dead plant material (leaf litter) is prevented from forming large patches and keep to less than 10% cover across the grassland area.
 - Tress, scrub or bracken encroachment is prevented from spreading beyond what is already present.
- Prevent coarse grasses from becoming dominant, however patches covering no more than 5% of the grassland may be left to support invertebrates.
- Keep an Activity Diary and make it available as required. Including grazing levels and actions such as weed control and capital works.

Restrictions

- Do not apply any inorganic or organic fertilisers such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal.
- Do not apply lime to coastal grassland or heath.
- Do not top more than 30% of coarse grasses, rush or weed species in any one year.
- Do not clear out existing ditches without prior approval from your FSO.
- Do not plant trees or shrubs on the coastal grassland.

- Do not use the coastal grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your farm advisor that are necessary to manage and/or restore the habitat.

Z107 - Coastal belt mosaic: enhanced management

Description

The mosaic of habitats primarily coastal grassland and coastal heathland requires grazing at appropriate levels to ensure the heather and herb species are able to flower and set seed and that the mosaic of habitats are enhanced. Control of scrub and bracken is important to ensure encroachment onto coastal grassland and heathland does not occur.

Where to apply

Apply this action within the coastal belt where there is a mosaic of habitat types requiring the relevant management.

Aims

- To bring the coastal belt into an enhanced condition, where the coastal margins (primarily located on cliff tops and coastal slopes) should be made up mainly of coastal heathland and coastal grassland alongside mosaics of other habitat types including dry and wet heath and limited areas of scrub and bracken.
- To produce a range of different sward heights and achieve flower rich habitats and include small areas of bare ground which will help support invertebrates.
- To manage scrub and bracken where required, however, the aim is not to remove scrub and bracken entirely, but to prevent spread into other habitat types. Well-established stands of scrub, which can be important for invertebrates and birds, should generally be maintained, but may need to be reduced to restore other habitats such as coastal grassland. Seek specialist advice relating to prioritising management where outcomes cannot be met for all habitat types.

Management

- Follow the Universal Code.
- Maintain the coastal belt habitats to achieve the relevant enhanced management aims.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO), which could include the reintroduction of grazing where appropriate.

- Prevent encroachment of trees, scrub and bracken onto the grassland or heathland.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Undertake clearance of scrub, bracken or bramble where this is spreading into coastal heathland, coastal grassland and or other unimproved grassland.
- Keep an Activity Diary and make it available as required. Including grazing levels and options such as weed control and capital works.

Restrictions

- Do not burn areas of coastal heath.
- Do not top more than 30% of coarse grasses, rush or weed species in any one year.
- Do not plant trees or shrubs on coastal or other unimproved grassland or heathland.
- Do not roll or harrow at any time of year.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z108 - Coastal habitat mosaic: restoration

Description

This action will provide management to improve the condition of coastal habitats in areas with a mix of different types. The coastal belt is often under-grazed or not grazed at all which has led to bracken, scrub, coarse grasses and bramble invading. In some places, over grazing, agricultural improvement or damage by burning is also causing impacts such as declines in plant diversity.

Where to apply

Use this action where there are mosaics of different habitats within the coastal belt that need to be managed as one unit. Habitats likely to be included are coastal grassland, coastal heathland plus lowland unimproved grasslands, lowland heathland, scrub, bracken, small areas of wetland and rocky outcrops.

Use this action rather than enhanced management where habitats have declined in condition due to under-grazing, abandonment of grazing or have been heavily grazed or burnt.

Restore the coastal belt where: it has been under-grazed which has led to:

- Invasion of coarse grasses with or grassland with a thick layer of thatch has developed leading to loss of flowering herb species
- Expansion wide scale spread of scrub including European gorse and bracken, or bramble,
- Where western gorse has become dominant within heathland or heathland which has become uniformly dense.

or

Where the coastal belt has been heavily grazed or burnt and has led to:

- A uniform very short sward, where herbs are unable to flower and set seed or
- Where there are significant areas of bare ground >10% overall, or
- Where areas of coastal heathland, coastal grassland and other habitats have been reduced.

A period of restoration of 5 years should be carried out before switching to the enhanced management action. Specialist advice is recommended.

Aims

To restore a variety of habitats within the coastal belt. To achieve mosaics of species-rich habitat of taller and shorter vegetation including small areas of bare ground or low open areas supporting mosses and lichens.

Management

- Follow the Universal Code
- Agree a restoration plan to restore coastal grassland, other semi natural grasslands and heath.
- Adhere to the grazing plan agreed with your Field Support Officer.
- Prevent encroachment of trees, scrub and bracken onto the grassland or heathland.
- Prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Keep an Activity Diary and make it available as required, including grazing levels and options, such as weed control and capital works.

Restrictions

Do not:

- Permit scrub, brambles, bracken or trees to spread
- Allow the area to be poached (gateways, feeding and watering areas may be acceptable provided that poached and bare areas are less than 5% cover)
- Burn areas of coastal heath
- Construct tracks, roads, yards, hardstanding or any new structures on habitat land.

Capital Works

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat. These could include items such as:

- Scrub clearance
- Sward enhancement using native provenance seed

Capital Works which could contribute to enhance the habitat:

- Specialist consultation
- Sward enhancement using local provenance seed (grassland or heathland)
- Stock handling pen
- Stone faced earth banks – repairing and restoring
- Stock handling/control facilities
- Water troughs
- Heather cutting and removal
- Bracken Control - Mechanical Two Cuts or rolling /Yr
- Bramble / Scrub Control - Hand Knapsack Spraying
- Scrub/tree Clearance – hand
- Scrub/tree Clearance – mechanical
- Sward Enhancement Using local provenance seed (grassland or heathland)
- Terrestrial INNS capital works (numerous)
- Supplementary action: grazing management with heavy stock
- Supplementary action: reduced stocking
- Supplementary action: restrictions on avermectins

Z109 - Coastal grassland: enhanced management for chough

Description

This action provides the optimum grassland conditions for chough to feed. Chough require very short grassland that can be easily probed by their beaks when foraging for invertebrates. This is particularly important during the breeding season when they need abundant food for chicks in areas close to their nesting sites. These conditions will be achieved by tightly grazing the coastal grassland.

Where to apply

This action should be applied on coastal grassland identified by your Field Support Officer (FSO) as either currently supporting breeding or feeding chough or as having a high potential to support chough.

Aims

- To provide chough foraging areas within coastal grassland.
- To create a mosaic of short swards during the breeding season and winter periods.
- To provide areas of bare soil and a regular supply of dung.
- To maintain hedge and earth banks (cloddiau) to support foraging chough.

Management Requirements

- Follow the Universal Code.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - At least 75% of the area of the sward is short (3 centimetres or less).
 - Small bare patches or areas of mosses and lichen should cover at least 5% of the grassland area but no greater than 10%.
 - Prevent encroachment of trees, scrub and bracken on to the grassland.

- Graze continuously between 1 April and 1 October. If grazing breaks are essential, modify the intensity or duration of the grazing to ensure swards of 3 centimetres or less are maintained.
- Maintain earth/stone banks (cloddiau)
- In agreement with your FSO, identify the need for any single line fencing required on the tops of earth/ stone banks to allow close grazing and trampling. This enables chough to feed on the banks.
- Ensure that grazing livestock have not been treated with products containing avermectin four weeks prior to or during the period they are grazing the area covered by this action.
- Keep an Activity Diary each year and make it available as required. Include grazing levels and actions such as weed control and capital works.

Management Restrictions

- Do not apply any insecticides, fungicides or molluscicides.
- Do not plant any new trees.
- Do not burn areas of coastal heath.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not cultivate or reseed grassland.
- Do not roll or harrow the grassland between 15 June to 15 August. Light harrowing, to break up deep leaf litter or control bracken between 15 August and 15 June is acceptable.
- Do not apply fertilizer to habitat land.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land.
- Do not use non-agricultural vehicles or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake the capital works agreed with your FSO that are necessary to manage and/or restore the coastal grassland for the benefit of chough. These could include actions such as:

- creating or restoring cloddiau
- controlling bracken

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z110 - Coastal heathland: enhanced management

Description

Coastal heathland requires grazing at appropriate levels to ensure the heather and herb species are able to flower and set seed. Control of scrub and bracken is important to ensure encroachment onto coastal grassland and heathland does not occur.

Where to apply

This action should be applied on heathland close to the sea where there is maritime influence from sea spray and coastal plants such as spring squill, sea plantain and thrift. The effects of the sea spray can go up to 500 metres inland, but is often much less, particularly in sheltered areas.

Aims

To manage the coastal heath to maintain and restore dwarf shrub cover (heather species and low growing gorse) to allow the heathland plants to flower and set seed.

To develop and/or maintain a mosaic of different age and height structures across the landscape including open areas and low patches of bare ground where native animals (including invertebrates) can thrive.

Management Requirements

- Follow the Universal Code
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Between 25 and 90% cover of dwarf shrubs with open patches of low grasses less than 10 centimetres in height.
 - The heath should compose of less than 50% western gorse.
 - Bare ground and mixed patches of bare ground with mosses and lichens should make up between 1% and 10% of the cover of the heathland.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable, provided that poached

bare ground does not form large patches and makes up less than 5% cover across the habitat area.

- Use any cutting plan agreed with your Field Support Officer to manage patches of heath where there are extensive areas of dense or tall heathland.
- Prevent encroachment of trees, scrub and bracken onto the heathland.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not burn areas of coastal heath.
- Do not roll or chain-harrow unless as part of a programme of bracken control.
- Do not top more than 30% of coarse grasses, rush or weed species in any one year.
- Do not clear out existing ditches without prior approval from the Field Support Officer.
- Do not plant trees or shrubs on the coastal heathland.
- Do not use the coastal heathland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat. These could include bracken and scrub control.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z111 - Lowland wet heath: enhanced management

Description

Lowland wet heath: enhanced management is required to manage and enhance the open heathland landscape by creating a sward dominated by dwarf shrubs such as heather, cross-leaved heath and bilberry, together with a range of characteristic herbs, mosses and lichens. This should lead to a habitat where frequent patches of open ground or runnels of wet ground occur, provides space for various herbs and opportunities for foraging birds, reptiles and predatory invertebrates.

Where to apply

This action should be applied to manage and/or restore wet heathland that has less than 60% cover of purple moor-grass and that is located below the upper limit of enclosure.

This action should not be applied to heathland that is close to the coast and contains maritime plants such as spring squill or thrift, this type of heathland should be managed by the coastal heathland action.

Aims

- To enhance the open heathland landscape by encouraging a sward dominated by dwarf shrubs such as heather, cross-leaved heath and bilberry together with a range of characteristic herbs, mosses and lichens.
- To improve the quality of the heath so as to create an open and varied structure and where heather and other dwarf shrubs cover 50% or more of the ground. The dwarf shrubs should occur as both young (seedling or resprouting) and mature stands.
- To create frequent patches of open ground or runnels of wet ground, creating space for various herbs and providing opportunities for foraging birds, reptiles and predatory invertebrates.
- To discourage the spread of plants favoured by heavy grazing or frequent burning, especially purple moor-grass.
- To prevent extensive encroachment by scrub or trees, but maintain small-scale features including anthills, mature native trees, occasional scrub and small areas

of bare ground. There may be small patches of scrub and scattered trees, but these should be less than 10% of the area.

- To reverse any effects of under grazing and restore the typical species of heathland by controlling encroaching scrub.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Stocking rates will be set according to the requirements of the individual site, based on the following ranges:

	Maximum LSU/ha	Minimum LSU/ha
1 April - 30 June	0.3	0.2
1 July - 30 September	0.2	0.1
1 October - 31 March	0.05	0

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- To prevent overgrazing, remove stock during prolonged periods of dry weather if conditions are impacting plant growth.
- Prevent encroachment of trees, scrub and bracken onto the heath habitat.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not burn wet heath.

- Do not cut or mow any part of the lowland heath more than once every 15 years.
- Do not plant trees.
- Do not clear out existing ditches.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not roll or chain-harrow at any time of year.
- Do not use for off-road non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the heathland. These capital works could include:

- Agree and implement any grip blocking required to restore hydrological integrity (especially where grips / drains intercept water across slopes).
- Agree and implement a programme of mowing and removal where appropriate to remove excess herbage and facilitate grazing.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z112 - Lowland wet heath: enhanced management (purple moor-grass dominated)

Description

Lowland wet heath: enhanced management, purple moor-grass dominated is required to restore the wet heathland landscape by creating a sward dominated by dwarf shrubs, such as heather, cross-leaved heath and bilberry, together with a range of characteristic herbs, mosses and lichens. This should lead to a habitat with an open and varied structure, where the dominance of purple moor-grass is reduced and where heather and other dwarf shrubs cover 50% or more of the ground.

Where to apply

This action should be applied to manage and/or restore wet heathland that has more than 60% cover of purple moor-grass and that is located below the upper limit of enclosure.

This action should not be applied to heathland that is close to the coast and contains maritime plants such as spring squill or thrift, this type of heathland should be managed by the coastal heathland action.

Aims

- To enhance the open heathland landscape by encouraging a sward dominated by dwarf shrubs such as heather, cross-leaved heath and bilberry, together with a range of characteristic herbs, mosses and lichens.
- To improve the quality of the heath so as to create an open and varied structure where the dominance of purple moor-grass is reduced and where heather and other dwarf shrubs cover 50% or more of the ground. The dwarf shrubs should occur as both young (seedling or resprouting) and mature stands.
- To create frequent patches of open ground or runnels of wet ground, creating space for various herbs and providing opportunities for foraging birds, reptiles and predatory invertebrates.
- To discourage the spread of plants favoured by heavy grazing or frequent burning, especially purple moor-grass.
- To prevent extensive encroachment by scrub or trees, but maintain small-scale features including anthills, mature native trees, occasional scrub and small areas

of bare ground. There may be small patches of scrub and scattered trees, but these should be less than 10% of the area.

- To reverse any effects of under grazing and restore the typical species of heathland by controlling encroaching scrub.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Stocking rates will be set according to the requirements of the individual site, based on the following ranges:

	Maximum LSU/ha	Minimum LSU/ha
1 April - 30 June	0.4	0.3
1 July - 30 September	0.2	0.1
1 October - 31 March	0.1	0

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- To prevent overgrazing, remove stock during prolonged periods of dry weather if conditions are impacting plant growth.
- Prevent encroachment of trees, scrub and bracken onto the heath habitat.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not burn wet heath.
- Do not cut or mow any part of the lowland heath more than once every 15 years.
- Do not plant trees.
- Do not clear out existing ditches.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not roll or chain-harrow at any time of year.
- Do not use for off-road non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the heathland. These capital works could include:

- Agree and implement any grip blocking required to restore hydrological integrity (especially where grips / drains intercept water across slopes).
- Agree and implement a programme of mowing and removal where appropriate to remove excess herbage and facilitate grazing.
- Agree and implement fire control or prevention measures.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z113 - Lowland dry heath: enhanced management

Description

This action is required to manage and enhance the heathland landscape by creating an open and varied structure in which heather and western gorse dominate over 50% or more of the ground. This should lead to a habitat where dwarf shrubs should occur as both young (seedling or resprouting) and mature stands and there should be frequent patches of open ground creating space for various herbs and providing opportunities for foraging birds, reptiles and predatory invertebrates.

Where to apply

This action should be applied to manage and/or restore dry heathland that has less than 60% cover of western gorse and that is located below the upper limit of enclosure.

This action should not be applied to heathland that is close to the coast and contains maritime plants such as spring squill or thrift; this type of heathland should be managed by the coastal heathland action.

Aims

- To encourage a sward dominated by dwarf shrubs, such as heather, cross-leaved heath and bilberry, together with a range of characteristic herbs, mosses and lichens.
- To improve the quality of the heath so as to create an open and varied structure in which heather and western gorse dominate over 50% or more of the ground. The dwarf shrubs should occur as both young (seedling or resprouting) and mature stands.
- To provide frequent small patches of open ground, creating space for various herbs and providing opportunities for foraging birds, reptiles and predatory invertebrates.
- To discourage the spread of plants favoured by heavy grazing or frequent burning, especially mat-grass, western gorse, wavy hair grass and bracken.
- To prevent extensive encroachment by scrub or trees, but maintain small-scale features including anthills, mature native trees, occasional scrub and small

areas of bare ground. There may be small patches of scrub and scattered trees, but these should be less than 10% of the area.

- To reverse any effects of under grazing and restore the typical species of heathland by controlling encroaching scrub, bramble and bracken growth.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Stocking rates will be set according to the requirements of the individual site based on the following ranges:

	Maximum	Minimum
1 April - 30 June	0.60 LSU/ha	0.20 LSU/ha
1 July - 30 September	0.30 LSU/ha	0.10 LSU/ha
1 October - 31 March	0.05 LSU/ha	0.00 LSU/ha

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- To prevent overgrazing, remove stock during prolonged periods of dry weather if conditions are impacting plant growth.
- Where rotational burning is planned management, agree a Burning Management Plan with your FSO, in accordance with the Heather and Grass Burning Regulation 2008 and Heather and Grass Burning Code 2008.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.
- Prevent encroachment of trees, scrub and bracken onto the grassland.

Restrictions

- Do not burn any part of the lowland heath more than once every 12 years.
- Do not cut or mow any part of the lowland heath more than once every 12 years, apart from to control injurious weed species. Any topping should be recorded in your Activity Diary.
- Do not plant trees.
- Do not burn areas of flush or wet heath.
- Do not clear out existing ditches.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not roll or chain-harrow at any time of year.
- Do not use for non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the heathland. In most cases the capital works will include either a burning or mowing plan.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z114 - Lowland dry heath: enhanced management (western gorse dominated)

Description

Lowland Dry Heath Enhanced Management – western gorse dominated is required to reverse the effects of any under or over grazing and restore the typical species of heathland by controlling encroaching scrub, bramble and bracken growth and reducing the dominance of western gorse.

Where to apply

This action should be applied to manage and/or restore dry heathland that has more than 60% cover of western gorse and that is located below the upper limit of enclosure.

This action should not be applied to heathland that is close to the coast and contains maritime plants such as spring squill or thrift, this type of heathland should be managed by the coastal heathland action.

Aims

- To enhance the heathland landscape by encouraging a sward dominated by dwarf shrubs such as heather, cross-leaved heath and bilberry together with a range of characteristic herbs, mosses and lichens.
- To improve the quality of the heath so as to create an open and varied structure in which western gorse does not dominate and where heather and western gorse cover over 50% or more of the ground. The dwarf shrubs should occur as both young (seedling or resprouting) and mature stands.
- To create frequent patches of open ground creating space for various herbs and providing opportunities for foraging birds, reptiles and predatory invertebrates.
- To discourage the spread of plants favoured by heavy grazing or frequent burning, especially mat-grass, western gorse, wavy hair-grass and bracken.
- To prevent extensive encroachment by scrub or trees, but maintain small-scale features including anthills, mature native trees, occasional scrub and small areas of bare ground. There may be small patches of scrub and scattered trees, but these should be less than 10% of the area.

- To restore the typical species of heathland by controlling encroaching scrub, bramble and bracken growth.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Stocking rates will be set according to the requirements of the individual site based on the following ranges:

	Maximum	Minimum
1 April - 30 June	0.6 LSU/ha	0.4 LSU/ha
1 July - 30 September	0.3 LSU/ha	0.2 LSU/ha
1 October - 31 March	0.05 LSU/ha	0 LSU/ha

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- To prevent overgrazing, remove stock during prolonged periods of dry weather if conditions are impacting plant growth.
- Prevent encroachment of trees, scrub and bracken.
- Where rotational burning is planned management, agree a Burning Management Plan with your FSO, in accordance with the Heather and Grass Burning Regulation 2008 and Heather and Grass Burning Code 2008.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not burn any part of the lowland heath more than once every 12 years.

- Do not cut or mow any part of the lowland heath more than once every 12 years, apart from to control injurious weed species. Any topping should be recorded in your Activity Diary.
- Do not plant trees.
- Do not burn areas of flush or wet heath.
- Do not clear out existing ditches.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not roll or chain-harrow at any time of year.
- Do not use for non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the heathland. In most cases the capital works will include either a burning or mowing programme.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z115 - Lowland and coastal heath: restore from grassland

Description

Lowland and coastal heathlands provide a wide range of ecosystem services, including habitat for pollinators and birds, and a store of soil carbon.

Heathland habitats can be restored from grassland, allowing more heather (and other similar dwarf shrubs) to develop and spread, often where they are close to areas of remaining heath. Restoration requires opportunities for heathers to establish, along with ensuring low enough levels of grazing, particularly in winter months, so heathers can develop into small shrubs.

Where to apply

This action should be applied on grassland in which dwarf shrubs (such as heather, bell heather, western gorse) comprise less than 25% of the cover but are present in the site or immediately adjacent.

It is important that sites are evaluated for the significance of any grassland interest before considering this action. This action is most likely to be appropriate where there is abundant acid grassland of low botanical interest.

Aims

- To restore a heathland habitat (where over-grazing or over-frequent burning have impoverished the sward), in which heather in particular (along with bell heather and western gorse) dominate over 25% or more of the ground, aiming for over 50% cover.
- The priority aim of this action is the recovery of dwarf shrub cover and structures. But longer term it is desirable to develop varied heathland structures, with some taller dwarf shrubs as well as patches of open ground creating space for various herbs and opportunities for foraging birds, reptiles and invertebrates.
- There may be small patches of scrub and scattered trees, but the vegetation on the ground is not substantially influenced by shade and associated capital works may be required to ensure this.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Use the grazing plan agreed with your Field Support Officer as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Increases in the cover of heather and other dwarf shrubs (including bell heather, bilberry and western gorse) to at least 25% after 5 years, with an aim for 50% cover, where achievable.
 - Increases in the structure/height of heather and other dwarf shrubs (including bell heather, bilberry and western gorse) with a proportion of plants reaching at least 15-40 centimetres height after 5 years.
 - Heather and dwarf shrubs are not heavily browsed, by not grazing livestock in winter months (October to March), or during other times when grass and plant growth is very limited (potentially including summer drought).
 - Grasses are not dense and dominant and dead, or ungrazed plant material does not smother large patches at the end of the growing season (autumn).
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- Prevent encroachment of trees, scrub and bracken onto the habitat.
- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.
- Do not permit scrub, brambles, bracken or trees to spread.
- Do not burn any vegetation.

- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land.
- Do not use the habitat for non-agricultural vehicle activities or as a track.
- Do not roll or chain-harrow.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z116 - Lowland marshy grassland: enhanced management

Description

Lowland marshy grassland requires grazing to prevent over-growth of tussocky grasses and rushes, and succession to scrub or woodland. It provides a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and a supply of sustainably produced meat. In river catchments, storage of water within the habitat helps to prevent flooding downstream, and forage supply is maintained during drought conditions.

Where to apply

This action is aimed at managing or enhancing lowland marshy grassland that is rich in plant species, including marshland grasses, sedges and flowering herbs.

Aims

- A species-rich marshy grassland with a varied sward height managed as pasture, where a variety of native marshland plant species are frequent and able to flower and produce seed, and native animals, including bumblebees, butterflies such as marsh fritillary and other invertebrates, can thrive.
- At least three positive indicator plant species are frequent.
- Rushes and purple moor-grass are, together, less than 80% cover, and soil nutrient-loving species such as Yorkshire fog and creeping buttercup are absent or at low cover.
- Scrub and trees do not encroach across the grassland.

Management

- Follow the Universal Code.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - A varied sward height where, during the summer period (1st June to 30th August), at least 75% of the grassland (excluding tall rushes) is between 10 centimetres and 50 centimetres.

- Dead plant material (leaf litter) is prevented from forming large patches and kept to less than 10% cover across the grassland area.
- Encroachment of trees, scrub and bracken is prevented onto the grassland.
- Where managed as pasture, up to 30% of the area of marshy grassland may be topped in any one year after 16th July, for example where the sward has become overgrown. The cut material must be removed from the grassland area.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Keep an Activity Diary each year and make it available as required.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground makes up less than 5% cover across the grassland area.
- Hay meadow management can be used as an alternative to pasture – the hay should be cut between 7th July and 31st August and the cut material removed from the grassland area. The aftermath growth should be grazed, so that at least 75% of the grassland (excluding tall rushes) is between 10 centimetres. and 50 centimetres or cut a second time. Between 5% and 10% of the meadow should be left uncut each year to benefit invertebrates and the uncut portion rotated if cutting every year.

Restrictions

- Do not roll or chain-harrow.
- Do not apply lime or a liming agent.
- Do not cut or top more than 30% of rushes or weed species in any one year.
- Do not cut/top or manage for hay areas supporting marsh fritillary butterfly identified by your FSO.
- Do not create new drainage ditches or deepen existing ditches.
- Do not plant trees or shrubs on the marshy grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.

- Do not supplementary feed, apart from in in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z117 - Wet grassland: enhanced management for breeding waders

Description

This action will provide wet grassland habitat in the lowlands for breeding waders, such as curlew, redshank, oystercatcher, lapwing and snipe, and may be used during the winter by a wider range of wading birds. The area will provide nesting and feeding habitat to allow waders to successfully breed.

Where to apply

This action should be applied:

- On wet grassland in the lowlands, identified by your Field Support Officer (FSO) as either currently supporting breeding waders or as having a high potential to support breeding waders.
- On suitable land which includes coastal grazing marsh, marshy grassland, wet semi-improved grassland and wet improved grassland.

Aims

- To have well-established swards, with permanent scrapes or wet areas throughout the winter, spring and early summer to aid feeding for waders and their chicks.
- To maintain the correct sward conditions for the target wader species during the spring and early summer, as per the grazing plan agreed with your FSO.
- Waders will be able to nest undisturbed.
- To ensure that soils are wet and/or there are areas of surface water and bare, wet mud during the breeding season for waders to feed.
- to provide important nesting and chick rearing habitats, with areas of short sward and the edges of wet features for feeding, along with longer, tussocky grasses and rushes for nesting.
- To provide connectivity of breeding wader habitats.

Management

- Follow the Universal Code.

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - During the breeding season (1 April to 15 July).
 - A grassland mosaic with 20-50% of the area as short sward (less than 5 centimetres) and 10-30% as taller vegetation and tussocks (greater than 10 centimetres).
 - A minimum of 50% of wet edges, such as ponds, scrapes and ditches should be exposed as water/mud interface to allow chicks access to wet features to forage successfully.
- Adhere to the maximum stocking rates during the nesting season (1 April to 30 June) to reduce the risk of nest trampling and nest predation.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching of the grasslands around gateways, feeding and watering areas is acceptable provided that poached and bare ground make up less than 5% cover across the grassland area.
- Maintain wet features such as shallow sloping scrapes and pools to provide muddy areas along their edges to feed breeding waders and their chicks.
- Where it is possible to regulate water levels, hold high ditch water levels to maintain wet features and muddy edges to 1 June.
- With agreement from your FSO, maintain adjacent hedges at less than 2 metres in height.
- Actively manage dense areas of rushes by topping, or cutting and bailing, so that they cover no more than 30% of the grassland area.
- Keep an Activity Diary each year and make it available as required. Include grazing levels and actions such as weed control and capital works.
- Prevent encroachment of trees, scrub and bracken onto the grassland.

Restrictions

- Do not undertake mechanised field operation activities that may disturb breeding waders or destroy their nest, eggs or chicks between the 1 April and the 15 July.
- Do not clear out existing ditches, drains or wet features without prior approval from the FSO.
- Do not plant any trees.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake the capital works agreed with your FSO as necessary to manage and/or restore the wet grassland for the benefit of breeding waders. These could include actions such as:

- Creating new scrapes
- Managing gutters/foot drains

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z118 - Wet grassland: management for wintering waders and waterfowl

Description

Wet grassland provides excellent habitat for wintering waders, such as lapwing, snipe, and curlew, due to the large number of invertebrates present in soft damp soils. Wet grassland is also used extensively by wintering waterfowl. Wintering waders and waterfowl use wet grassland in different ways; for example, curlew use their long beaks to probe for invertebrates underground, while lapwing catch insects and other invertebrates in or at the edges of standing water and geese and ducks graze grass and feed on seeds dislodged by the water. Areas of standing water can also provide waders and waterfowl with areas for roosting that are safer from predators.

Where to apply

This action should be applied on wet grassland which already supports wintering waders and waterfowl and areas close to sites that already support wintering waders and waterfowl (e.g. next to or in SSSIs designated for winter wader and/or waterfowl).

Suitable land includes coastal grazing marsh, marshy grassland, wet semi-improved grassland and wet improved grassland. Managing wet grassland works particularly well on large areas of open land (e.g. more than 10 hectares) and areas with few trees or hedgerows (2 metres or less in height)

It is best to avoid sites with an unreliable water supply and/or sites with botanical interest that could be damaged by hydrological changes.

Aims

- To provide a diverse range of suitable wet grassland feeding and roosting habitats for wintering waders and waterfowl during the autumn and winter months by maintaining:
 - wet areas, including standing water, and bare and muddy areas.
 - a varied sward height and structure for wintering waders and waterfowl.
 - appropriate rush cover for the wintering waders and waterfowl (no more than 30% cover)

Management Requirements

- Follow the Universal Code.

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - To provide a varied sward across the grassland by grazing, cutting or a combination of both, where at least 70% of the sward is between 5 and 20 centimetres in height by autumn (1 November) (excluding areas of rush).
 - To help manage rushes by grazing the grassland before winter by cutting or topping between 1 August and 31 October, especially where grazing has not removed the season's grass growth, or cutting is needed.
 - To keep vegetation around scrapes and gutters short with some taller tussocks of vegetation.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching of the grasslands around gateways, feeding and watering areas is acceptable provided that poached and bare ground make up less than 5% cover across the grassland area.
- Maintain or restore the appropriate hydrology and provide wet conditions for wintering waders and waterfowl to feed and roost.
- Ensure there are areas of standing water and wet features during autumn and winter. Ideally with a range of depths from 1 to 30 centimetres (can be up to 50 centimetres on larger sites) covering 5% to 30% of the area.
- Maintain wet features, including gutters and scrapes, to provide muddy areas for waders and waterfowl to feed.
- Actively manage dense areas of rushes by topping, or cutting and baling, so that they cover no more than 30% of the grassland area.
- Where possible, remove plant cuttings by gathering or baling to prevent build-up of litter and nutrients, particularly on areas of species-rich grassland.

- Keep an Activity Diary and make it available as required.

Management Restrictions

- Avoid recreational activities between 1 November and 28 February.
- Avoid use of machinery on areas of wet grassland between 1 November and 28 February.
- Do not release introduced waterfowl within your site.
- Do not provide feed to attract waterfowl to your site.
- Do not plant any trees.
- Do not construct tracks, roads, yards, hardstanding or any new structures on areas managed as wet grassland for wintering waders.
- Do not clear out existing ditches, drains or wet features without prior approval from the field support officer.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed grazing stock, apart from in extreme weather and in locations agreed with your field support officer.

Capital Works

Undertake any capital works agreed with your field support officer that are necessary to manage and/or restore the wet grassland for the benefit of waders and waterfowl. These could include actions such as:

- Creating new scrapes
- Managing gutters/foot drains

Undertake any capital works agreed with your field support officer to control invasive non-native species.

Z119 - Lowland bog: enhanced management

Description

Lowland Bog: enhanced management is required to address a potentially wide range of causes of poor habitat condition. All areas of this habitat in Wales have been affected by drainage, as well as historical burning and peat cutting. By undertaking this action, it should begin the reversal of a combination of factors that have led to the development of species-poor swards, often dominated by purple moor-grass.

Lowland bog refers to peatland vegetation fed more or less exclusively by rainfall. In good condition, the acidic peat which results gives rise to a limited, but very specialised flora, dominated by cotton-grasses, heathers, bog-mosses (*Sphagnum*) and a limited range of other species.

Where to apply

Areas of lowland bog habitat affected by insufficient or no grazing, areas which have become too dry and areas affected by excess nutrients.

Aims

This action covers a very wide range of vegetation types and some variations to the general aims and management actions outlined here may be necessary.

- To encourage lowland bog habitat with a typical vegetation composition and structure, where bog mosses (*Sphagnum*) and other typical mosses are prominent, together with an open cover of cotton-grasses and heathers. Purple moor-grass should only be locally dominant.
- To prevent/reduce encroachment by negative indicators such as brambles and bracken.
- To create conditions where the surface of the bog should be wet throughout the year (except for drought periods during high summer), with flooded hollows present. There should be no new drainage.
- To prevent peat erosion.
- To confine woody species, such as willows and birch, to the edges of the peatland.

- To provide natural transitions to other semi-natural habitats, especially fen, heathland, marshy grassland and wet woodland.
- To ensure growth of bog vegetation is strongly nutrient limited. Areas affected by excess nutrients will need a range of options to cut off the nutrient supply or at least mitigate its effects.
- To ensure the conditions described above enable the long-term storage of carbon in peat and enable its ongoing accumulation through peat formation. Natural water quantity and quality functions will also be maintained, notably the regulation of discharge to headwater streams and, where appropriate, flood storage and nutrient retention.

Management

- Follow the Universal Code.

Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:

- A varied vegetation height and structure with open patches where the underlying layer of mosses and low sedges and flowering plants are visible.
- Bulky rushes, sedges and grasses have a collective cover of less than 90%.
- Dead plant material (leaf litter) is prevented from accumulating, aiming for less than 25% cover.
- Trees, scrub and bracken are prevented from encroaching onto the bog.
- Prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground makes up less than 5% cover across the fen area.
- Keep an Activity Diary and make it available as required

Restrictions

- Do not graze between 1st November and 31st March
- Do not use any herbicides or pesticides, other than for spot treatment of notifiable weeds, without prior approval from the FSO. Cutting is an acceptable method of weed control.
- Do not burn any vegetation.
- Do not excavate new pools or watering holes.
- Do not clear or de-weed existing ditches/grips, unless in agreement with your FSO.
- Do not plant any trees.
- Do not cut or top more than 30% of the bog area in any one year.
- Do not roll or chain harrow.
- Do not use the bog for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z120 - Lowland fen: enhanced management

Description

Lowland fen enhanced management is required to maintain and restore fens at risk of a decline in their current ecological and hydrological condition.

Where to apply

This action covers a very wide range of vegetation types and some variations to the general aims and management actions outlined below may be necessary.

Areas of lowland fen habitat where enhanced management is needed to either enhance the habitat condition, or to address poor condition and the potentially wide range of factors which cause this, including no or insufficient grazing, water levels which are too low, usually due to drainage, and the influence of excess nutrients.

Aims

- To encourage fen habitat with a range of species and a structure generally of the following main elements:
 - typical mosses and low-growing flowering plants and sedges,
 - an open layer of taller flowering plants,
 - an upper layer of taller grasses, sedges and/or rushes.
- To enhance the habitat so that at least four positive indicator species should be frequent. Grazing will almost always be needed to achieve these aims, with mowing and the removal of cut material sometimes also needed.
- To limit scrub so it should be absent or confined to small patches only: grazing combined with active removal or herbicide treatment of scrub may be necessary to achieve this.
- To achieve water levels that should lie at, above or close to ground level throughout the winter and spring and close enough to the surface in other months to limit vegetation growth. Drainage may prevent this aim, and a range of options may be needed to raise water levels.
- To provide generally nutrient-limited growth of fen vegetation. Areas affected by excess nutrients may need a range of options to cut off the nutrient supply or at least mitigate its effects.

Management

- Follow the Universal Code.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - A varied vegetation height and structure with open patches where the underlying layer of mosses and low sedges and flowering plants are visible.
 - Bulky rushes, sedges and grasses have a collective cover of less than 90%.
 - Dead plant material (leaf litter) is prevented from accumulating, aiming for less than 25% cover.
 - Trees, scrub and bracken are prevented from encroaching onto the fen.
- Prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground makes up less than 10% cover across the fen area.
- Keep an Activity Diary each year and make it available as required.

Restrictions

- Do not graze between 1st November and 31st March
- Do not use any herbicides or pesticides, other than for spot treatment of notifiable weeds, without prior approval from the FSO. Cutting is an acceptable method of weed control.
- Do not burn any vegetation.
- Do not excavate new pools or watering holes.
- Do not clear or de-weed existing ditches/grips unless in agreement with your project officer.
- Do not plant any new trees.
- Do not cut or top more than 30% of the fen area in any one year.

- Do not roll or chain-harrow.
- Do not cut/top or manage for hay areas supporting marsh fritillary butterfly identified by your FSO.
- Do not use the fen for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z121 - Reedbed: enhanced management

Description

Reedbed enhanced management is required to reverse threats to their condition and extent, such as water abstraction, land drainage and conversion to intensive agriculture. Enhanced management may also be required where inappropriate management has led to reedbeds drying out, allowing undesirable scrub encroachment and colonisation by invasive non-native species.

Where to apply

This action should be applied in areas where reedbed already exists or where conditions are suitable for enhancing reedbeds in wetland mosaics on mineral soils and/or where they are influenced by nutrient-rich or brackish water.

Most areas of fen habitat with a high cover of reeds on peat soils should, instead, be considered under the Lowland Fen Enhanced Management action, where grazing will help to maintain a mixed structure of reeds and other wetland plants.

Aims

- To maintain and enhance the habitat dominated by vigorously growing reeds to benefit water quality and populations of a range of specialist bird, plant and invertebrate species closely associated with reedbeds.
- To manage water levels and flows to promote year-round standing water. This may involve the maintenance of culverts, sluices or bunds.
- To manage scrub so that it should be absent or confined to small patches only. Maintaining high water levels to promote the vigorous growth of reed will help to achieve this, but many need to be combined with active removal or herbicide treatment of scrub.
- To promote good reed growth through appropriate management.
- To manage the ongoing presence of open water.

Management

- Follow the Universal Code.

- Exclude all livestock.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not graze the reedbed
- Do not use any herbicides or pesticides, other than for spot treatment of notifiable weeds, without prior approval from the FSO. Cutting is an acceptable method of weed control.
- Do not burn any vegetation.
- Do not plant any trees.
- Do not clear or de-weed existing ditches/grips unless in agreement with your FSO.
- Do not roll or chain-harrow at any time of the year.
- Do not use the reedbed for non-agricultural vehicle activities or as a track.
- Do not over deepen ditches and drains within, or around the edge of the reedbed; this will avoid lowering of water tables and reduce the risk of nutrient rich water entering the reedbed ecosystem.

Capital Works

Undertake any capital works agreed with your Field Support Officer (FSO) that are necessary to manage and/or restore the habitat. These are likely to include:

- Rotational cutting and removal of reeds.
- Promoting year-round standing water. This may require the maintenance or installation of culverts, sluices or bunds.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z122 - Floodplain meadow: enhanced management

Description

Hay meadow management of floodplain grasslands prevents over-growth of tussocky grasses and succession to scrub or woodland. Meadow species can flower and set seed before the hay is cut in summer.

These grasslands provide a wide range of ecosystem services, including pollinator habitat, valuable space for floodwaters, improved river water quality through trapping of sediments and nutrients, and capture of soil carbon to increase climate resilience.

Where to apply

This action should be applied to existing species-rich floodplain meadows or to floodplain grasslands which already support some indicator plant species such as meadowsweet and great burnet and could be restored to a species-rich floodplain meadow with appropriate management.

Improved grasslands on floodplain which currently lack species-rich floodplain grassland indicator herbs can be considered for Floodplain Meadow Creation.

Aims

- A species-rich floodplain meadow supporting a variety of native plant species which are able to flower and produce seed, and where native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- Existing species-rich meadows have at least two frequent and one occasional positive indicator herbs by the end of the five years of management. Restoring meadows have at least one frequent and one occasional positive indicator herb by the end of the five years of management.
- Agricultural species such as rye grass and white clover are absent or at low cover, and invasive tall sedges such as lesser pond-sedge and large bulky grasses such as cock's-foot are not abundant.
- Scrub and trees do not encroach across the grassland.

Management Requirements

- Follow the Universal Code.
- Provide soil test results (including available phosphorus using the 'Olsen P test') at the beginning and end of the five years of Management.

- The hay meadow must be shut off to livestock by 15th April every year.
- Cut and remove a hay crop every year between 15th June and 31st August.
- The hay should be field dried and turned at least once before removal.
- It is acceptable to make haylage, but not silage.
- The cut material must be removed from the site, even if spoiled by rain.
- A second hay cut may be taken as an alternative to aftermath grazing.
- Where the meadow will be grazed, Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - If there is grazing in March or April, a sward height where at least 75% is above 5 centimetres.
 - During grazing of the aftermath growth, a sward height where 75% of the grassland is between 2 centimetres and 10 centimetres.
 - Prevent encroachment of trees and scrub onto the grassland.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Well-rotted farmyard manure may be applied at a maximum rate of 12 tonnes per hectare once within the five years of management, but not in years when the land has flooded in the previous winter.
- Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.

- Top invasive tall sedges and large bulky grasses in late summer or autumn if these cover more than 10% of the grassland area.
- Maintain appropriate existing drainage infrastructure, including culverts, pipes, grips and ditches, to allow flood water to flow onto and off the field by gravity.
- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not cut hay meadows to below 2 centimetres in height.
- Do not graze hay meadows until at least 4 weeks after the hay cut.
- Do not top more than 30% of the grassland area in any one year, for example during weed or tall sedge control.
- Do not create new drainage ditches or drains without prior approval from the FSO.
- Do not plant trees or shrubs on the grassland.
- Do not introduce species to the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat e.g. drainage infrastructure.

Z123 – Neutral grassland: hay meadow enhanced management

Description

Hay meadow management of species-rich neutral grasslands prevents over-growth of tussocky grasses and succession to scrub or woodland. Meadow species can flower and set seed before the hay is cut in mid-summer. These grasslands provide a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and sustainably produced meat.

Where to apply

This action is aimed at managing or enhancing neutral grassland that is already rich in plant species, including at least two frequent positive indicators.

Aims

- A species-rich neutral grassland managed as a hay meadow supporting a variety of native plant species which are able to flower and produce seed, and where native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- At least two positive indicator plant species are frequent and one occasional by the end of year five of management.
- Agricultural species such as ryegrass and white clover are absent or at low cover, and large bulky grasses such as cock's-foot are not abundant.
- Bracken, scrub and trees do not encroach across the grassland.

Management

- Follow the Universal Code.
- The hay meadow must be shut off to livestock by 1st May every year.
- Cut and remove a hay crop once every year between 7th July and 31st August (for sites above 250 metres altitude, cut between 15th July and 7th September).
- Leave 5% of grassland at the margins of the meadow uncut each year to provide habitat for invertebrates.
- The hay should be field dried and turned at least once before removal.
- It is acceptable to make haylage, but not silage.

- The cut material must be removed from the site, even if spoiled by rain.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - If grazing in March or April, a sward height is achieved where at least 75% is above 5 centimetres.
 - During grazing of the aftermath growth, a sward height is achieved where 75% of the grassland is between 2 centimetres and 10 centimetres.
 - Encroachment of trees, scrub and bracken onto the grassland is prevented.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Well-rotted farmyard manure may be applied to hay meadows at a maximum rate of 12 tonnes per hectare once within the five years of management.
- Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Keep an Activity Diary for each year and make it available as required.

Restrictions

- Do not cut hay meadows to below 2 centimetres in height.
- Do not graze hay meadows until at least 4 weeks after cutting.
- Do not lime areas of more acid habitat identified by your FSO.

- Do not clear out existing ditches without prior approval from the FSO.
- Do not plant trees or shrubs on the grassland.
- Do not introduce species to the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z124 - Neutral grassland: pasture enhanced management

Description

Species-rich neutral grasslands require grazing to prevent over-growth of tussocky grasses, expansion of bracken and succession to scrub or woodland. They provide a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and a supply of sustainably produced meat. The presence of a variety of deep-rooted perennial plants provides forage during extreme weather such as drought.

Where to apply

This action is aimed at managing or enhancing lowland neutral grassland that is rich in plant species, including flowering herbs.

Aims

- A species-rich neutral grassland managed as pasture with a varied sward height, supporting a variety of native plant species which are able to flower and produce seed, and where grassland fungi and native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- At least three positive indicator plant species are frequent.
- Agricultural species, such as ryegrass and white clover are absent or at low cover, and large bulky grasses such as cock's-foot are not abundant.
- Bracken, scrub and trees do not encroach across the grassland.
- Small-scale features such as anthills and mature native trees are maintained.

Management

- Follow the Universal Code.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - At least 75% of the grassland area is above 5 centimetres in height between 1st May and 30th September.

- From four weeks after the reintroduction of livestock and for the remainder of each grazing period, at least 75% of the grassland should be under 20 centimetres in height.
- Dead plant material (leaf litter) is prevented from forming large patches and kept to less than 10% cover across the grassland area.
- Large bulky grasses, such as cock's-foot, are prevented from becoming dominant, apart from in patches covering no more than 5% of the grassland.
- Encroachment of trees, scrub and bracken onto the grassland is prevented.
- Graze between four and nine calendar months in a year.
- Allow a minimum of four to a maximum of six weeks continuous period of no grazing sometime between 1st April and 30th August.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Lime may be applied to neutral grassland when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5. Care should be taken to avoid lime affecting adjacent habitats, such as acid or marshy grassland, wetland or heathland.
- Keep an Activity Diary each year and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not apply any inorganic or organic fertilisers such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal.
- Do not top more than 30% of coarse grasses, rush or weed species in any one year.
- Do not roll or harrow.

- Do not lime areas of more acid forms of neutral grassland identified by your FSO.
- Do not clear out existing ditches without prior approval from the FSO.
- Do not plant trees or shrubs on the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital Works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z125 - Neutral grassland: hay meadow enhanced management with delayed cutting

Description

Delayed cutting of hay meadows allows ground-nesting birds such as curlew and lapwing more time to raise their young, before the hay is harvested, and provides a nectar source for later-flying bumblebees, butterflies and other invertebrates.

Where to apply

This action is for neutral grassland supporting ground-nesting birds, such as curlew and lapwing, and later-flying insects.

Aims

- A species-rich neutral grassland managed as a hay meadow, supporting ground-nesting birds such as curlew and lapwing and later-flying bumblebees, butterflies and other invertebrates.
- A variety of native plant species are frequent and able to flower, agricultural species such as ryegrass and white clover are absent or at low cover and bracken, scrub and trees do not encroach across the grassland.

Management

- Follow the Universal Code.
- The hay meadow must be shut off to livestock by 1st May every year.
- Cut and remove a hay crop once every year between 15th July and 7th September. If managing for invertebrates, especially shrill carder-bee, cutting towards the end of this period is preferable.
- Leave 10% of the field uncut each year to provide habitat for invertebrates. If possible, rotate the uncut section each year.
- The hay should be field dried and turned at least once before removal.
- It is acceptable to make haylage, but not silage.
- The cut material must be removed from the site, even if spoiled by rain.
 - Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where

forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved. If grazing in March or April, a sward height is achieved where at least 75% is above 5 centimetres.

- During grazing of the aftermath growth, a sward height is achieved where 75% of the grassland is between 2 centimetres and 10 centimetres.
- Encroachment of trees, scrub and bracken onto the grassland is prevented.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Well-rotted farmyard manure may be applied to hay meadows at a maximum rate of 12 tonnes per hectare once within five years of management. Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Keep an Activity Diary for each year and make it available as required.

Restrictions

- Do not cut hay meadows to below 2 centimetres in height.
- Do not graze hay meadows until at least 4 weeks after cutting.
- Do not lime areas of more acid habitat identified by your FSO.
- Do not clear out existing ditches without prior approval from the FSO.
- Do not plant trees or shrubs on the grassland.
- Do not introduce species to the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.

- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z126 - Neutral grassland: restoration

Description

Species-rich neutral grasslands can be restored with hay meadow management, allowing meadow species to flower and set seed before the hay is cut in mid-summer.

These grasslands provide a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and a supply of sustainably produced meat. Increasing the variety of deep-rooted perennial plants improves forage provision during extreme weather, such as drought.

Where to apply

This action can be applied to semi-natural grassland (containing less than 25% improved agricultural grass species and/or white clover) which has at least one frequent and one occasional positive indicator plant species.

The action is not appropriate for sites with more fertile soils as high soil fertility limits the spread of most species-rich grassland indicator plants.

More species-poor sites may be suitable for Neutral Grassland: Creation. Sites that are already species-rich may be suitable for Neutral Grassland Hay Meadow or Pasture Enhanced Management action.

Aims

- To restore species-rich neutral grassland through hay meadow management. A variety of native plant species are able to flower and produce seed, and native animals (including bumblebees, butterflies and other invertebrates) can thrive.
- For at least two positive indicator plant species to be frequent after five years of management.
- By the end of year five of management, agricultural species, such as ryegrass and white clover, are absent or at low cover and large bulky grasses, such as cock's-foot, are not abundant.
- To ensure bracken, scrub and trees do not encroach across the grassland.

Management Requirements

- Follow the Universal Code.

- Provide soil test results (including available phosphorus using the 'Olsen P test') both before July in the first year and in the last year of management.
- The hay meadow must be shut off to livestock by 1 May every year.
- Cut and remove a hay crop once every year between 7 July and 31 August (for sites above 250 metres altitude, cut between 15 July and 7 September).
- Leave 5% of grassland at the margins of the meadow uncut each year to provide habitat for invertebrates.
- After seed is introduced, the hay should be field dried and turned or tedded at least once before removal.
- It is acceptable to make haylage, but not silage.
- The cut material must be removed from the site, even if spoiled by rain.
- Where the meadow will be grazed, use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - If there is grazing in March or April, maintain a sward height where at least 75% is above 5 centimetres.
 - During grazing of the aftermath growth, maintain a sward height where at least 75% of the grassland is between 2 centimetres and 10 centimetres.
 - To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
 - Prevent encroachment of trees, scrub and bracken onto the grassland.
- If a soil test shows available soil phosphorus levels at more than 25 milligrams (mg) per litre (Olsen's index 3+), take a second hay cut about four weeks after the first. Remove the cut material from the site.

- Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Top large bulky grasses in late summer or autumn if they cover more than 10% of the grassland area.
- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not cut hay meadows to below 2 centimetres in height.
- Do not graze hay meadows until at least 4 weeks after the hay cut.
- Do not apply farmyard manure.
- Do not lime areas of more acid habitat identified by your Field Support Officer.
- Do not clear out existing ditches without prior approval from the Field Support Officer.
- Do not plant trees or shrubs on the grassland.
- Do not introduce species to the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to restore the grassland.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z127 - Lowland acid, calcareous and calaminarian grassland: enhanced management

Description

Species-rich acid, calcareous and calaminarian grasslands require grazing to prevent over-growth of tussocky grasses, expansion of bracken and succession to scrub or woodland. They provide a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and a supply of sustainably produced meat. The presence of a variety of deep-rooted perennial plants provides forage during extreme weather such as drought.

Where to apply

This action is aimed at managing or enhancing lowland acid, calcareous grasslands and calaminarian grassland in the lowlands and upland fringes, that are rich in plant species, including flowering herbs.

Aims

- A species-rich acid, calcareous or calaminarian grassland with a varied sward height managed as pasture, supporting a variety of native plant species which are able to flower and produce seed, and where grassland fungi, mosses and native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- A range of positive indicator plant species are present, depending on the type of grassland.
- Agricultural species, such as ryegrass and white clover, are absent or at low cover, and large bulky grasses such as cock's-foot are not abundant.
- Bracken, scrub and trees do not encroach across the grassland.
- Small-scale features, such as anthills and mature native trees, are maintained.

Management

- Follow the Universal Code.
- Graze for at least four calendar months a year.

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - For typical, closed-turf grassland (containing a continuous carpet of grasses and herbs), at least 75% of the grassland area is above 3 centimetres in height between 1st May and 30th September.
 - For stony, open-turf grassland on thin soils, at least 75% of the grassland area is below 10 centimetres in height between 1st May and 30th September.
 - From two weeks after the reintroduction of livestock and for the remainder of each grazing period, at least 75% of the grassland should be under 20 centimetres in height, apart from calcareous grassland dominated by upright brome or downy oatgrass, where at least 75% of the grassland should be under 50 centimetres in height during the grazing period.
 - Hay meadow management can be used as an alternative to pasture – the hay should be cut between 7th July and 31st August and the cut material removed. The aftermath growth should be grazed so that at least 75% of the grassland is under 20 centimetres in height by the end of the grazing period or cut a second time.
 - Dead plant material (leaf litter) is prevented from forming large patches and is kept to less than 10% cover across the grassland area.
 - Large bulky grasses such as cock's-foot are prevented from becoming dominant, apart from in patches covering no more than 5% of the grassland.

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.

- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or invasive non-native species in the Activity Diary.

- Keep an Activity Diary each year and make it available as required.

- Prevent encroachment of trees, scrub and bracken onto the grassland.

Restrictions

- Do not roll or harrow.
- Do not apply lime or a liming agent.
- Do not apply any inorganic or organic fertilisers such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal.
- Do not cut or top more than 30% of coarse grasses or weed species in any one year.
- Do not plant trees or shrubs on the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z128 - Limestone pavement: enhanced management

Description

This action is to manage and improve the condition of limestone pavement.

Limestone pavements can be wooded or open. Open examples require management to prevent encroachment by scrub and/or trees or to push back scrub/trees that have encroached in the past.

Limestone pavements support a range of wild plants, including a number of uncommon species. Some species grow deep in the grikes, while others are adapted to the dry conditions of the clink tops.

Limestone pavements are often found in association with calcareous grassland or may form open areas within woodland on limestone soils.

Where to apply

Apply this action on limestone pavement which is open or requires opening up to maintain or increase plant diversity.

Aims

- To maintain or restore open areas of limestone pavement through light grazing and/or manual scrub control, to support a variety of native plant species in grikes and on clints, which are able to flower and produce seed, and where grassland mosses and native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- To achieve a range of limestone pavement positive indicator plant species are present.
- To ensure weed species, such as nettles and tall thistles, are rare or absent.
- To prevent bracken, scrub and tree encroachment across the limestone pavement and open pavement is restored where appropriate.

Management Requirements

- Follow the Universal Code.
- For grazed pavements, graze for at least two calendar months a year.

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - At least 75% of grassy patches within or immediately adjacent to the pavement are between 3 and 20 centimetres in height between 1st May and 30th September.
 - Dead plant material (leaf litter) does not form large patches which smother the vegetation in the grikes.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or invasive non-native species in the Activity Diary.
- Keep an Activity Diary each year and make it available as required.
- Prevent encroachment of trees, scrub and bracken onto the limestone pavement.
- Remove any dumped material from the pavement tops and grikes.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the habitat area.

Management Restrictions

- Do not remove any limestone rocks or native soil from the limestone pavement.
- Do not import soil or in-fill the limestone pavement grikes.
- Do not apply lime or a liming agent.
- Do not apply any inorganic or organic fertilisers, such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal.
- Do not introduce any species to the limestone pavement.
- Do not use the limestone pavement for any vehicle activities.

- Do not supplementary feed on or within 10 metres of limestone pavement. In extreme weather, locations must be agreed with your Field Support Officer.

Capital Works

- Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat, including controlling invasive native species such as bramble and traveller's-joy (old man's beard) and controlling trees and scrub.
- Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z129 - Upland: habitat mosaic enhanced management

Description

Enhanced management for upland mosaics is required to begin restoring upland habitats which are in danger of becoming dominated by coarse grasses, bracken and scrub, or areas where there is localised overgrazing due to the limited availability of palatable fodder. This action may also be used to maintain sward heights that favour upland birds, such as short turf for chough.

Where to apply

This action should be applied to upland habitats located above the upper limit of enclosure, which is available on DataMapWales. It may comprise any mixture of habitats including heath, bog, flush, fen, acid or calcareous grassland, rock scree, scrub, bracken and scattered trees.

Aims

- To restore or improve upland habitats. This may include the restoration or enhancement of heath, bog, flush, fen, acid or calcareous grassland, rock scree, scrub, bracken and scattered trees.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
Stocking rates will be set according to the requirements of the individual site based on the vegetation cover present and the objectives in the Management Plan for your holding.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- Where rotational burning is planned management, agree a Burning Management Plan with your FSO in accordance with the Heather and Grass Burning Regulation 2008 and Heather and Grass Burning Code 2008.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not burn any part of heathland more than once every 15 years.
- Do not cut or mow any part of heathland more than once every 15 years.
- Do not burn areas of wet heath or peatland.
- Do not clear out existing ditches.
- Do not plant any trees.
- Do not cut or top more than 30% of rush or weed species in any one-year.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not roll or chain-harrow at any time of year.
- Do not use for non-agricultural vehicle activities.

Capital works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the upland habitats.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z130 - Traditional orchards: enhanced management

Description

This action provides management for existing traditional orchards. Well managed traditional orchards stay productive for longer and support a wide range of wildlife, including pollinators and birds. Regular pruning and replacing aging trees keeps the orchard healthy, reduces risk of tree loss and maintains your fruit supply. These orchards also enhance the character of your land, support soil health and carbon storage and can offer small-scale income.

Where to apply

This action should be applied to existing traditional orchards, including those where restoration is required.

Traditional orchards are those with widely spaced fruit or nut trees that are grown as standards or half standards on vigorous root stock and managed in a low intensity way.

Aims

- Encourage the maintenance and/or development of a diverse habitat and landscape feature comprising standard or half standard fruit and/or nut trees, species-rich grassland and traditional field boundaries.
- Provide a habitat that supports key components of biodiversity associated with traditional orchards, including specialised invertebrate, lichen and fungal communities.
- Maintain the characteristic features of less intensively managed orchards, such as dead wood. This can support mosses, lichens and fungi, as well as insects and other invertebrates.
- Maintain the grassland to retain or encourage flowering plants typical of neutral grassland.
- Safeguard traditional varieties of fruit tree, especially those local to the area.

Management Requirements

- Follow the Universal Code.
- Retain all existing fruit/nut trees, unless diseased or constitute a demonstrable hazard.
- Replace trees where there are gaps in the orchard (capital funding available), as agreed with your Field Support Officer.
- Undertake regular pruning to maintain a reasonable level of health and productivity, if necessary, and to prevent trees becoming vulnerable to windthrow.
- Where trees have been unpruned for several years or have been damaged, seek advice or employ a specialist contractor to undertake restorative pruning (capital funding available). Where undertaking major restorative pruning, prune gradually over a period of five years.
- Retain some dead wood on the trees.
- Manage the grassland by cutting and/or grazing.

Where grazing:

- Maintain a sward with a range of heights during the growing season to allow plants to flower and to provide a varied habitat.
- Graze for between 4 and 9 calendar months in a year. Ensuring that there is a minimum of 3 months during the year when the orchard is ungrazed.
- Allow a 6-week continuous period of no grazing between 1st April and 30th August. This will allow plants to flower and set seed.
- Ensure at least 75% of the grassland is above 5 centimetres in height between 1st May and 30th September.
- Graze at levels that do not create more than 10% bare ground beneath the canopy of the trees.
- Do not graze with goats, horses or cattle unless trees are protected by stock guards, because of the likelihood of damage to the fruit trees. Sheep and poultry are more suitable stock where trees are not protected.

Where cutting:

- If only cutting, take 2 to 4 cuts per year or, if cutting and grazing, take one cut in addition to aftermath grazing.
 - At least 10% of the grassland must be left uncut on each cut and the uncut section moved around each cut.
 - The cut material should be removed.
 - The sward height should not be reduced below 5 centimetres.
 - Maintain patches, amounting to at least 10% of the orchard area, of tall grass, nettle and bramble (usually around the edges of the orchard). Cut these on a 2–3-year rotation, to provide habitat diversity.
-
- Retain ivy on walls and trees that are not fruit/nut trees as a pollen/nectar source, for berries and as shelter for small birds. Ivy may be removed from fruit/nut trees or where it is causing damage to a wall.
 - Any fallen dead wood or pruned timber should be stacked and retained within the orchard unless the wood is diseased.
 - Prevent damage to fruit trees from livestock and machinery.
 - Maintain/install stock-proof boundaries, where grazing the grassland, so that grazing rates can be controlled within the orchard. If new boundaries are required, hedgerows should be chosen where feasible as they significantly add to the wildlife value of the orchard.
 - Lime maybe applied to raise soil pH to 6-6.5.
 - Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not use tar oil washes and other pesticides as these reduce the wildlife value of the orchards.
- Do not prune out mistletoe (sustainable harvesting is acceptable).
- Do not clear out existing drains without prior approval from the Field Support Officer.
- Do not install new watering troughs without prior approval from the Field Support Officer.
- Do not use the grassland for non-agricultural vehicle activities or as a track.

- Do not supplementary feed, apart from in in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer necessary to manage the grassland.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z131 - Hedgerows: enhanced management for brown hairstreak butterfly

Description

This action is specifically tailored to provide suitable habitat for brown hairstreak butterflies. This threatened butterfly lays its eggs on young blackthorn twigs in the autumn. To survive, a good proportion of these eggs must not be removed during hedge trimming.

Enhanced management for hedgerows will also provide additional benefits for biodiversity by creating habitat and food sources for a variety of farmland small mammals, birds and pollinating insects. The hedgerows will sequester carbon as they grow and provide benefits for water quality, flood risk mitigation and for livestock management, health and welfare. Well-managed hedgerows also contribute to improvements in the Welsh landscape.

Where to apply

Only apply this action in areas identified as important for brown hairstreak butterfly.

Where there are brown hairstreak butterfly populations, applying this action over time to a number of connected hedges would be more beneficial rather than single isolated hedgerows.

This action can be applied to individual hedges on a farm. Before entering this action, many existing hedges will require rejuvenation management (laying, coppicing and/or gapping up). Where rejuvenation is required, apply for a maximum of 10% of your hedges to enter the action in any one year. This will help establish a management cycle across your farm and prevent loss of species that require mature hedgerows in the landscape.

Do not select lines of trees for this action that are unsuitable for rejuvenation management. The purpose of this action is to create dense, continuous hedgerows.

Do not select hedgerows alongside highways and Public Rights of Way that require frequent trimming or do not have the space to reach the minimum width.

Aims

- To produce continuous, dense hedgerows that yield an abundance of flowers and fruit.
- To provide suitable hedgerow structure for brown hairstreak butterflies and other wildlife that uses hedgerows as a habitat.

- To increase the survival rate for eggs of brown hairstreak butterflies.
- For the hedgerow:
 - to be continuous with a minimum of gaps along the length
 - to have twiggy growth close to the ground
 - to be dense with a high number of stems per length of hedgerow
 - to have a substantial hedge volume
 - to produce abundant flowers and fruits on the length of the hedgerow
 - to have frequent standard trees
 - to have an unfertilised and unsprayed margin sufficiently wide to protect the hedgerow from negative impacts

Management Requirements

- Follow the Universal Code
- Maintain the hedge to be continuous with a maximum of 5% gaps along the length.
- Double fencing must be in place, stock proof and maintained, where livestock have access to the hedge. Fencing is not essential on arable land where there is no grazing. Existing stockproof fencing at less than 3 metre width is acceptable but replacement fencing must be at a minimum of 3 metre width. Where there are banks associated with the hedge, new fences should be at the base/heel of the bank (or wider) to avoid damage to the bank.
- Where new shrubs are planted, ensure that the majority of shrubs (more than 70%) are blackthorn.
- Trim the hedgerow incrementally no more than once every three years, retaining a minimum of 10 centimetres growth each time the hedgerow is trimmed. Regular trimming is not essential, laying every 15 to 25 years is a good alternative.
- Any trimming should be undertaken from 1 September to 30 September.
- Where blackthorn is growing outside the hedgerow, growth should only be trimmed back every two years.
- Over time, allow the hedge to reach minimum dimensions of 2.5 metres wide by 3 metres high or 3 metres wide by 2.5 metres high.

- Once the hedge has reached 3 metres by 2.5 metres, choose and continue with **one** of the options below:
 - Continue to incrementally trim allowing the hedgerow to slowly increase in size
 - Trim the hedgerow no more than once every three years but maintaining the 3 metres x 2.5 metres volume
 - Rejuvenate the hedgerow through laying or coppicing and return to incrementally trimming once every three years until the hedge reaches 3 metres by 2.5 metres again
 - Enter a period of no trimming, before rejuvenating the hedge through laying or coppicing.
- You must maintain or establish at least one native hedgerow tree on average for every 50 metres of hedgerow. You should meet this requirement on a field parcel basis.
- Where you need to establish hedgerow trees to meet this requirement this can be achieved by either:
 - identifying hedgerow plants that have the potential to develop into hedgerow trees and allowing these to grow up, or
 - by planting new standard trees within the hedgerow.

Where ash is present in the hedge, ensure that ash trees are included in those trees selected to grow up into standard trees (part of the Universal Action requirement). If ash trees become diseased and die, select replacements when trimming in subsequent years.

- On grassland, leave an uncultivated, unfertilised and unsprayed margin to the hedgerow at least 3 metres wide, measured out from the edge of the hedge base.
- On arable land, leave an unfertilised and unsprayed margin to the hedgerow at least 3 metres wide, measured out from the edge of the hedge base. The 2 metres nearest to the hedge must be uncultivated to allow perennial vegetation to develop. The 1 metre nearest to the crop may be cultivated annually but left fallow without a crop.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not cut or fell any trees between 1 March and 31 October, unless:

- The tree overhangs a highway, road, track or footpath to which the public have access, and the work is necessary because the overhanging vegetation:
 - obstructs the passage of vehicles or pedestrians
 - obstructs the view of drivers, or the light from a public lamp
 - is a danger to horse-riders
 - The tree needs to be cut or trimmed because it is dead, diseased or damaged or insecurely rooted, and is likely to cause danger by falling onto a highway, road or footpath.
 - The cutting or trimming is carried out in order to maintain a ditch.
 - There is an enforcement notice issued by the Local Authority under the Highways Act 1980 Section 154 in order that the passage of vehicles or pedestrians is not obstructed or endangered, it is considered that the hedge and/or branches of trees at the locations described require trimming/lopping or pleaching.
- You must complete the Activity Diary and retain evidence of why trees have been cut / trimmed between 1 March and 31 October and make this available at inspection if requested.
- Do not remove deadwood (except as part of rejuvenation management), unless it presents a demonstrable hazard.
- Do not supplementary feed within 5 metres of the hedgerow.
- Do not burn vegetation or other materials within 5 metres of the hedgerow.
- Do not use the hedgerow margin as a track.
- Do not use the hedge margin to store materials or machinery.

Z132 - Peatland: restoration, re-introduce grazing

Description

This action supports the re-introduction of grazing to sites that have remained ungrazed for a period of time.

Grazing re-introduction is needed to control and, where possible, knock-back scrub. Grazing is also needed to prevent overwhelming dominance of peatland vegetation by a few species, including purple moor-grass and heather; although these are native species and a natural component of peatland vegetation, they can become overwhelmingly dominant where entirely ungrazed.

Where to apply

This action should be applied on ungrazed lowland peatland sites which historically supported sustainable grazing.

In cases where no history of grazing is known, this action may be considered in discussion with your Field Support Officer.

This action can be used across any of the lowland peatland habitats, with the exception of reedbed.

Aims

- To control and, where possible, knock-back invasive native deciduous scrub, mainly species of birch and willow.
- To prevent overwhelming dominance of peatland vegetation by a few native species, including purple moor-grass and heather; although these are native species and a natural component of peatland vegetation, they can become overwhelmingly dominant where entirely ungrazed.
- The short-term aim of this action is to put in place conditions to enable effective grazing and stock security and safety.
- The longer-term aim is to achieve improvements in habitat condition, which both increase the value of the land for grazing and achieve outcomes, as laid out in relevant optional actions for habitat maintenance.

Management Requirements

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer.
- Prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and feeding areas is acceptable provided that poached and bare ground make up less than 5% cover across the peatland area.
- Prevent encroachment of trees, scrub and bracken onto the peatland.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not graze between 1 November and 31 March.
- Do not burn any vegetation.
- Do not excavate new pools or watering holes.
- Do not clear or de-weed existing ditches/grips unless in agreement with your Field Support Officer.
- Do not plant any trees.
- Do not cut or top more than 30% of the peatland area in any one year, unless agreed with your Field Support Officer.
- Do not roll or chain harrow at any time of year.
- Do not use the peatland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore peatland habitat. These may include items such as fencing, water supply, mowing and scrub removal.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z133 - Wood pasture: enhanced management

Description

The action provides management for wood pasture to ensure regeneration of trees and shrubs and beneficial management of open areas.

Wood pasture is a particularly valuable habitat for many species of bird, and the tree trunks often support diverse communities of lichen.

Maintaining and restoring wood pasture retains trees in the landscape that store carbon, increase water infiltration and provide valuable shelter and shade for livestock.

Where to apply

This action will apply to all areas of wood-pasture (more than 6 trees per hectare and up to 30% canopy cover) and will include areas of ffridd or coedcae containing trees in the upland fringe.

Aims

- To maintain the structure of existing wood-pasture habitat and protect trees.
- To maintain more than 6 trees per hectare and a maximum canopy cover of 30% by encouraging natural regeneration.
- To balance open areas of various habitat types, regenerating, mature and veteran native broadleaf trees and a variety of native nectar producing shrubby trees.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Stocking rates will be set according to the requirements of the individual site and will be between 0.3 and 0.5 livestock units (LSU) per hectare.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground makes up less than 5% cover across the habitat.
- To prevent overgrazing, remove stock during prolonged periods of dry weather if conditions are impacting plant growth.
- Maintain a minimum of 6 trees per hectare. Where necessary agree a plan for new tree establishment with your FSO.

- Retain all deadwood whether standing or on the ground, unless it presents a demonstrable hazard.
- Ensure mature trees are not debarked by livestock and there is limited bare ground around the base of trees (fewer than 10% of trees have bare ground around their base)
- Where very dense bracken prevents grazing, undertake capital works to control the bracken to a level where re-introduction of grazing is possible. Then graze at the appropriate level for the ground cover habitat.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not fell any existing native broadleaf trees.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.
- Do not apply veteranisation techniques to veteran or ancient trees.
- Do not clear out existing ditches.
- Do not cultivate the soil around the trees.
- Do not cut or top vegetation.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.

Capital works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the wood pasture.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z134 - Parkland: enhanced management

Description

This action provides management to retain and enhance the biodiversity and historic characteristics of parkland. Management will retain ancient and veteran trees and, where necessary, plant replacements for the future.

Where to apply

Applicable to areas currently mapped as historic parkland and/or have a landscape of planted scattered trees through field parcels.

The management relates solely to the trees and shrubs. Other actions can be combined to provide management of the ground layer, whether grassland or arable.

Aims

- To maintain a landscape characterised by large, often mature trees in an open, grazed landscape, often resulting from historical land management, and are valuable for their biodiversity and historical significance.
- To encourage the development of a diverse habitat and landscape feature comprising specimen broadleaved and exotic trees, together with replacement native broadleaf saplings and lightly grazed pasture.
- To retain the characteristic features of less intensively managed parkland such as ancient trees and dead wood. This will benefit hole nesting birds as well as lichens, fungi, insects and other invertebrates.
- To ensure that any replacement planting is in keeping with existing landscape character and the historic value of the site.

Management

- Follow the Universal Code.
- Retain all trees.
- Plant and / or maintain areas of native shrubs to provide nectar sources to create a minimum cover of 5% as agreed with your Field Support Officer (FSO).
- Retain all standing dead wood, unless it creates a demonstrable hazard.

- Retain all fallen dead timber and any cut material. The timber should be retained in- situ or moved to a semi-shaded area nearby.
- Agree the appropriate management action for the management of the ground layer with your FSO.
- Ensure that any replacement planting is in keeping with existing landscape character and the historic value of the site including appropriate species selection and planting locations.
- Adhere to the grazing plan agreed with your FSO.
- Ensure that grazing livestock have not been treated with products containing avermectin four weeks prior to or during the period they are grazing the area covered by this action.
- Agree with your FSO a plan for reducing fertiliser inputs.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not spread any fertiliser/slurry within 5 metres of any mature trees or directly on to tree trunks.
- Do not fell any existing native broadleaf trees.
- Do not carry out veteranisation on veteran or ancient trees unless agreed with your FSO.
- Do not clear out existing ditches without permission from with your FSO.
- Do not allow soil compaction under the canopy of veteran and ancient trees.
- Do not cultivate the soil under the canopy of veteran and ancient trees.
- Do not dig ditches that interfere with roots or alter the groundwater.
- Do not apply any insecticides, fungicides or molluscicides.
- Do not allow drift of lime or any other substance used to alter the soil acidity on to the trees.

- Do not burn vegetation or other materials.
- Do not roll or chain-harrow.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hardstandings or any new structures.
- Do not store materials or machinery.

Capital works

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the parkland. For example, replacement tree planting and veteranisation of trees.

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z135 - Scrub: enhanced management

Description

This action provides management to enhance existing areas of scrub where they have a high value for wildlife and/or contribute to habitat connectivity.

Where to apply

This action should be applied on existing areas of native scrub where it provides a particularly valuable habitat or requires managing for it to contribute to the ecological connectivity of the landscape.

Refer to the relevant guidelines where scrub is a component part of another habitat.

Aims

- To enhance existing areas of native scrub where it contributes to the ecological connectivity of the landscape.
- To encourage the spread of such scrub where there is no net loss of more valuable habitats or features.
- Within large areas of scrub, to provide a range of age classes interspersed with small areas of open grassland.
- To produce a landscape characterised by dense shrubby trees in both dry and wet conditions that are valuable for biodiversity.

Management

- Follow the Universal Code.
- Where scrub is grazed, adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground makes up less than 5% cover across the scrub habitat.
- Maintain and retain all native trees scattered through the scrub.
- Allow regeneration of trees / scrub naturally if there are gaps within the scrub.

- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not use any herbicides or pesticides, other than for spot treatment of notifiable weeds, without prior approval from the FSO.
- Do not burn any vegetation.
- Do not extract any cut stumps or use any methods other than hand cutting without prior approval from the FSO.
- Do not install any new drains or open out any existing ditches without prior approval from the FSO.
- Do not store materials or machinery.
- Do not install any new tracks without prior approval.
- Do not use the scrub habitat for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital works

- Undertake any capital works agreed with your FSO to control invasive non-native species.
- Undertake any capital works agreed with your FSO that are necessary to manage the scrub. This could include:
 - Any coppicing or thinning. Small irregular treatments are desirable for both landscape and wildlife reasons.
 - Cutting of firebreaks.

Z136 - Woodland: enhanced management, stock exclusion

Description

This action manages woodland without grazing. A period without grazing animals will allow young trees to establish and provide a mix of tree ages within the woodland.

Where to apply

This action should be used for woodlands where canopy tree regeneration is very low to non-existent due to historical heavy/winter grazing and where there has been no recruitment or potential recruitment into the canopy for decades.

Do not use this action within the temperate rainforest zone, as grazing is required to maintain sufficient light levels through the woodland to support mosses on the ground and lichens on tree trunks.

Aims

Where a woodland has been overgrazed for many years, excluding livestock for a period of time will promote tree regeneration and improve the structure of the woodland.

- To retain current areas of semi-natural woodland.
- To achieve a mix of canopy tree age-classes within the woodland
- To achieve a varied shrub layer within the woodland
- To enable the woodland to support frequent deadwood, dynamic canopy gaps and open space.
- To put in place conditions to allow sufficient tree regeneration to maintain woodland habitat indefinitely.
- To ensure all temporary canopy gaps created by fallen trees contain at least one viable canopy tree seedling/sapling.
- For woodlands to have a diverse structure, both at the scale of individual stands and across landscapes.

Management

- Follow the Universal Code.
- Exclude all livestock from the woodland.

Restrictions

- Do not cut, trim or fell trees during the bird nesting season between 1 March and 31 August.
- Do not fell any native broadleaved trees without agreement with your FSO.
- Do not clear out existing ditches.
- Do not supplementary feed.
- Do not remove any deadwood, unless it presents a demonstrable hazard.
- Do not cut or top vegetation.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not plant trees.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hardstanding or any new structures.
- Do not store materials or machinery, (e.g. logs, equipment, chemicals)
- Do not use heavy machinery that could cause soil compaction, root disturbance or bark damage.

Capital works

Undertake any capital works agreed with your Field Support Officer (FSO) to control invasive non- native species.

Undertake any capital works agreed with your FSO to manage and/or restore the woodland. These could include:

- Removing non-native trees such as sitka spruce and turkey oak.
- Deer fencing where population levels are high.

Z137 - Woodland: enhanced management, light grazing

Description

This action provides woodland management that maintains or creates enhanced light levels within the woodland floor to benefit mosses and liverworts and also to tree trunks to benefit lichens. This will also benefit the declining woodland bird assemblage typical of Welsh upland woods, namely pied flycatcher, redstart and wood warbler.

Where to apply

This action should be applied to semi-natural broadleaved woodlands where the woodland is currently being managed by light grazing or where the woodland would benefit from the reintroduction of light grazing.

Aims

- To retain current areas of semi-natural woodland.
- To ensure that conditions/management are in place to allow sufficient tree regeneration to maintain woodland habitat indefinitely.
- To create or maintain woodlands with a diverse structure, both at the scale of individual stands and across landscapes.
- To ensure that sufficient light reaches the ground to allow the development of lower plant communities both on the woodland floor and also on trees.
- To remove dense tree regeneration around veteran trees
- To remove dense bramble and bracken that are potentially shading tree trunks that support important lower plant populations.
- To provide suitable habitat for species that require a more open woodland structure.

Management

- Follow the Universal Code.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable, provided that poached bare ground makes up less than 5% cover across the woodland.

- Keep an Activity Diary for each year and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

- Do not cut, trim or fell trees during the bird nesting season between 1 March and 31 August
- Do not fell any native broadleaved trees without agreement with your FSO.
- Do not clear out existing ditches or install any new drainage.
- Do not remove deadwood, unless it presents a demonstrable hazard.
- Do not supplementary feed.
- Do not cut or top vegetation.
- Do not roll or chain-harrow at any time of year.
- Do not burn vegetation or other materials.
- Do not plant trees unless included in the management plan agreed with your FSO.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hardstanding or any new structures.
- Do not store materials or machinery, (e.g. logs, equipment, chemicals).
- Do not use heavy machinery that could cause soil compaction, root disturbance or bark damage.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the woodland. This could include removing non-native trees, such as sitka spruce and turkey oak.

Z138 - Hedgerows: Enhanced Management

Description

Enhanced management for hedgerows will provide additional benefits for biodiversity by creating better habitat and food sources for a variety of farmland small mammals, birds and pollinating insects. The hedgerows will sequester more carbon as they grow and provide greater benefits for water quality, flood risk mitigation and for livestock management, health and welfare. They also contribute to improvements in the Welsh landscape.

Where to apply

This action can be applied to individual hedges on a farm. Before entering this action, many existing hedges will require rejuvenation management (laying, coppicing and/or gapping up). Where rejuvenation is required, apply for a maximum of 10% of your hedges to enter the action in any one year. This will help establish a management cycle across your farm and prevent loss of species that require mature hedgerows in the landscape.

Do not select lines of trees for this action that are unsuitable for rejuvenation management. The purpose of this action is to create dense, continuous hedgerows.

This action is particularly suited to areas where there are species populations that would benefit from large, continuous hedgerows, for example, dormouse populations or bats using hedgerows as flight paths. Where there are target species using hedges in the locality, applying this action over time to a number of connected hedges would be more beneficial rather than single isolated hedgerows.

Do not select hedgerows alongside highways and Public Rights of Way that require frequent trimming or do not have the space to reach the minimum width.

Aims

To produce continuous, dense hedgerows that yield an abundance of flowers and fruit.

To provide suitable hedgerow structure for farmland wildlife that uses hedgerows as a habitat.

For the hedgerow:

- to be continuous with a minimum of gaps along the length
- to have twiggy growth close to the ground
- to be dense with a high number of stems per length of hedgerow
- to have a substantial hedge volume
- to produce abundant flowers and fruits on the length of the hedgerow
- to have frequent standard trees

- to have an unfertilised and unsprayed margin sufficiently wide to protect the hedgerow from negative impacts

Management

- Follow the Universal Code.
- Maintain the hedge to be continuous with a maximum of 5% gaps along the length.
- Double fencing must be in place, stock proof and maintained, where livestock have access to both sides of the hedge. Fencing is not essential on arable land where there is no grazing. Existing stockproof fencing at less than 3m width is acceptable, but replacement fencing must be at a minimum of 3m width. Where there are banks associated with the hedge, new fences should be at the base/heel of the bank (or wider) to avoid damage to the bank.
- Trim the hedgerow incrementally no more than once every three years, retaining a minimum of 10 centimetres growth each time the hedgerow is trimmed. Regular trimming is not essential, laying every 15 to 25 years is a good alternative.
- Any trimming should be undertaken between 1st November and 28 February.
- Over time, allow the hedge to reach minimum dimensions of 2.5 metres wide by 3 metres high or 3 metres wide by 2.5 metres high.
- Once the hedge has reached 3 metres by 2.5 metres, chose one of the options below:
 - Continue to incrementally trim allowing the hedgerow to slowly increase in size;
 - Trim the hedgerow no more than once every three years but maintaining the 3 metres x 2.5 metres volume;
 - Rejuvenate the hedgerow through laying or coppicing and return to incrementally trimming once every three years until the hedge reaches 3 metres by 2.5 metres again;
 - Enter a period of no trimming, before rejuvenating the hedge through laying or coppicing.
- You must maintain or establish at least one native hedgerow tree on average for every 50 metres of hedgerow. You should meet this requirement on a field parcel basis. Derogations to this requirement should be requested in areas where wading birds breed.

- Where you need to establish hedgerow trees to meet this requirement, this can be achieved by either:
 - identifying hedgerow plants that have the potential to develop into hedgerow trees and allowing these to grow up, or
 - by planting new standard trees within the hedgerow.
- On grassland, leave an uncultivated, unfertilised and unsprayed margin to the hedgerow at least 3 metres wide, measured out from the edge of the hedge base.
- On arable land, leave an unfertilised and unsprayed margin to the hedgerow at least 3 metres wide, measured out from the edge of the hedge base. The 2 metres nearest to the hedge must be uncultivated to allow perennial vegetation to develop. The 1m nearest to the crop may be cultivated annually but left fallow without a crop.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not cut or fell any hedgerows or trees between 1 March and 31 October, unless:
 - The hedgerow or tree overhangs a highway, road, track or footpath to which the public have access, and the work is necessary because the overhanging vegetation:
 - obstructs the passage of vehicles or pedestrians
 - obstructs the view of drivers, or the light from a public lamp
 - is a danger to horse-riders
 - The hedgerow or tree needs to be cut or trimmed because it is dead, diseased or damaged or insecurely rooted, and is likely to cause danger by falling onto a highway, road or footpath.
 - The cutting or trimming is carried out in order to maintain a ditch.
 - There is an enforcement notice issued by the Local Authority under the Highways Act 1980 Section 154 in order that the passage of vehicles or pedestrians is not obstructed or endangered, it is considered that the hedge and/or branches of trees at the locations described require trimming/lopping or pleaching.
 - You must complete the Activity Diary and retain evidence of why trees and/or hedgerows have been cut / trimmed between 1 March and 31 October and make this available at inspection if requested.

- Do not remove deadwood (except as part of rejuvenation management), unless it presents a demonstrable hazard.
- Do not supplementary feed within 5m of the hedgerow.
- Do not burn vegetation or other materials within 5m of the hedgerow.
- Do not use the hedgerow margin as a track.
- Do not use the hedge margin to store materials or machinery.

Z139 - Highly modified peatland: restoration

Description

This action is designed to restore natural vegetation and the natural function of the peatland.

This action is aimed at the restoration of peat soils which no longer support semi-natural peatlands as a result of historical agricultural improvement; this will usually have been accompanied by extensive drainage. Peat soils under these land-cover types will be significant net sources of greenhouse gases to the atmosphere, with associated degradation (including shrinkage) of peat soils.

Where to apply

This action should be used on areas with deep peat soils which are not defined as habitat land. The land-cover of such areas may include arable, improved grassland, or poor quality semi-improved grassland.

It is expected that this action will be taken forward together with the Supplementary Action to **Raise water levels on improved land** applied on the same piece of land.

This action will require specialist advice to support implementation.

Aims

To restore semi-natural vegetation that will protect the store of carbon locked up in the underlying peat and which has the potential to begin forming new peat over time.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Adhere to the restoration plan agreed with your Field Support Officer.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - Frequent, small bare patches (up to 10% of the area), allowing an increasing number of wetland plants and mosses to establish over time.

- To prevent poaching and compaction. Remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and feeding areas is acceptable provided that poached and bare ground make up less than 10% cover across the peatland area.
- Introduce native wetland species such as bog-moss (*Sphagnum* species) in to scrapes or more widely if water levels are generally near the soil surface for much of the year.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not graze between 1st November and 31st March
- Do not burn any vegetation.
- Do not excavate new pools or watering holes.
- Do not clear or de-weed existing ditches/grips unless in agreement with your Field Support Officer.
- Do not plant any trees.
- Do not roll or chain harrow at any time of year.
- Do not use the peatland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your farm advisor that are necessary to restore the peatland. These are likely to include works such as:

- Where rushes are dominant, cutting and baling to reduce rush dominance for up to three years before raising water levels.

- Creating shallow scrapes by removing surface vegetation and root material to a depth of no more than 10 cm to encourage recolonisation by native wetland species.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z140 - Improved grassland: short sward for geological landform

Description

This action is designed to maintain a short grass sward where there is an important geological landform. This will allow the landform to be clearly seen for potential research or educational purposes.

Where to apply

To be used on areas of improved grassland where it is important to be able to see the geological landform.

Aims

- To allow important geological landform features to be visible.
- To maintain the grassland as permanent pasture with a low sward height.

Management Requirements

- For geological landforms, maintain a low sward height at or below 15 centimetres throughout the year or as agreed with your Field Support Officer.
- Prevent dead plant material (leaf litter) forming large patches and keep to less than 10% cover across the grassland area.
- Prevent coarse/tall grasses from becoming dominant, apart from in patches covering no more than 5% of the grassland.
- Grazing should be sufficient to prevent most scrub and bracken encroachment, but other control measures may sometimes be necessary to prevent spread onto the grassland.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or invasive non-native species in the Activity Diary.

- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not plant trees or shrubs on the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage the grassland.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z142 – Highly modified peatland: enhanced management

Description

This action is aimed at the management of peat soils which no longer support semi-natural peatlands as a result of historical agricultural improvement; usually accompanied by extensive drainage. Peat soils under these land-cover types will be significant net sources of greenhouse gases to the atmosphere, with associated degradation (including shrinkage) of peat soils. This action is designed to reduce the extent to which these peat soils degrade further.

Where to apply

This action should be used on areas with deep peat soils which are not defined as habitat land. The land-cover of such areas may include arable, improved grassland, or semi-improved grassland.

Action to raise water levels on highly modified peatlands is the subject of a separate Supplementary Action for **Raise water levels on improved land**.

Action to create semi-natural wetland vegetation on highly modified peatland is covered by the separate Optional Action **Highly Modified Peatland: restoration**.

Aims

- To reduce the degradation of peat soils which do not support habitat land and consequently to reduce carbon emissions from these soils.
- To prevent the exposure of peat soils as a result of overgrazing or erosion.
- To contribute to the resilience of connected areas of peatland supporting semi-natural peatland habitat.
- To improve the habitat value of highly modified peatland for priority species such as curlew.
- Where selected, to ensure the success of associated Optional Actions concerning the raising of water levels.

Management Requirements

- Follow the Universal Code.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- For grazed land, adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Prevent encroachment of trees, scrub and bracken onto the peatland
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Management Restrictions

- Do not clear out existing ditches.
- Do not roll or chain-harrow at any time of year.
- Do not use for off-road non-agricultural vehicle activities.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Z143 - Coastal: allow saline intrusion on improved land

Description

Saline intrusion is occurring within low lying areas close to the sea and along estuaries. With sea level rise, saline intrusion can occur by sea water filtering inland through sediments or inputs through overtopping of sea walls. This can bring about a change in vegetation, sometimes there will be an initial loss of vegetation followed by colonisation of salt tolerant plants. Managing change will allow the development of plants which can grow in saline conditions. Buffer zones between the areas of saline intrusion are important as the saline intrusion will increase over time.

Where to apply

This action should be carried out where saline intrusion is occurring on improved grasslands adjacent to the sea or estuaries. This action is particularly appropriate in areas where there is a risk of tidal flooding and where the Shoreline Management Plan policy is 'no active intervention' or 'managed realignment'.

See our maps to find out where these policies apply Natural Resources Wales / Check your coastal erosion risk (National Coastal Erosion Risk Management map).

Aims

- To allow intrusion of saline water in low lying coastal locations where there is improved grassland, without interventions, to prevent the saline intrusion.
- To allow the development of saline vegetation.
- To create an appropriate buffer zone to accommodate further spread and allow an area of vegetation which is not intensively managed.

Management Requirements

Where areas of saline intrusion has occurred and salt tolerant vegetation has developed or is developing:

- Follow the Universal Code including Part 2, Biodiversity and Habitats.
- Manage the vegetation to allow salt tolerant species to establish.

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% of the area of saline intrusion and buffer zone.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not carry out drainage within areas where saline intrusion is occurring or modify any developing creeks, pans, hollows or interfere with any natural and dynamic changes such as changes due to storms.
- Do not apply gypsum or any substance that lowers salinity.
- Do not attempt to stop the saline intrusion for example by installing sheet piling and/or upgrading of flood banks.
- Do not construct tracks, roads, yards, hardstanding, or any new structures.
- Do not cut rushes between 15th March and 15th July
- Do not cut more than 30% of rush or weed species in any one year.

Z144 - Coastal: allow saline intrusion on habitat land

Description

Saline intrusion is occurring within low lying areas close to the sea and along estuaries. With sea level rise, saline intrusion can occur by sea water filtering inland through sediments or inputs through overtopping of sea walls. This can bring about a change in vegetation, sometimes there will be an initial loss of vegetation followed by colonisation of salt tolerant plants. Managing change will allow the development of plants which can grow in saline conditions. Buffer zones between the areas of saline intrusion are important as the saline intrusion will increase over time.

Where to apply

This action should be carried out where saline intrusion is occurring on habitat land adjacent to the sea or estuaries. This action is particularly appropriate in areas where there is a risk of tidal flooding and where the Shoreline Management Plan policy is 'no active intervention' or 'managed realignment'.

See our maps to find out where these policies apply Natural Resources Wales / Check your coastal erosion risk (National Coastal Erosion Risk Management map).

Aims

- To allow intrusion of saline water in low lying coastal locations where there is habitat land, without interventions, to prevent the saline intrusion.
- To allow the development of saline vegetation.
- To create an appropriate buffer zone to accommodate further spread and allow an area of vegetation which is not intensively managed.

Management Requirements

Where areas of saline intrusion has occurred and salt tolerant vegetation has developed or is developing:

- Follow the Universal Code
- Manage the vegetation to allow salt tolerant species to establish.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching

around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% of the area of saline intrusion and buffer zone.

- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not carry out drainage within areas where saline intrusion is occurring or modify any developing creeks, pans, hollows or interfere with any natural and dynamic changes such as changes due to storms.
- Do not apply gypsum or any substance that lowers salinity.
- Do not attempt to stop the saline intrusion for example by installing sheet piling and/or upgrading of flood banks.
- Do not construct tracks, roads, yards, hardstanding, or any new structures.
- Do not cut rushes between 15th March and 15th July
- Do not cut more than 30% of rush or weed species in any one year.

Z145 - Coastal: restore natural processes on improved land

Description

This action is to increase resilience to climate change (sea-level rise and storminess) and support coastal landforms and habitats by working with and restoring natural processes.

Where to apply

This action is particularly appropriate in areas where the Shoreline Management Plan policy is 'no active intervention' or 'managed realignment'.

This action should be applied at the coast where there are man-made structures, such as flood defences, erosion control measures, or where there have been deliberate alterations to saltmarsh creeks or estuarine channels. This action could be considered alongside the optional actions for 'allow saline intrusion' and 'create saltmarsh'.

Aims

- To maintain and restore natural physical processes at the coast and within estuaries. Physical processes refers to the effect of waves, tidal currents and sediment transport on the topography (or form) of the coastal or estuary shore. Man-made structures can impact the natural functioning of these systems.
- To maintain physical processes, water and sediment should be allowed to move naturally, allowing mud, sand, gravel and shingle to be eroded and deposited without human intervention. For example, sediment deposited onto land, as a result of storms, should be left in situ. Natural erosion should be allowed to occur at the coast and within estuaries without intervention.
- To restore natural physical processes, man-made structures, such as flood banks, gabions, boulders (which are not naturally present), tidal flaps and sheet piling, should be removed or allowed to deteriorate over time at appropriate locations.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats
- Agree a management plan with your Field Support Officer to remove man-made structures which impede natural processes.

- Enable natural processes to function, as follows:
 - Allow sediment loss, deposition and change. Sediment should be left in place and not be removed or pushed back onto a shingle ridge or beach.
 - Where channels or creeks widen or begin to change course, do not attempt to shore-up banks with stone or other hard materials, but allow the channel to change through the natural processes.
 - Allow erosion of land due to natural processes, such as coastal erosion from the sea.

- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not shore-up banks with stone or other hard materials

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to restore natural processes.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z146 - Coastal: restore natural processes on habitat land

Description

This action is to increase resilience to climate change (sea-level rise and storminess) and support coastal landforms and habitats by working with and restoring natural processes.

Where to apply

This action is particularly appropriate in areas where the Shoreline Management Plan policy is 'no active intervention' or 'managed realignment'.

This action should be applied at the coast where there are man-made structures, such as flood defences, erosion control measures, or where there have been deliberate alterations to saltmarsh creeks or estuarine channels. This action could be considered alongside the optional actions for 'allow saline intrusion' and 'create saltmarsh'.

Aims

- To maintain and restore natural physical processes at the coast and within estuaries. Physical processes refers to the effect of waves, tidal currents and sediment transport on the topography (or form) of the coastal or estuary shore. Man-made structures can impact the natural functioning of these systems.
- To maintain physical processes, water and sediment should be allowed to move naturally, allowing mud, sand, gravel and shingle to be eroded and deposited without human intervention. For example, sediment deposited onto land, as a result of storms, should be left in situ. Natural erosion should be allowed to occur at the coast and within estuaries without intervention.
- To restore natural physical processes, man-made structures such as flood banks, gabions, boulders (which are not naturally present), tidal flaps and sheet piling should be removed or allowed to deteriorate over time at appropriate locations.

Management Requirements

- Follow the Universal Code
- Agree a management plan with your Field Support Officer to remove man-made structures which impede natural processes.

- Enable natural processes to function, as follows:
 - Allow sediment loss, deposition and change. Sediment should be left in place and not be removed or pushed back onto a shingle ridge or beach.
 - Where channels or creeks widen or begin to change course, do not attempt to shore-up banks with stone or other hard materials but allow the channel to change through the natural processes.
 - Allow erosion of land due to natural processes such as coastal erosion from the sea.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not shore-up banks with stone or other hard materials

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to restore natural processes.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z147 - River: restore natural processes

Description

This action focuses on bringing our rivers and streams back to an improved natural condition. By removing man-made barriers and allowing the river to follow its natural course, it can improve wildlife habitats, restore river features, reduce downstream flooding and make the landscape more resilient to climate change.

Where to apply

This action should be applied along rivers, streams and floodplains where there are man-made structures such as flood embankments, hard bank protection, weirs or other small-scale structures preventing natural processes.

Aims

- To maintain and restore natural physical processes along streams and rivers.
- To allow water and sediment to move naturally, allowing erosion and deposition without human intervention. For example, erosion should be allowed to naturally occur and sediment deposited onto land, as a result of the river overtopping its banks, should be left *in situ*.
- To restore natural physical processes, man-made structures such as flood banks, gabions, boulders (which are not naturally present), and sheet piling should be removed from appropriate locations.

Management Requirements

- Follow the Universal Code.
- Agree a management plan with your Field Support Officer to remove man-made structures which impede natural processes.
- Enable natural processes to function, as follows:
 - Allow sediment loss, deposition and change. Sediment should be left in place and not be removed or pushed back in to the channel.
 - Where channels widen or begin to change course, do not attempt to shore-up banks with stone or other hard materials, but allow the channel to change through these natural processes.
 - Allow erosion of land due to natural processes.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not plant trees without agreement from your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to restore natural processes of the river.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z150 - Improved grassland: management for dung invertebrates

Description

This action provides suitable conditions for dung invertebrates, such as dung beetles, to thrive. This will provide a food supply for certain species of bats and birds that depend upon dung invertebrates as a food source, for example horseshoe bats and chough.

This will be achieved by grazing with appropriate livestock and reducing worming products that persist in dung and kill dung invertebrates.

Dung invertebrates are not only important to wildlife, their actions also help aerate soil, decrease compaction, reduce erosion & flooding, recycle nutrients back into the soil and help reduce parasite burdens in livestock.

Where to apply

This action should be applied on improved grasslands, as a stand-alone action where a habitat action is not required.

This action should be used where there are species that rely on a healthy population of dung invertebrates for feeding.

Aims

- To provide a healthy population of dung invertebrates as a food supply for certain species of bats and birds.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Manage by continuously grazing from 1 March to 31 October each year. Grazing breaks of a maximum of 6 weeks are permissible if essential for stock management.
- Adhere to the grazing plan agreed with your Field Support Officer (FSO).
- Ensure that grazing animals have not been treated with avermectin products from 1 February to 31 October. If anthelmintic treatment is necessary, use a product with an alternative active ingredient to avermectin and keep grazing animals in housing or on alternative grazing for 48 hours after treatment.

- Keep an Activity Diary for each year and make it available as required, including medicine book records for worm treatments of stock grazing on the area.
- Keep an Activity Diary with details on stocking to identify which individual animals have grazed the area from 1 March to 31 October and for how long.

Management Restrictions

- Do not cultivate or reseed.
- Do not roll or chain harrow between 15 March and 15 July.
- Do not use pesticides, except herbicides to spot treat and control injurious weeds.
- Do not use for non-agricultural vehicle activities or as a track.

Z202 - Supplementary action: grazing with heavy stock

Description

This action requires grazing with heavy grazing animals, such as cattle and equines, which are less selective grazers than sheep, and can eat less palatable forage and/or trample coarse vegetation which is threatening to dominate a habitat.

Where to apply

This supplementary management payment may be applied in addition to any habitat action where grazing by heavy stock such as cattle and equines would be beneficial.

Aims

- To prevent the dominance of competitive plants, such as bracken, and encourage a range of different plant species to flourish.
- To create vegetation at different heights and small areas of bare ground.
- To provide a variety of habitats, in both structure and plant species, for a wide range of wildlife.

Management

- Follow the Universal Code.
- A minimum of 70% of the livestock units (LSU) must be grazing cattle and/or equines (or other heavy stock as agreed with your Field Support Officer (FSO)) in each calendar year.
- Adhere to the grazing plan agreed with your FSO as part of the habitat action.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

Not applicable

Z203 - Supplementary action: reduced stocking rate

Description

This action requires lower grazing rates than those usually recommended for the habitat. This may also include complete exclusion of stock. Reduced grazing, usually for a limited period of time, is sometimes required to restore habitats that are in a declining state due to inappropriate grazing levels. Reduced grazing can also promote the growth of different vegetation, for example, heathland plants on grassland, or tree regeneration in wood pasture.

Where to apply this supplementary action

This supplementary action may be applied in addition to any habitat action where levels of grazing below the rates or duration set out in the habitat action would be beneficial for the habitat.

Aims

- To aid restoration of damaged habitats.
- To change the vegetation type, where this is the conservation aim.

Management

- Follow the Universal Code.
- Reduce or exclude stock according to the grazing plan agreed with your Field Support Officer (FSO) as part of the habitat action.
- Keep an Activity Diary and make it available as required. Include grazing levels and actions such as weed control and capital works.

Restrictions

Not applicable

Z204 - Supplementary action: raising water levels on improved land

Description

This action provides a supplementary payment where it is desirable to restore the natural water table or natural water flow. Raising water levels often has benefits of slowing water flow and benefiting wildlife. Where water levels are raised on improved grassland over peat soils, it stops the peat from drying and degrading.

Where to apply

This action is only available on improved land in combination with other land management activities. These activities include the list below, but the supplement could be applied alongside other management actions or capital works on improved land with specialist advice.

- Floodplain meadow: creation
- Wet grassland: creation for breeding waders
- Wet grassland: creation for wintering waders and waterbirds
- Grazing marshes
- Running water: capital works to create leaky dam
- Running water: capital works to reconnect river to its floodplain
- Intensive grassland: no input permanent grassland
- Arable: convert to permanent pasture on land at risk of soil erosion
- Arable crops or improved grassland on highly modified peat soils

Aims

- To restore the natural water table or water flow.
- To provide suitable hydrological conditions to restore an existing habitat or to create a new habitat, and/or to reduce greenhouse gas emissions from organic soils.
- To provide space for water storage during peak water flows.
- To provide habitat for species that require a high-water table.
- To protect peat from drying and oxidation.

Management

- Follow the Universal Code, including Part 2 – Biodiversity and Habitats.

- Raise and maintain raised water levels across the area under this action.
- The exact height, timing and method for raising water levels will depend upon the individual site and the required outcomes and will be agreed with your Field Support Officer (FSO). Associated capital works will be available to undertake the necessary changes.

Restrictions

Not applicable

Z205 - Supplementary action: raised water levels on habitat land

Description

This Supplementary Action provides a supplementary payment where it is desirable to restore the natural water table or natural water flow. Raising water levels often has benefits of slowing water flow and benefiting wildlife.

Where to apply

This Supplementary Action is only available on habitat land (excluding deep peat) and in combination with other land management actions. These actions include the list below, but this Supplementary Action could be applied alongside other management actions or capital works on habitat land, with specialist advice, such as:

- Floodplain meadow: enhanced management
- Wet grassland: enhanced management for breeding waders
- Wet grassland: enhanced management for wintering waders and waterbirds
- Lowland marshy grassland
- Woodland: enhanced management, light grazing
- Lowland wet heath: enhanced management
- Lowland and coastal heath: restoration
- Upland habitat mosaic: enhanced management
- Reedbed: enhanced management
- Coastal grazing marshes
- Running water: capital works to create leaky dam
- Running water: capital works to reconnect river to its floodplain

Aims

- To restore the natural water table or water flow.
- To provide suitable hydrological conditions to restore an existing habitat.
- To provide space for water storage during peak water flows.
- To provide habitat for species that require a high-water table.

Management

- Follow the Universal Code.
- Raise and maintain raised water levels across the area under this action.
- The exact height, timing and method for raising water levels will depend upon the individual site and the required outcomes and will be agreed with your

Field Support Officer (FSO). Associated capital works will be available to undertake the necessary changes.

Restrictions

Not applicable

Z206 - Supplementary action: raised water levels on peatland

Description

This Supplementary Action is to restore the natural water table on deep peat. This will stop the peat from drying out and degrading. Raising water levels often also has benefits of slowing water flow and providing habitat for wildlife.

Where to apply

This Supplementary Action is only available on deep peat soils with semi-natural vegetation cover and in combination with other land management actions. These actions include the list below, but this Supplementary Action could be applied alongside other management actions or capital works on peatland with specialist advice, such as:

- Upland habitat mosaic: enhanced management
- Lowland bog : enhanced management
- Lowland fen: enhanced management
- Peatland: restoration, re-introduction of grazing

Aims

- To protect peat from drying and oxidation.
- To restore the natural water table.
- To provide suitable hydrological conditions to restore peatland habitat and/or to reduce greenhouse gas emissions from organic soils.
- To increase water storage capacity and slow water flow.
- To provide habitat for species that require a high water table.

Management

- Follow the Universal Code.
- Raise and maintain raised water levels across the area under this action.
- The exact height, timing and method for raising water levels will depend upon the individual site and the required outcomes and will be agreed with your Field Support Officer (FSO). Associated capital works will be available to undertake the necessary changes.

Restrictions

Not applicable

Z207 - Supplementary action: restrictions on avermectins

Description

This Supplementary Action provides suitable conditions for dung invertebrates, such as dung beetles, to thrive. This may be required for the dung invertebrates themselves or to provide a food supply for certain species of bats and birds, for example horseshoe bats and chough.

This will be achieved by reducing worming products that persist in dung and kill dung invertebrates.

Dung invertebrates are not only important to wildlife, but their actions also help aerate soil, decrease compaction, reduce erosion & flooding, recycle nutrients back into the soil and help reduce parasite burdens in livestock.

Where to apply

This Supplementary Action can only be used as a Supplementary Action alongside a habitat action.

This Supplementary Action should be used where there are important dung invertebrate populations or where there are species present that require a healthy population of dung invertebrates as a food supply.

Aims

- To provide a healthy population of dung invertebrates.

Management

- Follow the Universal Code.
- Keep an Activity Diary and make it available as required.
- Keep a Stocking Diary to identify which individual animals have grazed the area.
- Make available, as required, medicine book records for worm treatments of stock grazing on the area.

Restrictions

- Ensure that grazing livestock have not been treated with products containing avermectin four weeks prior to grazing the area covered by this action.

Z301 - Freshwater: waterside corridor with vegetation management

Description

This action provides management for riverside and lakeside corridors that require some degree of vegetation management. Vegetation management prevents the corridor from becoming dense woodland or scrub and provides dappled rather than dense shade. Maintaining scattered shrubs and trees allows some direct sun light to reach the river channel or lake to provide heat and light for important species such as invertebrates that live in shingle banks or mosses growing on boulders. The open structure also provides good habitat for water voles.

Waterside corridors provide shade to cool the water and prevent silt and pollution entering the river or lake. The corridors will also support wildlife. Once established, the vegetation can help to prevent bank erosion.

Where to apply

This action should be applied directly adjacent to a freshwater body. It can be applied adjacent to running water and lakes.

This action is appropriate for waterbodies that support important invertebrate populations on shingle banks, moss and/or liverwort populations on boulders and water vole populations.

Aims

To provide habitat for aquatic wildlife and wildlife that uses land adjacent to water bodies.

To provide shade and prevent silt and pollution entering the river or lake.

To reduce soil erosion.

To manage natural vegetation, including scattered trees and shrubs, along the riverbank or lake edge.

To support delivery of biodiversity, water quality, flood and drought management through the correct location and width of the corridor.

Management

- Follow the Universal Code.
- On arable land, where livestock never have access to the waterside, manage the corridor to the specifications agreed with your Field Support Officer (FSO) by:
 - Continuing with no cultivation and no other arable management practices.

- On land where livestock do have access to the waterside, manage the corridor to the specifications agreed with your FSO by:
 - Installing or maintaining fencing for the term of the grant award from Welsh Government.
 - Retaining or installing gates to allow access to the corridor for management.
- Agree the management of the corridor with your FSO. This management will include stock exclusion for the majority of time. In addition, management will also include short bursts of grazing, cutting/mowing vegetation and/or coppicing a proportion of shrubs and trees. If the agreed management includes sporadic grazing by stock, then ensure temporary stockproof fencing is installed and used while stock are present to prevent access to water.
- Allow any natural dynamic river processes, such as erosion and deposition, to occur.
- Where practical, remove all non-biodegradable debris left by flooding and dispose of it appropriately.
- Ensure that any activities, such as cultivations, spraying, applications of fertilisers or burning undertaken in adjoining areas, do not impact the corridor.

Restrictions

- Do not graze the area, unless agreed with your FSO.
- Do not fell or coppice trees, unless agreed with your FSO.
- Do not cut or top vegetation, unless agreed with your FSO, except to control injurious weed species.
- Do not remove fallen wood in the channel or on the corridor (unless there is a justified risk of the material causing a blockage).
- Do not remove natural debris left by flooding.
- Do not carry out any ditch maintenance or modify drainage, unless agreed with your FSO.
- Do not install bank protection, unless required to protect essential infrastructure e.g. pipes, bridges, roads.

- Do not use for non-agricultural vehicle activities or as a track. The use of existing crossing points for field activities is acceptable.

Capital works

Undertake any capital works agreed with your FSO to control invasive non-native species.

Undertake any capital works agreed with your FSO that are necessary to manage and/or restore the habitat.

Z302 - Freshwater: waterside corridor creation

Description

This action creates new woody riverside and lakeside corridors; these are important to protect and enhance river and lake habitat. Waterside corridors provide shade to cool the water and prevent silt and pollution entering the river or lake. The corridor will also support wildlife. Once established, the vegetation can help to prevent bank erosion.

Where to apply

This action should be applied directly adjacent to a freshwater body. It can be applied adjacent to running water and lakes.

Aims

- To provide habitat for aquatic wildlife and wildlife that uses land adjacent to water bodies.
- To provide shade and prevent silt and pollution entering the river or lake.
- To reduce soil erosion.
- To allow the development of natural vegetation, including trees and shrubs, along the riverbank or lake edge.
- To support delivery of biodiversity, water quality, flood and drought management through the correct location and width of the corridor.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- On arable land, where livestock never have access to the waterside, establish a corridor to the specifications agreed with your Field Support Officer by:
 - Stopping cultivation and any other arable management practices.
 - Allowing the natural establishment of trees and shrubs.
- On land where livestock do have access to the waterside, establish a corridor to the specifications agreed with your Field Support Officer by:
 - Erecting fencing the agreed distance from the river or lake
 - Installing gates to allow access to the corridor for management

- Retaining the fencing for the term of the grant award from the Welsh Government
- Allowing the natural establishment of trees and shrubs
- Excluding all livestock from the corridor
- Allow any natural dynamic river processes, such as erosion and deposition, to occur.
- Where, practical, remove all non-biodegradable debris left by flooding and dispose of it appropriately.
- Ensure that any activities undertaken in adjoining areas, such as cultivations, spraying, applications of fertilisers or burning, do not impact the corridor.

Management Restrictions

- Do not graze the area.
- Do not fell or coppice trees without permission from your Field Support Officer.
- Do not cut or top vegetation except to control injurious weed species.
- Do not remove fallen wood in the channel or on the corridor (unless there is a justified risk of the material causing a blockage).
- Do not remove natural debris left by flooding.
- Do not carry out any ditch maintenance or modify drainage, unless agreed with your Field Support Officer.
- Do not install bank protection unless required to protect essential infrastructure e.g. pipes, bridges, roads.
- Do not use for non-agricultural vehicle activities or as a track. The use of existing crossing points for field activities is acceptable.

Z303 - Freshwater: waterside corridor creation with vegetation management

Description

This action creates new riverside and lakeside corridors that will have some degree of vegetation management. Vegetation management prevents the corridor from becoming dense woodland or scrub and provides dappled rather than dense shade. Maintaining scattered shrubs and trees allows some direct sun light to reach the river channel or lake to provide heat and light for important species, such as invertebrates, that live in shingle banks or mosses growing on boulders. The open structure also provides good habitat for water voles.

Waterside corridors provide shade to cool the water and prevent silt and pollution entering the river or lake. The corridors will also support wildlife. Once established, the vegetation can help to prevent bank erosion.

Where to apply

This action should be applied directly adjacent to a freshwater body. It can be applied adjacent to running water and lakes.

This action is appropriate for waterbodies that support important invertebrate populations on shingle banks, moss and/or liverwort populations on boulders and water vole populations.

Aims

- To provide habitat for aquatic wildlife and wildlife that uses land adjacent to water bodies.
- To provide shade and prevent silt and pollution entering the river or lake.
- To reduce soil erosion.
- To allow the development of natural vegetation, including scattered trees and shrubs, along the river bank or lake edge.
- To support delivery of biodiversity, water quality, flood and drought management through the correct location and width of the corridor.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- On arable land, where livestock never have access to the waterside, establish a corridor to the specifications agreed with your Field Support Officer by:
 - Stopping cultivation and any other arable management practices.
 - Allowing natural vegetation to establish.
- On land where livestock do have access to the waterside, establish a corridor using capital infrastructure to the specifications agreed with your Field Support Officer by:
 - Erecting fencing the agreed distance from the river or lake
 - Installing gates to allow access to the corridor for management
 - Retaining the fencing for the term of the grant award from Welsh Government
 - Allowing natural vegetation to establish.
- Agree the management of the corridor with your Field Support Officer. This management will include stock exclusion for the majority of time. In addition, management will also include short bursts of grazing, cutting/mowing vegetation and/or coppicing a proportion of shrubs and trees. If the agreed management includes sporadic grazing by stock, then ensure temporary stockproof fencing is installed and used while stock are present to prevent access to water.
- Allow any natural dynamic river processes, such as erosion and deposition, to occur.
- Where practical, remove all non-biodegradable debris left by flooding and dispose of it appropriately.
- Ensure that any activities, such as cultivations, spraying, applications of fertilisers or burning undertaken in adjoining areas, do not impact the corridor.
- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not graze the area unless agreed with your Field Support Officer.
- Do not fell or coppice trees unless agreed with your Field Support Officer.

- Do not cut or top vegetation except to control injurious weed species.
- Do not remove fallen wood in the channel or on the corridor (unless there is a justified risk of the material causing a blockage).
- Do not remove natural debris left by flooding.
- Do not carry out any ditch maintenance or modify drainage, unless agreed with your Field Support Officer.
- Do not install bank protection unless required to protect essential infrastructure e.g. pipes, bridges, roads.
- Do not use for non-agricultural vehicle activities or as a track. The use of existing crossing points for field activities is acceptable.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage the corridor.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z304 - Freshwater: new pond/scrape creation

Description

This action is to create a new pond or scrape for wildlife.

Relative to their size, small areas of open water are extremely biodiverse. Ponds and scrapes are a key habitat for many types of wildlife, as well as being an important water source and feeding location for terrestrial wildlife.

Where to apply

This action should be applied:

- On improved land.
- On certain habitats with the agreement of your Field Support Officer.
- Ponds and scrapes should be created in a low-lying location in the landscape where clean water tends to collect. The best locations are where the pond/scrape is fed by groundwater, rainwater or surface water draining from relatively low intensity land.
- Do not site the pond/scrape where it could receive water from a nutrient-rich situation, such as a yard or field on which manures or slurry are regularly spread.
- Do not create by damming an existing watercourse. You may, however, widen an existing field ditch.
- Do not site under or close to trees, where the pond/scrape will receive heavy leaf fall, unless there is some flow entering the pond.
- Do not site where the landowner had a licence to spread sheep dip.
- This action should also be used to reinstate ponds where ponds used to be located and now used for grazing.
- Ponds that have less than 30% open water should be restored using the pond restoration capital works.
- Ponds that have 30% or greater area of open water should be restored through Universal Action 5.

- Capital works can be claimed to undertake the work to create or restore the scrape or pond.

Aims

- To create one or more wildlife ponds or scrapes OR to reinstate one or more ponds that are overgrown and silted up to benefit terrestrial wildlife, by:
 - Creating or restoring **ponds** that are between 10m² and 1 hectare in area, with shallow sloping margins, and that hold water for at least 9 months of the year in a normal rainfall year.
 - Creating **scrapes** of between 10m² and 1000m² that hold water for at least 6 months of the year.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Allow local wild pond plants and animals to colonise naturally.
- Maintain a 10m buffer area of suitable management around the pond/scrape (see restrictions below).

Management Restrictions

- Do not plant with pond plants, as these often include invasive non-native species.
- Do not release fish or other animals into the pond/scrape.
- Do not remove fallen wood in or adjacent to the pond/scrape.
- Do not plough or cultivate within 10m of the pond/scrape.
- Do not feed livestock or wildfowl within 20m of the pond/scrape.
- Do not apply inputs of any kind within 10m buffer of the pond/scrape.

- Do not allow uncontrolled access to livestock resulting in excessive trampling of the pond banks. Drinking bays may be acceptable with approval from your Field Support Officer (FSO)
- Do not apply pesticides, except for the purposes of invasive non-native species or injurious weed control where herbicides are identified as the most effective control option.
- Do not use for vehicle activities or washing vehicles.

Capital Works

Reinstate/create the pond or scrape as specified by the relevant capital works specification.

Undertake any capital works agreed with your Field Support Officer (FSO) that are necessary to create and manage the pond or scrape. This may include items such as fencing or tree removal.

Z305 - Floodplain meadow: creation on improved land

Description

New species-rich floodplain grasslands can be created by seed addition (sward enhancement) combined with hay meadow management.

These grasslands provide a wide range of ecosystem services, including pollinator habitat, valuable space for floodwaters, improved river water quality through trapping of sediments and nutrients, and capture of soil carbon to increase climate resilience.

Where to apply

This action can be applied to arable land or improved grassland within a lowland river floodplain that has potential to become a species-rich floodplain grassland.

It is most appropriate for sites with low to moderate soil fertility and should not be undertaken on severely compacted sites.

Sites which already support some indicator plant species, such as meadowsweet and great burnet can be considered for the Floodplain Meadow Enhanced Management and Restoration action.

Aims

- To create a species-rich floodplain hay meadow through sward enhancement and hay meadow management.
- A variety of native plant species are able to flower and produce seed and native animals, including bumblebees, butterflies and other invertebrates, can thrive.
- To have at least two positive indicator plant species occasional or frequent after five years of management.
- By the end of year five of management, agricultural species, such as ryegrass and white clover, are absent or at low cover and invasive tall sedges, such as lesser pond-sedge, and large bulky grasses, such as cock's-foot, are not abundant.
- Scrub and trees do not encroach across the grassland.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Provide soil test results, including available phosphorus, using the 'Olsen P test', both before June in the first year and in the last year of management.
- If the initial soil test shows available soil phosphorus levels at no more than 25 milligrams per litre (Olsen's index 0 to 2), proceed to introducing species into the meadow.
- If the initial soil test shows available soil phosphorus levels at more than 25 milligrams per litre (Olsen's index 2+), take a second hay cut no less than four weeks after the first for the first three years of management, before proceeding to introducing species into the meadow. Remove the cut material from the site.
- Agree and implement a plan to introduce native floodplain grassland species into the meadow. This will include:
 - Create at least 50% bare ground before spreading green hay or over-sowing with seed.
 - Source and spread/over-sow green hay/seed (capital funding available).
 - Light grazing or light rolling to help 'bed in' the seed.
- In the following years after introducing species, the hay meadow must be shut off to livestock by 15 April.
- Cut and remove a hay or haylage crop between 15 June and 31 August.
- After seed is introduced, the hay must be field dried and turned or tedded before removal.
- The cut material must be removed from the meadow, even if spoiled by rain.
- A further hay cut may be taken as an alternative to aftermath grazing.
- Where the meadow will be grazed, use the grazing plan agreed with your Field Support Officer.
- Grazing should be adjusted from the rates in the plan where necessary, for example, where forage growth is adversely affected by weather conditions, to help achieve the following outcomes:

- If there is grazing in March or April, maintain a sward height where at least 75% of the sward is above 5 centimetres.
- During grazing of the aftermath and following sward enhancement, maintain a sward height where 75% of the grassland is 2 centimetres to 10 centimetres.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Prevent encroachment of trees and scrub onto the grassland.
- Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Top invasive tall sedges and large bulky grasses in late summer or autumn if these cover more than 10% of the grassland area.
- Maintain appropriate existing drainage infrastructure, including culverts, pipes, grips and ditches, to allow flood water to flow onto and off the field by gravity.
- Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not cut hay meadows to below 2 centimetres in height (except if in preparation for sward enhancement).
- Do not graze hay meadows until at least 4 weeks after the hay cut.
- Do not apply farmyard manure.
- Do not plough and minimise damage to the soil profile during bare ground creation for sward enhancement.

- Do not create new drainage ditches or drains without prior approval from the Field Support Officer.
- Do not plant trees or shrubs on the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Undertake any capital works agreed with your Field Support Officer that are necessary to manage and/or restore the habitat e.g. drainage infrastructure.

Z306 - Neutral Grassland: creation on improved land

Description

New species-rich neutral grasslands can be created by seed addition (sward enhancement) combined with hay meadow management.

These grasslands provide a wide range of ecosystem services, including pollinator habitat, a store of soil carbon and a supply of sustainably produced meat. Increasing the variety of deep-rooted perennial plants improves forage availability during extreme weather, such as drought.

Where to apply

This action can be applied to suitable arable land and temporary or improved grassland that has potential to become a species-rich neutral grassland.

It is appropriate for sites with low to moderate soil fertility, as high soil fertility limits the spread of most species-rich grassland indicator plants.

Sites already containing at least one frequent indicator plant species can be considered for Neutral Grassland Restoration or Neutral Grassland Hay Meadow or Pasture Enhanced Management actions.

Aims

- To create species-rich neutral grassland through sward enhancement and hay meadow management, where a variety of native plant species are able to flower and produce seed and native animals (including bumblebees, butterflies and other invertebrates) can thrive.
- To achieve at least two positive indicator plant species are occasional or frequent after five years of management.
- By the end of year five of management, agricultural species such as rye-grass and white clover are absent or at low cover and large bulky grasses, such as cock's-foot, are not abundant.
- Bracken, scrub and trees do not encroach across the grassland.

Management

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.

- Provide soil test results, including available phosphorus using the 'Olsen P test', both before June in the first year and in the last year of management.
- If the initial soil test shows available soil phosphorus levels at no more than 25 milligrams per litre (Olsen's index 0 to 2), proceed to introducing species into the meadow.
- If the initial soil test shows available soil phosphorus levels at more than 25 milligrams per litre (Olsen's index 3+), take a second hay cut no less than four weeks after the first for the first three years of management, before proceeding to introducing species into the meadow. Remove the cut material from the site.
- Agree and implement a plan to introduce native neutral grassland species into the meadow. This will include:
 - Create at least 50% bare ground before spreading green hay or over-sowing with seed.
 - Source and spread/oversow green hay/seed (capital funding available).
 - Light grazing or light rolling to help 'bed in' the seed.
- In the following years after introducing seed, the hay meadow must be shut off to livestock by 1 May.
- Cut and remove a hay or haylage crop between 7 July and 31 August (for sites above 250 metres altitude, cut between 15 July and 7 September).
- The cut hay/haylage must be field dried and turned at least once before removal.
- The cut material must be removed from the meadow, even if spoiled by rain.
- A further hay cut can be taken as an alternative to aftermath grazing.
- Where the meadow will be grazed, use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - If there is grazing in March or April, a sward height above 5 centimetres is maintained across at least 75% of the sward.

- During grazing of the aftermath growth and following sward enhancement, a sward height between 2 centimetres and 10 centimetres is maintained.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
- Prevent encroachment of trees, scrub and bracken onto the grassland.
- Lime may be applied to the meadow when soil pH has fallen below 5.5. Apply no more than once every five years to achieve a pH of up to 6.5.
- Light harrowing and/or light rolling may be undertaken, as long as soil compaction and excessive sward damage is avoided.
- Targeted cutting is an acceptable method of weed control. Keep a record of cutting or topping to control injurious weeds, nettles or non-native species in the Activity Diary.
- Top large bulky grasses in late summer or autumn if they cover more than 10% of the grassland area.
- Keep an Activity Diary each year and make it available as required.
- Minimise damage to the soil profile during bare ground creation for sward enhancement.

Management Restrictions

- Do not cut hay meadows to below 2 centimetres in height (except if in preparation for sward enhancement).
- Do not graze hay meadows until at least 4 weeks after the hay cut.
- Do not apply farmyard manure.
- Do not plough and.
- Do not plant trees or shrubs on the grassland.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer

Capital Works

Undertake any capital works agreed with your Field Support Officer necessary to manage and/or restore the habitat.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z307 - Saltmarsh: creation

Description

Historically, many of our saltmarshes have been claimed for agricultural land. This action is to restore saltmarsh habitat in areas which are vulnerable to tidal flooding. This action will increase resilience to climate change, in particular sea-level rise.

Where to apply

This action is for low lying areas adjacent to sea walls/flood banks where the Shoreline Management Plan policy is 'no active intervention' or 'managed realignment'.

See our maps to find out where these policies apply: Natural Resources Wales / Shoreline Management Plans

Following on from this action, the newly created saltmarsh will be entered into the 'Enhanced Management for Saltmarsh' action.

Aims

- To create new saltmarsh by breaching existing flood banks or sea walls to re-establish tidal inundation where suitable conditions allow.
- Once saltmarsh has become established (likely to take a minimum of 5 years), to support significant areas of closed vegetation without bare mud and that is firm enough to support grazing without excessive poaching.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- With specialist advice, agree a plan to create new saltmarsh.
- Do not graze marsh for at least 5 years after the flood banks have been breached and until the marsh is sufficiently firm to graze without causing excessive poaching (less than 10% of vegetated areas).
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not graze marsh for at least 5 years after the flood banks have been breached.
- Do not modify any developing creeks, pans or hollows.

- Do not apply gypsum or any substance that lowers salinity.
- Do not cut rushes.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land/or developing habitat, except simple bridges to allow creek crossing (with no shoring-up of creek sides).

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create the saltmarsh.

Z308 - Woodland: facilitate natural colonisation on improved land

Description

This action is to create woodland by allowing neighbouring trees to naturally seed into improved and semi-improved grassland. Natural colonisation ensures that the new woodland is populated by trees adapted to the local environment.

Where to apply

This action is only available on improved grassland immediately adjacent to existing woodland and/or mature hedgerows with canopy trees, and where no known archaeological feature is situated.

Field parcels must be 0.1 hectares or larger.

The area needs to be within 75 metres of viable seed sources for at least two species.

Aims

- To extend the area of native broad-leaved woodland outside its current extent.
- To create greater than 20% canopy cover across the area and 100 tree stems (seedlings and saplings) per hectare by year ten.
- To improve woodland connectivity within the wider landscape.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Exclude all livestock from the area within the first 6 months.
- Remove non-native conifers and non-native broadleaves, including beech outside of its natural range in South-East Wales.
- Keep an Activity Diary for each year and make it available as required.

Management Restrictions

- Do not cut, top or undertake any other management which prevents vegetation growth.
- Do not fell any native broadleaved trees, apart from beech outside its natural range.

- Do not clear out existing ditches without prior approval from your Field Support Officer.
- Do not apply any insecticides, fungicides or molluscicides.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not plant trees without prior approval from your Field Support Officer.
- Do not undertake any earth moving activities.
- Do not use for off-road vehicle activities.
- Do not construct tracks, roads, yards, hardstandings or any new structures.
- Do not store materials or machinery.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage the area to encourage natural colonisation by trees and shrubs.

Undertake any capital works agreed with your farm advisor to control invasive non-native species.

Z309 - Woodland: facilitate natural colonisation on habitat land

Description

This action is to create woodland by allowing neighbouring trees to naturally seed into areas of habitat land. Natural colonisation ensures that the new woodland is populated by trees adapted to the local environment.

Where to apply

This action is only available on habitat land, immediately adjacent to existing woodland and/or mature hedgerows with canopy trees, and where no known archaeological feature is situated.

Field parcels must be 0.1 hectares or larger.

Below the limit of enclosure, the area needs to be within 75 metres of viable seed sources for at least two species.

Above the limit of enclosure, the area needs to be within 100 metres of viable seed sources for at least two species.

Aims

- To extend the area of native broad-leaved woodland beyond current levels.
- To create greater than 20% canopy cover across the area and 100 tree stems (seedlings and saplings) per hectare by year ten.
- Improve woodland connectivity within the wider landscape.

Management Requirements

- Follow the Universal Code
- Exclude all livestock from the area within the first 6 months.
- Remove any non-native conifers and non-native broadleaves, including beech outside of its natural range in South-East Wales.
- Keep an Activity Diary for each year and make it available as required.

Management Restrictions

- Do not cut, top or undertake any other management which prevents vegetation growth.
- Do not fell any native broadleaved trees, apart from beech outside its natural range.
- Do not clear out existing ditches without prior approval from your Field Support Officer.
- Do not apply any insecticides, fungicides or molluscicides.
- Do not apply lime or any other substance to alter the soil acidity.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not plant trees without prior approval from your Field Support Officer.
- Do not undertake any earth moving activities.
- Do not use for off-road vehicle activities.
- Do not construct tracks, roads, yards, hardstandings or any new structures.
- Do not store materials or machinery.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to manage the area to encourage natural colonisation by trees and shrubs.

Undertake any capital works agreed with your farm advisor to control invasive non-native species.

Z310 - Wood pasture: creation on improved land

Description

This action supports actions to create new wood-pasture on improved land. Management will establish scattered trees within grazed grassland and restore the ground-layer to a semi-natural grassland. Wood pasture provides a wide range of ecosystem services, including important habitats for wildlife, shelter and shade for livestock and a role in carbon storage.

Where to apply

On improved land where there are few or no trees, where an increase in scattered trees will be beneficial to biodiversity.

Aims

- To create a developing wood-pasture habitat by establishing and protecting native tree species.
- To promote and protect self-seeded trees, wherever possible, and to plant where necessary.
- To restore improved grassland to a more semi-natural grassland with a greater diversity of plant species.

Management Requirements

- Follow the Universal code, including Part 2 - Biodiversity and Habitats.
- Agree and implement a plan to establish new trees with your Field Support Officer. This will involve establishing 6-120 trees per hectare, of three or more appropriate native species. This can be by natural colonisation, where a suitable donor site is located nearby, or by planting.
- Protect newly planted trees and replace any planted trees that fail to establish.
- Retain areas of bramble and scrub, but do not allow them to spread to more than 10% of the area.
- Leave any standing and fallen deadwood in place.
- Remove any invasive non-native conifers.

- Adhere to the grazing plan agreed with your field support officer to manage the ground-layer.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the area.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not plant or seed any other tree species except those agreed with your Field Support Officer.
- Do not cultivate the soil around the trees.
- Do not fell any existing native broadleaf trees.
- Do not burn vegetation or other materials.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your field support officer.

Capital Works

Undertake any capital works agreed with your field support officer necessary to create and manage the wood pasture.

Undertake any capital works agreed with your field support officer to control invasive non-native species.

Z311 Wood pasture: creation on habitat land

Description

This action supports actions to create new wood-pasture on habitat land. Management will establish scattered trees within a grazed system. Wood pasture provides a wide range of ecosystem services, including important habitats for wildlife, shelter and shade for livestock and a role in carbon storage.

Where to apply

On habitat land where there are few or no trees, where an increase in scattered trees will be beneficial to biodiversity.

Aims

- To create a developing wood-pasture habitat by establishing and protecting native tree species.
- To promote and protect self-seeded trees, wherever possible, and to plant trees where necessary.

Management Requirements

- Follow the Universal code.
- Agree and implement a plan to establish new trees with your Field Support Officer. This will involve establishing 6 -120 trees per hectare, of three or more appropriate native species. This can be by natural colonisation, where a suitable donor site is located nearby, or by planting.
- Protect newly planted trees and replace any planted trees that fail to establish.
- Retain areas of bramble and scrub, but do not allow them to spread to more than 10% of the area.
- Leave any standing and fallen deadwood in place.
- Remove any invasive non-native conifers.
- Adhere to the grazing plan agreed with your Field Support Officer to manage the ground-layer.

- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the area.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not plant or seed any other tree species except those agreed with your Field Support Officer.
- Do not cultivate the soil around the trees.
- Do not fell any existing native broadleaf trees.
- Do not burn vegetation or other materials.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your field support officer.

Capital Works

Undertake any capital works agreed with your field support officer necessary to create and manage the wood pasture.

Undertake any capital works agreed with your field support officer to control invasive non-native species.

Z312 - Parkland: creation

Description

This action creates new parkland habitat and landscapes. New parkland will provide future habitat for wildlife, in particular, parkland is important for rare invertebrates, lichens and bats. Planting parkland can also provide shade and shelter for your livestock.

Where to apply

Create new parkland on improved land or on semi-improved grassland.

Prioritise areas adjacent to existing parkland or where there is already a mosaic of open grown trees dotted through field parcels ideally surrounded by hedgerows.

The management in this action relates solely to the trees and shrubs. Other actions can be combined to provide management of the field layer, whether grassland or arable.

Aims

- To produce a landscape characterised by large, often mature trees in an open, grazed landscape, valuable for biodiversity and historical significance.
- To encourage the development of a diverse habitat and landscape feature comprising specimen native broadleaved trees, together with replacement saplings and lightly grazed pasture.
- To retain any existing characteristic features of less intensively managed parkland such as ancient trees and dead wood. This will benefit hole nesting birds, as well as lichens, fungi, insects and other invertebrates.
- To ensure that any new planting is in keeping with existing landscape character and the historic value of the site.
- To ensure a continuity of similar levels of dead wood and veteran open grown trees

Management Requirements

- Follow the Universal code, including Part 3: Trees
- Agree and implement a plan with your Field Support Officer to create a landscape of widely spaced native trees.

- Ensure that any planting is in keeping with existing landscape character and the historic value of the site including appropriate species selection and planting locations.
- Plant and maintain a minimum of 5% of the area as native shrubs to provide nectar sources.
- Protect all trees from grazing.
- Retain all standing dead wood unless it creates a demonstrable hazard.
- Retain all fallen dead timber and any cut material. The timber should be retained in- situ or moved to a semi-shaded area nearby.
- Agree the appropriate management action for the ground layer with your Field Support Officer.
- Ensure that grazing livestock have not been treated with products containing avermectins four weeks prior to or during the period they are grazing the area covered by this action.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not spread farmyard manure beneath the canopy of or near (within 5 metres) of any tree.
- Do not apply any organic fertilisers other than farmyard manure and avoid spreading in close proximity (within 5 metres) to trees.
- Do not increase application rates of organic or inorganic fertiliser above the levels applied on entry to the scheme.
- Do not apply any wastepaper sludge or other off farm wastes. Obtain prior approval from the Field Support Officer before applying any lime, basic slag or calcified seaweed.
- Do not plough, cultivate or re-seed unless the land is already managed as part of an arable rotation.

- Do not plough, reseed or spread fertiliser beneath the tree canopies as they develop.
- Do not clear out existing drains without prior approval from the Field Support Officer.
- Do not use any herbicides or pesticides on grassland sites, other than for spot treatment of notifiable weeds, without prior approval from the Field Support Officer. Cutting is an acceptable method of weed control.
- Do not supplementary feed beneath the canopy of or near (within 5 metres) of any tree.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.
- Do not burn any vegetation or other materials.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create the parkland. These will include planting standard trees and tree guards to protect the young trees from grazing.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z313 - Traditional orchards: creation on improved land

Description

This action provides the management required to create a new traditional orchard. Traditional orchards have large, widely spaced fruit trees, managed with minimal chemical inputs. They support a wide range of wildlife, including pollinators and birds. These orchards also enhance the character of your land, support soil health and carbon storage and can offer small-scale income.

Where to apply

This action can be applied to improved land only.

Orchards are best located on well-drained, fertile soil, in a sheltered location, away from frost pockets and with full sun for the majority of the day.

Aims

- To support the development of a diverse habitat and landscape feature, comprising standard or half standard fruit and/or nut trees, species-rich grassland and traditional field boundaries.
- To provide a habitat that supports key components of biodiversity associated with traditional orchards, including specialised invertebrate, lichen and fungal communities.
- To maintain the characteristic features of less intensively managed orchards such as dead wood. This can support mosses, lichens and fungi, as well as insects and other invertebrates.
- To maintain the grassland to retain or encourage flowering plants typical of neutral grassland.
- To safeguard traditional varieties of fruit tree, especially those local to the area.
- To produce local food.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats
- Agree and implement a planting plan to establish orchard trees with your Field Support Officer.
- All failed plantings must be replaced in the next planting season.
- Shape new trees by formative pruning.
- Control vegetation for 1 metre diameter around the base of the new trees for at least 3 years. A thick layer of mulch is the best method of achieving this.
- Retain any existing fruit/nut trees, unless diseased or constitute a demonstrable hazard.
- Undertake regular pruning to maintain a reasonable level of health and productivity, if necessary, and to prevent trees becoming vulnerable to windthrow.
- As trees mature, retain some dead wood on the trees as it occurs.
- Manage the grassland by cutting and/or grazing.

Where grazing:

- Maintain a sward with a range of heights during the growing season to allow plants to flower and to provide a varied habitat.
- Graze for between 4 and 9 calendar months in a year. Ensuring that there is a minimum of 3 months during the year when the orchard is ungrazed.
- Allow a 6-week continuous period of no grazing between 1 April and 30 August. This will allow plants to flower and set seed.
- Ensure at least 75% of the grassland is above 5 centimetres in height between 1 May and 30 September.
- Graze at levels that do not create more than 10% bare ground beneath the canopy of the trees.
- Do not graze with goats, horses or cattle unless trees are protected by sturdy stock guards that are sufficiently tall to prevent damage to the fruit trees.

Where cutting:

- If only cutting, take 2 to 4 cuts per year or, if cutting and grazing, take one cut in addition to aftermath grazing.
 - At least 10% of the grassland must be left uncut on each cut and the uncut section moved around each cut.
 - The cut material should be removed.
 - The sward height should not be reduced below 5 centimetres.
 - Maintain patches, amounting to at least 10% of the orchard area, of tall grass, nettle and bramble (usually around the edges of the orchard). Cut these on a 2–3-year rotation, to provide habitat diversity.
-
- Retain ivy on walls and trees that are not fruit/nut trees as a pollen/nectar source, for berries and as shelter for small birds. Ivy may be removed from fruit/nut trees or where it is causing damage to a wall.
 - Any fallen dead wood or pruned timber should be stacked and retained within the orchard unless the wood is diseased.
 - Prevent damage to fruit trees from livestock and machinery.
 - Maintain/install stock-proof boundaries, where grazing the grassland, so that grazing rates can be controlled within the orchard. If new boundaries are required, hedgerows should be chosen where feasible as they significantly add to the wildlife value of the orchard.
 - Lime may be applied to raise soil pH to 6 - 6.5.
 - Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not use tar oil washes and other pesticides as these reduce the wildlife value of the orchards.
- Do not prune out mistletoe (sustainable harvesting is acceptable).
- Do not clear out existing drains without prior approval from your Field Support Officer.
- Do not install new watering troughs without prior approval from your Field Support Officer.

- Do not use the grassland for non-agricultural vehicle activities, as a track or to store materials (e.g. bales or machinery).
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.

Derogations

- Use of pesticides to control tree pests and disease where fruit tree viability is threatened.

Capital Works

Undertake any capital works agreed with your Field Support Officer necessary to create and manage the orchard. This will include:

- Planting traditional varieties of top fruit (apple, pear, cherry, plum) and/or nut. All trees must be planted within the first two years.
- The majority of planting should be on standard or half-standard rootstocks and should be planted no less than 5 metres and no more than 15 metres apart.
- Planting must be minimum 5 metres from orchard boundary.
- Protect new trees by staking and installing rabbit guards where necessary.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z314 - Traditional orchards: creation on habitat land

Description

This action provides the management required to create a new traditional orchard on habitat land. Traditional orchards have large, widely spaced fruit trees, managed with minimal chemical inputs. They support a wide range of wildlife, including pollinators and birds. These orchards also enhance the character of your land, support soil health and carbon storage and can offer small-scale income.

Where to apply

This action can be applied to habitat land only.

Orchards are best located on well-drained, fertile soil, in a sheltered location, away from frost pockets and with full sun for the majority of the day.

Aims

- To support the development of a diverse habitat and landscape feature, comprising standard or half standard fruit and/or nut trees, species-rich grassland and traditional field boundaries.
- To provide a habitat that supports key components of biodiversity associated with traditional orchards, including specialised invertebrate, lichen and fungal communities.
- To maintain the characteristic features of less intensively managed orchards, such as dead wood. This can support mosses, lichens and fungi, as well as insects and other invertebrates.
- To maintain the grassland to retain or encourage flowering plants typical of neutral grassland.
- To safeguard traditional varieties of fruit tree, especially those local to the area.
- To produce local food.

Management Requirements

- Follow the Universal Code.
- Agree and implement a planting plan to establish orchard trees with your Field Support Officer.
- All failed plantings must be replaced in the next planting season.
- Shape new trees by formative pruning.
- Control vegetation for 1 metre diameter around the base of the new trees for at least 3 years. A thick layer of mulch is the best method of achieving this.
- Retain any existing fruit/nut trees, unless diseased or constitute a demonstrable hazard.
- Undertake regular pruning to maintain a reasonable level of health and productivity, if necessary, and to prevent trees becoming vulnerable to windthrow.
- As trees mature, retain some dead wood on the trees as it occurs.
- Manage the grassland by cutting and/or grazing.

Where grazing:

- Maintain a sward with a range of heights during the growing season to allow plants to flower and to provide a varied habitat.
- Graze for between 4 and 9 calendar months in a year. Ensuring that there is a minimum of 3 months during the year when the orchard is ungrazed.
- Allow a 6-week continuous period of no grazing between 1st April and 30th August. This will allow plants to flower and set seed.
- Ensure at least 75% of the grassland is above 5 centimetres in height between 1st May and 30th September.
- Graze at levels that do not create more than 10% bare ground beneath the canopy of the trees.
- Do not graze with goats, horses or cattle unless trees are protected by sturdy stock guards that are sufficiently tall to prevent damage to the fruit trees.

Where cutting:

- If only cutting, take 2 to 4 cuts per year or, if cutting and grazing, take one cut in addition to aftermath grazing.

- At least 10% of the grassland must be left uncut on each cut and the uncut section moved around each cut.
 - The cut material should be removed.
 - The sward height should not be reduced below 5 centimetres.
 - Maintain patches, amounting to at least 10% of the orchard area, of tall grass, nettle and bramble (usually around the edges of the orchard). Cut these on a 2–3-year rotation, to provide habitat diversity.
- Retain ivy on walls and trees that are not fruit/nut trees as a pollen/nectar source, for berries and as shelter for small birds. Ivy may be removed from fruit/nut trees or where it is causing damage to a wall.
 - Any fallen dead wood or pruned timber should be stacked and retained within the orchard unless the wood is diseased.
 - Prevent damage to fruit trees from livestock and machinery.
 - Maintain/install stock-proof boundaries, where grazing the grassland, so grazing rates can be controlled within the orchard. If new boundaries are required, hedgerows should be chosen, where feasible, as they significantly add to the wildlife value of the orchard.
 - Lime may be applied to raise soil pH to 6 - 6.5.
 - Keep an Activity Diary each year and make it available as required.

Management Restrictions

- Do not use tar oil washes and other pesticides as these reduce the wildlife value of the orchards.
- Do not prune out mistletoe (sustainable harvesting is acceptable).
- Do not clear out existing drains without prior approval from your Field Support Officer.
- Do not install new watering troughs without prior approval from your Field Support Officer.
- Do not use the grassland for non-agricultural vehicle activities, as a track or to store materials (e.g. bales or machinery).

- Do not supplementary feed, apart from in in extreme weather and in locations agreed with your Field Support Officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer necessary to create and manage the orchard. This will include:

- Planting traditional varieties of top fruit (apple, pear, cherry, plum) and/or nut. All trees must be planted within the first two years.
- The majority of planting should be on standard or half-standard rootstocks and should be planted no less than 5 metres and no more than 15 metres apart.
- Planting must be minimum 5 metres from orchard boundary.

Protecting new trees by staking and installing rabbit guards, where necessary.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z315 - Wet grassland: creation for wintering waders and waterfowl on improved land

Description

To provide habitat for wintering waders and waterfowl. Waders such as lapwing, snipe, and curlew benefit from the large number of invertebrates present in soft damp soils, while waterfowl graze on grass and seeds washed out in the water. Areas of standing water also provide a safer place to roost, away from a variety of predators.

Where to apply

This action should be applied:

- On improved land that has a naturally high water table or has the potential to have a raised water table.
- On land that is adjacent or close to locations of current wintering populations of waders or identified by your Field Support Officer as having a high potential to support new breeding populations of waders.
- Within an open landscape with few trees or tall hedgerows.
- In blocks of greater than 10 hectares or where combined with existing wet grassland provides greater than 10 hectares in area.
- It is best to avoid sites with an unreliable water supply and/or sites with botanical interest that could be damaged by hydrological changes.

This action will frequently be used alongside Supplementary action: raised water levels on improved land.

Aims

- To provide a diverse range of suitable wet grassland feeding and roosting habitats for wintering waders and waterfowl areas during the autumn and winter months by creating and maintaining:
 - wet areas, including standing water and bare and muddy areas.
 - a varied sward height and structure for wintering waders and waterfowl.
 - appropriate rush cover for the wintering waders and waterfowl (no more than 30% cover)

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.

- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - To provide a varied sward of 5 to 15 centimetres in height by autumn (1 November) by grazing, cutting, or a combination of both.
 - There are areas of standing water and wet features during autumn and winter. Ideally with a range of water depths from 1 to 30 centimetres (this can be up to 50 centimetres on larger sites) covering 5% to 30% of the area.
 - Dense areas of rushes cover no more than 30% of the grassland area. These can be actively managed by topping or cutting **and** baling.
- Swards can be managed before winter by cutting or topping between 1 August and 31 October, especially where grazing has not removed the season's grass growth, or this is needed to help manage rushes.
- Remove cuttings by gathering or baling to prevent build-up of litter and nutrients.
- Maintain or restore the appropriate hydrology and provide wet conditions for wintering waders and waterfowl to feed and roost.
- Maintain wet features, including gutters and scrapes, to provide muddy areas for waders and waterfowl to feed.
- Keep vegetation around scrapes and gutters short to allow access for feeding with some taller tussocks for cover.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching of the grasslands around gateways, feeding and watering areas is acceptable provided that poached and bare ground make up less than 5% cover across the grassland area.
- Prevent encroachment of trees, scrub and bracken onto the grassland.

- With agreement from your Field Support Officer, maintain adjacent hedges at less than 2 metres in height.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Avoid recreational activities between 1 November and 28 February.
- Avoid use of machinery on areas of wet grassland between 1 November and the 28 February.
- Do not release waders or waterfowl within your site.
- Do not apply any pesticides.
- Do not provide feed to attract waders or waterfowl to your site.
- Do not plant trees or shrubs on the grassland.
- Do not construct tracks, roads, yards, hardstanding or any new structures on areas managed as wet grassland for wintering waders.
- Do not clear out existing ditches, drains or wet features without prior approval from the field support officer.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed grazing stock, apart from in extreme weather and in locations agreed with your field support officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create suitable wet features and to manage the grassland for the benefit of waders and waterfowl. These could include options such as:

- Creating new scrapes
- Installing sluices

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z316 - Wet grassland: creation for wintering waders and waterfowl on improved land

Description

To provide habitat for wintering waders and waterfowl. Waders such as lapwing, snipe, and curlew benefit from the large number of invertebrates present in soft damp soils, while waterfowl graze on grass and seeds washed out in the water. Areas of standing water also provide a safer place to roost, away from a variety of predators.

Where to apply

This action should be applied:

- On improved land that has a naturally high water table or has the potential to have a raised water table.
- On land that is adjacent or close to locations of current wintering populations of waders or identified by your Field Support Officer as having a high potential to support new breeding populations of waders.
- Within an open landscape with few trees or tall hedgerows.
- In blocks of greater than 10 hectares or where combined with existing wet grassland provides greater than 10 hectares in area.
- It is best to avoid sites with an unreliable water supply and/or sites with botanical interest that could be damaged by hydrological changes.

This action will frequently be used alongside Supplementary action: raised water levels on improved land.

Aims

- To provide a diverse range of suitable wet grassland feeding and roosting habitats for wintering waders and waterfowl areas during the autumn and winter months by creating and maintaining:
 - wet areas, including standing water and bare and muddy areas.
 - a varied sward height and structure for wintering waders and waterfowl.
 - appropriate rush cover for the wintering waders and waterfowl (no more than 30% cover)

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - To provide a varied sward of 5 to 15 centimetres in height by autumn (1 November) by grazing, cutting, or a combination of both.
 - There are areas of standing water and wet features during autumn and winter. Ideally with a range of water depths from 1 to 30 centimetres (this can be up to 50 centimetres on larger sites) covering 5% to 30% of the area.
 - Dense areas of rushes cover no more than 30% of the grassland area. These can be actively managed by topping or cutting **and** baling.
- Swards can be managed before winter by cutting or topping between 1 August and 31 October, especially where grazing has not removed the season's grass growth, or this is needed to help manage rushes.
- Remove cuttings by gathering or baling to prevent build-up of litter and nutrients.
- Maintain or restore the appropriate hydrology and provide wet conditions for wintering waders and waterfowl to feed and roost.
- Maintain wet features, including gutters and scrapes, to provide muddy areas for waders and waterfowl to feed.
- Keep vegetation around scrapes and gutters short to allow access for feeding with some taller tussocks for cover.
- To prevent poaching and compaction, remove livestock if conditions become too wet and widespread poaching starts to occur. Localised poaching of the grasslands around gateways, feeding and watering areas is acceptable

provided that poached and bare ground make up less than 5% cover across the grassland area.

- Prevent encroachment of trees, scrub and bracken onto the grassland.
- With agreement from your Field Support Officer, maintain adjacent hedges at less than 2 metres in height.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Avoid recreational activities between 1 November and 28 February.
- Avoid use of machinery on areas of wet grassland between 1 November and the 28 February.
- Do not release waders or waterfowl within your site.
- Do not apply any pesticides.
- Do not provide feed to attract waders or waterfowl to your site.
- Do not plant trees or shrubs on the grassland.
- Do not construct tracks, roads, yards, hardstanding or any new structures on areas managed as wet grassland for wintering waders.
- Do not clear out existing ditches, drains or wet features without prior approval from the field support officer.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed grazing stock, apart from in extreme weather and in locations agreed with your field support officer.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create suitable wet features and to manage the grassland for the benefit of waders and waterfowl. These could include options such as:

- Creating new scrapes
- Installing sluices

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z317 - Reedbed: creation on habitat land

Description

This action provides the management to create new areas of reedbed. Reedbeds are a valuable habitat, supporting a range of specialist species, such as reed warbler and bittern. Reedbeds can also improve water quality by filtering out silt and removing excess nutrients and also contribute to the accumulation of soil carbon.

Where to apply

On poor quality habitat land that is low-lying and which can be made wet enough to enable reed growth.

Areas adjacent to existing reedbeds should be considered, wherever possible, as this will enable habitat expansion and it will also be easier to establish reed.

Reedbed creation can be considered on peat soils lacking any existing semi-natural habitat, but only (i) with the prior approval of your Field Support Officer, and (ii) if the surface of the peatland can be made wet enough for reed establishment without the need to excavate peat to create flooded depressions.

This action will often be combined with Supplementary Action: raise water levels on habitat land and/or capital works to create scrapes.

Aims

- To create new wetland habitat dominated by vigorously growing reed to benefit water quality and populations of a range of specialist wetland bird, plant and invertebrate species closely associated with reedbeds.
- To manage water levels and flows to promote year-round standing water. This may involve the maintenance of culverts, sluices or bunds.
- To prevent the encroachment of scrub. Maintaining high water levels to promote the vigorous growth of reed will help to achieve this but may need to be combined with active removal or herbicide treatment of scrub.
- To promote good reed growth once established through appropriate management.
- To create and/or maintain open water.

Management Requirements

- Follow the Universal Code.
- Exclude all livestock
- Any cutting or removal of reed should be undertaken during late autumn and winter to promote dense reed growth. Cutting should be undertaken on a four-year cycle, with a maximum of half of the reedbed cut in any one year. Most material should be removed from site, but small piles of cut material can be left around the drier margins to provide winter habitat for reptiles and invertebrates.
- Prevent encroachment of trees, scrub and bracken onto the habitat.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not clear out existing ditches without prior approval from your advisor.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not plant trees.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.
- Do not over deepen ditches and drains around the outside of the reedbed that will either lower water levels in the reedbed or encourage nutrient rich water to enter the reedbed ecosystem.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create the reedbed. This is likely to include works such as:

- Raising water levels
- Planting reed seeds or rhizomes

Undertake any capital works agreed with your Farm Support Officer to control Invasive non-native species.

Z318 - Reedbed: creation on improved land

Description

This action provides the management to create new areas of reedbed. Reedbeds are a valuable habitat, supporting a range of specialist species, such as reed warbler and bittern. Reedbeds can also improve water quality by filtering out silt and removing excess nutrients and also contribute to the accumulation of soil carbon.

Where to apply

Areas of low-lying improved land which can be made wet enough to enable reed growth, but which do not already support habitat.

Areas adjacent to existing reedbeds should be considered, wherever possible, as this will enable habitat expansion and it will also be easier to establish reed.

Reedbed creation can be considered on peat soils lacking any existing semi-natural habitat but only (i) with the prior approval of your Field Support Officer, and (ii) if the surface of the peatland can be made wet enough for reed establishment without the need to excavate peat to create flooded depressions.

This action will often be combined with Supplementary Action: raise water levels on improved land and/or capital works to create scrapes.

Aims

- To create new wetland habitat dominated by vigorously growing reed to benefit water quality and populations of a range of specialist wetland bird, plant and invertebrate species closely associated with reedbeds.
- To manage water levels and flows to promote year-round standing water. This may involve the maintenance of culverts, sluices or bunds.
- To prevent the encroachment of scrub. Maintaining high water levels to promote the vigorous growth of reed will help to achieve this but may need to be combined with active removal or herbicide treatment of scrub.
- To promote good reed growth once established through appropriate management.
- To create and/or maintain open water.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Exclude all livestock.
- Any cutting or removal of reed should be undertaken during late autumn and winter to promote dense reed growth. Cutting should be undertaken on a four-year cycle, with a maximum of half of the reedbed cut in any one year. Most material should be removed from site, but small piles of cut material can be left around the drier margins to provide winter habitat for reptiles and invertebrates.
- Prevent encroachment of trees, scrub and bracken onto the habitat.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not clear out existing ditches without prior approval from your advisor.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow at any time of year.
- Do not plant trees.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.
- Do not over deepen ditches and drains around the outside of the reedbed that will either lower water levels in the reedbed or encourage nutrient rich water to enter the reedbed ecosystem.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create the reedbed. This is likely to include works such as:

- Raising water levels
- Planting reed seeds or rhizomes

Undertake any capital works agreed with your Farm Support Officer to control Invasive non-native species.

Z319 - Artificial wetlands: creation on improved land

Description

This action covers the creation of new artificial wetlands to help reduce nutrient enrichment to downstream water courses and wetlands.

Where to apply

This action should be used wherever streams or seepage zones feeding into water courses or wetlands are believed to be affected by nutrient enrichment. The most obvious symptoms of this will include dense growth of algae and/or the presence of species which indicate nutrient-enrichment – these include species of flote-grass, species of duckweed and species of water starwort.

This action should be constructed on improved land adjacent to habitat land and wetlands and should not generally be constructed on peat soils, although there may be exceptional circumstances.

This action is only suitable for water courses or seepages that supply a limited quantity of water, typically up to 5 litres per second.

Artificial wetlands must not be constructed in water courses with any presence of invasive non-native species that are within 200 metres of the proposed location of the artificial wetland.

Aims

- To create an artificial wetland supporting semi-natural wetland vegetation which is effective at reducing a proportion of the inorganic plant nutrients entering water courses or wetlands from feeder streams or seepage areas.
- To help slow the flow of water entering wetlands.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Use capital works to create a low-lying bunded area capable of retaining standing water all year round with in-flowing water diverted in from streams or seepage zones and with an outflow into receiving water courses or a wetland.

- Allow natural colonisation by native wetland species. If the cover of wetland species is less than 10% by year 3 then the wetland will need to be augmented with seed collected from local wetlands or by using clumps of native wetland vegetation harvested from locations agreed with your Field Support Officer.
- Prevent grazing livestock from accessing the created wetland.
- Maintain a close check on the structural integrity of bunds and inflow and outflow structures, recording observations in the Activity Diary.
- Keep an Activity Diary and make it available as required.
- Prevent encroachment of trees, scrub and bracken onto the constructed wetland.

Management Restrictions

- Do not construct wetlands during the breeding bird season (1 March to 31st August).
- Do not introduce any species to the wetland without advice from your Field Support Officer.
- Do not supplementary feed on or within 10 metres of the artificial wetland.

Capital Works

Agree a location and construction method with your Field Support Officer.

Undertake any capital works agreed with your Field Support Officer that are necessary to create and manage the wetland. These will include items such as bunds, sediment traps and sluices.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z320 - Lowland and coastal heath: creation on improved land

Description

Lowland and coastal heathlands provide a wide range of ecosystem services, including habitat for pollinators and birds and a store of soil carbon.

Heathland habitats can be created on improved grasslands and arable sites where the soils are suitable. By cutting and moving seed-containing material of heather (and other similar dwarf shrubs and heathland plants) these species can establish, and a heathland habitat can develop.

Where to apply

This action should be applied on agriculturally improved grassland or arable land in the lowlands. The action should be applied to land adjacent to or near existing established heathland to augment the habitat network.

The soil pH of the site should be pH4.5 or lower and Phosphorous (P) and Potassium (K) are below index 2 (i.e. 0 or 1), where the fertility is assessed as 'low' and may be suitable for heathland creation.

Do not use this action where it would disturb an archaeological / historic environment site.

Aims

- To create heathland habitat with more than 25% dwarf shrub cover (particularly heather, bell heather, western gorse) and associated heathland flora, fungi and fauna.
- Once created, to maintain the heathland with a sustainable grazing management regime.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- With your Field Support Officer, agree a plan to create heathland, including sourcing heathland seed.
- Prepare the receptor site by removing the surface vegetation and the top 3-5 centimetres of turf to remove competing species and dispose of appropriately.

- Cut and collect heathland mowing arisings (seed material) from a well-established good quality heathland donor site in late autumn/winter.
- Spread arisings as soon as practicable after cutting. Spread evenly using a suitable spreader, or by hand, at a ratio of 1 hectare donor site to 2 or 3 hectares receptor site; approximately 1000 - 1500 kilograms per hectare.
- After 3 years, introduce grazing and adhere to the grazing plan agreed with your Field Support Officer.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer
- Do not permit scrub, brambles, bracken or trees to spread.
- Do not burn any vegetation.
- Do not roll or chain-harrow.
- Do not apply any fertilizer or lime.
- Do not graze the heathland-seeded area for 3 years after establishment and then only lightly, at the agreed grazing level.
- Do not burn any areas of heath during the 5-year creation period.
- Do not use the habitat for non-agricultural vehicle activities or as a track.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to successfully create the heathland.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z321 - Upland heath: creation on improved land

Description

Upland heathlands provide a wide range of ecosystem services, including habitat for pollinators and birds, and a store of soil carbon.

Heathland habitats can be created on improved grasslands in the uplands where soils are suitable, by cutting and moving seed-containing material of heather (and other similar dwarf shrubs and heathland plants).

Where to apply

This action can be applied on improved grassland in the uplands. The action will best augment habitat networks where it is applied to land adjacent to or near existing established upland heathland, but this is not a requirement.

The soil pH of the site should be pH4.5 or lower and Phosphorous (P) and Potassium (K) are below index 2 (i.e. 0 or 1), where the fertility is assessed as “low” and may be suitable for heathland creation.

Do not use this action where it would disturb an archaeological / historic environment site.

Aims

- To create upland heath habitat with more than 25% dwarf shrub cover (heather, bilberry, bell heather, etc.).
- To maintain the heathland, once vegetation is established, and create mosaics and varied heath vegetation structure.

Management

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- With your Field Support Officer, agree a plan to create heathland, including sourcing heathland seed.
- Prepare the receptor site by a form of heavy disturbance to break up grassland turf and create bare areas of soil. It may be beneficial to entirely remove the surface vegetation (top 3-5 centimetres) but only do this in locations that are considered low risk of soil erosion and avoid areas within 20 metres of watercourses. Dispose of arisings appropriately.

- Cut and collect heathland mowing arisings (seed material) from a well-established good quality heathland donor site in late autumn/winter.
- Spread arisings as soon as practicable after cutting. Spread evenly using a manure spreader, or by hand, at a ratio of 1 hectare donor site to 2 or 3 hectares receptor site; approximately 1000 - 1500 kilograms per hectare.
- After 3 years, introduce grazing and adhere to the grazing plan agreed with your Field Support Officer.
- To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the habitat area.
- Keep an Activity Diary and make it available as required.

Restrictions

- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.
- Do not permit scrub, brambles, bracken or trees to spread.
- Do not burn any vegetation.
- Do not roll or chain-harrow.
- Do not apply any fertilizer or lime.
- Do not graze the heathland-seeded area for 3 years after establishment and then only lightly, at the agreed grazing level.
- Do not burn any areas of heath during the 5-year creation period.
- Do not use the habitat for non-agricultural vehicle activities or as a track.
- Do not construct tracks, roads, yards, hardstanding or any new structures on habitat land.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create and manage the heathland.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z322 - Coastal sand dune: creation on improved land

Description

This action will create conditions suitable for new sand dune habitat to establish. This can be done by removing the nutrient rich upper layer of vegetation through grazing and by exposing the mineral sand beneath. This will allow natural processes to shape and form the sand and provides suitable conditions for sand dune plants to colonise.

Where to apply

This action should be applied where there is blown sand underlying existing improved vegetation (i.e. on land that was historically part of a sand dune system, or on land next to an active sand dune system) which has the potential to become sand dune habitat.

Areas with connectivity to an adjacent functioning sand dune system should be targeted and prioritised for sand dune creation.

Aims

- To create conditions suitable for the formation of sand dune habitat.
- To remove the nutrient rich upper layer of vegetation through grazing and by exposing the mineral sand beneath.
- To allow natural processes to shape and form the sand and to provide suitable conditions for sand dune plants to colonise.
- To retain any relict dune landforms such as dune ridges and hollows (dune slacks).
- The short-term aim will be to create conditions suitable for sand dune plants to colonise and thrive and the long term aim is to create conditions suitable for a self-sustaining species-rich sand dune which may connect with an existing sand dune system.
- In dune slacks (wet hollows), to have less than 70% grass cover.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- With your Field Support Officer agree a plan to create bare sand.
- Create areas of bare sand by hand for small scale patches or, by mechanical means for large scale areas (this will be paid by capital works).

- Where patches of bare sand already occur maintain these areas by allowing colonisation of native sand dune flora.
- Outside of the bare sand creation areas, remove nutrient rich upper layers of vegetation through grazing management.
- Use the grazing plan agreed with your Field Support Officer (FSO) as a guide to achieve the outcomes below. Where necessary, grazing should be adjusted from the rates in the plan, for example where forage growth is adversely affected by weather conditions, to ensure that the following outcomes are achieved:
 - A varied sward height so that at least 20% of the sward is less than 5 centimetres in height and at least 40% is less than 10 centimetres in height.
- Mowing can be used when grazing is not an option for practical reasons or used to encourage stock into a previously un-grazed area. All cut material should be removed off-site.
- Remove any litter by hand.
- Keep an Activity Diary each year and make it available as required.
- It is permissible to top injurious weed species.

Management Restrictions

- Do not plant trees or shrubs within sand dune habitat.
- Do not permit scrub to spread.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your Field Support Officer.
- Do not cut or top rushes.
- Do not control or attempt to control rabbits within sand dunes and shingle beaches.
- Do not remove sand or any other aggregate material from sand dunes or shingle, unless as part of the works agreed with your Field Support Officer.

- Do not construct tracks, roads, yards, hard standings or any new structures on habitat land.
- Do not use the dunes for non-agricultural vehicle activities or as a track or access the foreshore.
- Do not create sea defences or coast protection works.
- Do not introduce any species (plant or animal) without prior approval from the relevant authority.

Capital Works

Undertake any capital works agreed with your Field Support Officer that are necessary to create and manage the establishing sand dunes.

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z401 - Arable: nesting plots for Lapwing

Description

The action will provide suitable nesting habitat for lapwing within autumn-sown arable crops. Lapwing prefer to nest on bare ground, such as areas associated with spring-sown crops. However, the move to more autumn-sown cereals, which grow too tall and dense by the time lapwing begin nesting in mid-March, has reduced the availability of nesting habitat for this species.

Where to apply

This action should be applied:

- On arable land within close vicinity to breeding lapwing.
- On level or slightly sloping ground.
- Ideally, adjacent to extensively managed grassland for lapwing chick rearing where possible.
- On arable fields of at least 5 hectares, or around 10 hectares if woodland forms at least a quarter of the field boundary.
- Away from waterlogged areas or land with weeds, such as black-grass, wild oats or sterile brome.
- At least 100 metres away from woods, in-field and hedgerow trees, buildings, overhead powerlines, main roads and Public Rights of Way.
- At least 200 metres away from wind turbines.

This action may be rotational or a fixed location, providing the nesting plots are located in positions agreed with your Field Support Officer.

This action can be followed by overwinter stubble to provide a continuity of habitat for other lowland farmland bird species such as skylark and buntings.

Aims

- To provide nesting areas for lapwing on autumn-sown arable land by providing areas of bare ground or low vegetation cover as nesting areas.
- To establish an unplanted fallow plot (a minimum of 1 hectare and a maximum of 5 hectares in size) within the crop by mid-February. The fallow plot will have enough bare ground (at least 30%) for breeding lapwing.
- To provide for the ecological needs of other declining farmland birds, brown hare and vascular plants of conservation concern.

Management Requirements

- Create individual unplanted, cultivated plots in fields with a minimum area of 1 hectare, with a minimum width of 100 metres.
- Create the cultivated, unplanted fallow plots by 20 February.
- Plots can be established by cultivation or spraying of herbicide to create the fallow.
- On heavier soils, it is recommended that lapwing nesting plots are ploughed the previous autumn and allowed to weather down to provide suitable nesting conditions in early spring.
- Where natural regeneration of plants from the seed bank covers more than 70% of the plot by 30 April, restore suitable bare-ground nesting habitat making sure that no breeding lapwing are present on the plots.
- Retain cultivated areas until 31 July where possible and to 15 July in all cases.
- Keep an Activity Diary and make it available upon request.

Management Restrictions

- Do not use the nesting plots for vehicle activities or as a track unless you have checked for signs of nesting prior to any vehicle travel.
- Where possible avoid recreational activities, in fields where this action is established, especially once there are signs of nesting.
- Do not use for non-agricultural vehicle activities.

Z402 - Arable: nesting plots for skylark

Description

This action provides nesting sites on arable land for skylark, particularly in winter cereal crops. Skylarks nest on the ground, in vegetation which is 20–50 centimetres high, and open enough to give the birds easy access to the ground. To sustain the population, skylark need to make two to three breeding attempts during the breeding season. Without fallow plots, winter cereal crops, such as winter wheat, tend to grow too tall and dense to allow more than a single brood to be reared.

Where to apply

This action should be applied:

- On arable land
- Fields must be more than 1 hectare in size and have an open aspect.
- Fields bounded by trees or adjacent woods are not suitable, unless they are larger than 5 hectares.
- In fields where skylark are present or have nested in the past.

Locating this action in fields close to complementary wildlife habitats that are insect and seed rich (for example flower-rich margins, overwintered stubble and winter bird food) can help increase its effectiveness.

This action can be used either rotationally or in a fixed location.

This action can be combined with other arable actions on the same field parcel.

Aims

- To provide nesting areas on arable land for skylark throughout the breeding season by creating fallow plots within winter cereal crops.
- To provide short vegetation over the nesting season for the birds, with little impact on overall crop productivity.

Management Requirements

- Create plots by turning off the drill during winter sowing to leave an unsown plot for breeding skylark the following spring. Alternatively, if machinery cannot be switched off or lifted, the field can be drilled as normal and herbicide sprayed onto the plot area before the end of December.

- Create individual unplanted fallow plots in fields that are at least 3 metres wide and a minimum area of 16 metres squared (m²) and a maximum area of 24 metres squared (m²)
- Create a minimum of 2 plots and a maximum of 4 plots per hectare.
- Create the plots by 31 December.
- After drilling, there is no need to keep the plots completely weed-free. But where plant cover exceeds 70% of the area, spot treating with herbicide in April will provide skylark nest access.
- Weeds, such as blackgrass or wild oats arising within the plot, can be controlled using a knapsack sprayer. This should be avoided if the plot contains an active nest.
- Retain the fallow plots until the crop is harvested in the summer.
- Keep an Activity Diary and make it available upon request.

Management Restrictions

- Do not locate plots in tramlines and within 80 metres of hedgerows, as this may increase predation of eggs and chicks.
- Do not mechanically weed crops containing breeding skylark between April and harvesting as this may destroy other nests that may be present.
- Do not use for non-agricultural vehicle activities.

Z403 - Arable: Mechanical control of cover crops and weeds

Description

Use roller crimping to destroy cover crops and green manure before establishing the next arable crop to replace herbicide use. Roller crimping is a way to mechanically destroy cover crops at a specific maturity level. It creates a dense mulch layer that smothers weeds. This keeps soil protected, supports greater nutrient and water holding capacity, reduces erosion and can be beneficial for soil fungi and biodiversity.

Where to apply

This action can be applied to areas within arable fields with cover crops.

It can only be applied where the cover crop is not grazed.

Aims

- To use a roller crimping mechanical method to destroy cover crops, as an alternative to the use of chemical herbicides, prior to establishing an arable crop.
- To support an integrated pest management approach.
- To reduce evaporation and soil moisture loss.
- To reduce soil disturbance and boost soil organic matter.
- To protect against soil erosion.

Management Requirements

- Follow the Universal Code Part 1 - Soil protection
- Timing is crucial for successful destruction of cover crops with a roller-crimper, and you will need to consider the following:
 - Rye cover crops should be roller-crimped at or after they start flowering and before seeds fully ripen. Rolling too early often allows the rye to grow back or continue growing. Rolling too late can lead to viable seed production, which may become a weed.
 - Legumes, such as hairy vetch, should be roller-crimped after they start to produce pods.
 - When terminating mixtures, roller-crimp at the correct time for the latest-maturing species in the mixture, unless multiple passes are possible.

Note, depending on field conditions, the need to roller-crimp at the correct stage for best control may delay main crop planting.

- Carry out more than one pass through the field if the first pass fails to destroy the cover crop.
- Carry out roller crimping during appropriate soil and weather conditions for optimum crushing of stems and to protect soils.

Management Restrictions

- Do not destroy the cover crop before 15 February.
- Do not use herbicides, except to spot treat injurious weeds and invasive non-native species. Any herbicide you use to spot treat should be recorded in your Integrated Pest Management (IPM) Plan.

Z404 - Intensive grassland: allow ryegrass to set seed

Description

Allowing ryegrass to set seed can provide food for declining farmland seed-eating birds. Ryegrass remains on the grass stem late into the year and will provide food in the winter and early spring. This period is known as the 'hungry gap' when many seed-eating birds struggle to find food.

This action can also promote sward regeneration without the need to plough and reseed and increase soil carbon.

Where to apply

In areas or close to areas that support winter populations of farmland seed-eating birds. This action should only be used on fields with greater than 75% cover of ryegrass (Italian, hybrid or perennial ryegrass).

This action can be applied to whole fields or plots/strips within a field.

Plots should be a minimum area 0.25 hectares. Field edge strips should be a minimum of 12 metres wide.

Plots may be kept in the same place each year or rotated. Locate this action away from busy roads or footpaths which will disturb birds.

Aims

- To support populations of declining farmland birds.
- To provide ryegrass seed over the winter and early spring.
- To provide a high-density seed supply. Seed head density to be greater than 400 seed heads per square metre in the autumn.

Management Requirements

- Follow the Universal Code, including Part 2, Biodiversity and Habitats.
- Leave uncut and ungrazed from 21 May to 15 March.
- Fertiliser may be applied as required before stopping cutting and grazing. Do not apply fertilizer after the last cut or after livestock have been removed.

- Minimise vehicle access once you have stopped cutting and grazing until 15th March.
- Minimise access by people and dogs over the autumn and winter.
- Keep an Activity Diary and make it available as required.

Management Restrictions

- Do not use pesticides, except for spot treatment of injurious weeds.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow once you have stopped cutting and grazing, until 15 March.
- Do not store materials or machinery.

Z406 - Arable: no input grass margin next to an arable crop

Description

A no-input grass margin is a fixed rough grass margin of native grass species created next to arable crops to provide habitat for farmland wildlife and address sediment and fertiliser run-off and/or pesticide drift between cultivated areas and features such as habitat land or open water.

Where to apply

To address sediment and fertiliser run-off and/or pesticide drift, this action should be placed between cultivated areas and habitat land (including hedgerows) or open water (ponds, lakes, streams, rivers or ditches). It is particularly valuable when placed down slope of cultivated areas.

To provide habitat for specific farmland wildlife, margins can be created on most* arable land following advice from your Field Support Officer. This action is important for species such as grey partridge, yellow hammer and brown hare.

Combine this margin with other arable actions that provide seed resources to support grey partridge and yellow hammer. This action should not be used in isolation for these species.

Multiple margins can be placed to create wildlife corridors through arable farms.

This action should be retained in the same location for five years.

***NB: This action should not be used on arable land where scarce arable plants are known to occur.**

Aims

- To produce a tussocky structure of native grass species next to crops.
- To intercept sediment and fertiliser run-off.
- To provide valuable shelter and breeding areas for wildlife.
- To provide crop pest management from the insects and spiders that over-winter in the margin.

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- This action must be retained in the same location for the duration of the grant award from Welsh Government.
- It is acceptable to have a grass ley as the adjacent crop for a maximum of two years in five as part of a crop rotation, although in this situation a temporary fence should be used to prevent grazing.
- This margin can be located next to autumn and spring sown crops.
- Establish a grass margin of native grass species at least three metres wide and no more than 12 metres wide adjacent to a cereal, oil seed rape, linseed or maize crop (by 1 June) or root crop (by 1 July) in the first relevant year. The arable buffer must be in addition to any buffer strips required by other Universal layer requirements or Optional Actions, for example the 1 metre buffer strip required adjacent to hedgerows in the Universal Code.
- A mixture consisting of 15% tussock-forming grasses and the rest of fine-leaved grasses must be sown. Grass must be sown at 15 kilograms per hectare in autumn or 21 kilograms per hectare in spring.
- Tussock forming grasses include: cocksfoot, timothy, Yorkshire fog.
- Fine-leaved grasses include: red fescue, sheep's fescue, creeping fescue, rough-stalked meadow grass, smooth-stalked meadow grass, common bent, creeping bent, velvet bent, sweet vernal grass, crested dog's tail, meadow foxtail. NB: ryegrass must not be used.
- The area must not be cut more than once every two years. Cut no more than half of the total area in any year.
- Cutting should be undertaken from 1 September to 1 January.
- The date on which the margin is cut must be recorded in your Activity Diary and made available for inspection if requested.
- Keep an Activity Diary and make it available as required.
- Cuttings must be removed to reduce impact upon less competitive species and prevent increased soil fertility. Avoid cutting when the soil is wet to prevent compaction.

Management Restrictions

- Follow the Universal Code, including Part 2, Biodiversity and Habitats which includes no agricultural inputs, such as fertilisers, pesticides and do not cultivate or reseed once established.
- Do not graze.
- Do not clear out existing ditches except to maintain tracks or gateways.
- Do not burn vegetation or other materials.
- Do not roll or chain-harrow.
- Do not supplementary feed.
- Do not plant trees.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities or as a track.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not use to store materials or machinery.

Capital Works

Undertake any capital works agreed with your Field Support Officer to control invasive non-native species.

Z408 - Arable: wild bird seed crops

Description

Wild bird seed crop is designed to provide food for farmland seed-eating birds. Lowland farmland birds, such as yellow-hammer, linnet, grey partridge and tree sparrow, are the fastest declining group of birds in Wales. This action provides additional food in their environment and is particularly valuable over the winter when seed sources are scarce.

Where to apply

This action is only available on improved land.

This action can be rotated or fixed as appropriate.

It will usually help if you sow the wild bird seed crop on sites that:

- receive plenty of sunlight, to help the plants establish.
- are weed-free, as a high weed burden will affect crop establishment.
- are close to nesting, roosting and other farmland bird feeding habitats, where possible. In grey partridge and yellow hammer areas, this action is ideally located adjacent to rough grass margins.
- are next to a field edge, but they can extend into the field.
- are away from buildings to reduce the risk of vermin.
- are away from roads or public rights of way, as regular disturbance stops birds from feeding.
- are away from shaded areas next to dense woodland where establishment will be difficult and deer and rabbit grazing can be a problem.

Choosing to locate the wild bird seed crop to square up cultivated areas could help to speed up farm operations.

Using larger blocks or strips (greater than 0.4 hectares), where possible, will allow more seeds to remain undiscovered for longer and extend the area's value as a food source further into winter.

Where this action is selected, other actions, such as unsprayed crops and retaining stubbles, can be used for the remainder of the field.

For the two-year option (Option 2), if growing more than one area of wild bird seed, establish some of the blocks or margins every year to ensure that there will be a mix of seeds on your farm available every winter.

This action is particularly valuable in areas that have populations of declining, seed-eating, farmland birds such as tree sparrow, yellow hammer, grey partridge and linnet.

Aims

- To provide wild birds food and cover throughout winter and to provide cover during the summer.
- To provide a valuable habitat for a range of invertebrates, including pollinating insects, such as bees and hoverflies, in the summer and autumn. Increased insect abundance may also benefit local bat populations.
- To provide good conditions for rare arable plants to re-establish themselves

Management

Option 1: Annual Establishment

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Establish a wild bird seed crop as a block in a field or margin along the edge of a field.
- The wild bird seed crop to be retained until 15 February in the year following establishment.
- Size requirements:
 - Minimum area 0.1 hectare
 - Minimum 6 metre width
 - Individual blocks of wild bird crop to be a maximum area of 1 hectare
- Establish the crop by sowing a seed mix as follows:
 - Minimum seed rate 15 kilograms per hectare
 - Seed mixture to include a minimum 6 species that includes species from both the cereal and the other species lists, below.
 - Maximum cereal content of 80% by weight.
 - Maximum of 50% content by weight for a single species

- Species that can be included within the mix:
 - Cereals: barley, oats, wheat, rye, triticale
 - Other species: sunflower, linseed, common vetch, quinoa, red millet, white millet, white mustard, brown mustard, sorghum (**not** giant or intermediate), buckwheat, oil radish, fodder radish

Establishment:

- Maintain a 1 metre grass buffer strip adjacent to a hedge, earth bank or watercourse.
- Do not plough or cultivate land before 1 March.
- Sow the crop between 1 March and 1 July.
- The crop can be established through ploughing, traditional cultivation and drilling, minimum tillage or direct drilling.
- If using minimum tillage or direct drilling, the use of an appropriate, approved herbicide to spray off an existing grass sward is required. (This requirement not applicable for farmers certified as Organic)
- Once established, do not use pesticides or mechanical weeding on the wild bird seed crop (fungicides can be used if applied to the seed before sowing).
- Re-sow any area of failed crop.
- Where you have agreed to undertake this action for five years, you must re-establish a 1-year mix annually. This can be at the same or a different location.
- Keep a record of all field activity in the Activity Diary, including evidence of the sowing date and make it available for inspection when requested.

Restrictions

- Do not under sow the crop.
- Do not sow maize or other species not listed.
- Do not graze or cut before 15 February in the year following establishment.
- Do not apply molluscicides unless direct drilled along with the seed. Any molluscicides you use should be recorded in your Integrated Pest Management (IPM) Plan.

- Do not use the wild bird seed crop block or strip for regular vehicular access, turning or storage (for example, storing bales or machinery).
- Do not use pesticides or mechanical weeding. (Fungicides can be used if applied to the seed before sowing).

Option 2: Biennial Establishment

- Establish a wild bird seed crop. Retain the wild bird seed crop until 15 February in the second year following establishment,
- Establish as a block in a field or margin along the edge of a field.
- Size requirements:
 - Minimum area 0.1 hectare
 - Minimum 6 metre width
 - Individual block of wild bird seed crop to be a maximum area of 1 hectare
- Establish the crop by sowing a seed mix as follows:
- Minimum seed rate 40 kilograms per hectare
- Seed mixture to include a minimum 6 species that includes seeds from each of the lists for cereals, biennial species and other species lists, below.
- Maximum of 50% content by weight for a single species.
- Species that can be included within the mix:
 - Cereals: barley, oats, wheat, rye, triticale
 - Biennial species (minimum 20% content by weight): kale, stubble turnip, teasel, chicory
 - Other species: sunflower, linseed, common vetch, quinoa, red millet, white millet, white mustard, brown mustard, sorghum (**not** giant or intermediate), buckwheat, oil radish, fodder radish

Establishment:

- Maintain a 1 metre grass buffer strip adjacent to a hedge, earth bank or watercourse.
- Do not plough or cultivate land before 1 March.
- Sow wild bird seed crop between 1 March and 1 July.
- The crop can be established through ploughing, traditional cultivations and drilling, minimum tillage or direct drilling.

- If using minimum tillage or direct drilling, the use of an appropriate, approved herbicide to spray off an existing grass sward is required. (This requirement not applicable for farmers certified as organic).
- Re-sow any area of failed crop.
- Where you have agreed to undertake this action for multiple years, you must re-establish the 2-year mix every other year. This can be at the same or a different location.
- Keep a record of all field activity in the Activity Diary, including evidence of the sowing date and make it available for inspection when requested.

Restrictions

- Do not under sow the crop.
- Do not sow maize or other species not listed.
- Do not graze or cut before 15 February in the second year following establishment
- Do not apply molluscicides, unless direct drilled along with the seed. Any molluscicides you use should be recorded in your Integrated Pest Management (IPM) Plan.
- Do not use the wild bird seed crop block or strip for regular vehicular access, turning or storage (for example, storing bales or machinery).
- Do not use pesticides or mechanical weeding. (Fungicides can be used if applied to the seed before sowing).

Z411 - Arable: no input field grass strips

Description

No input in-field grass strips across identified preferential flow pathways are required to intercept surface water run-off, trap sediment, reduce in-field erosion, reduce soil loss and protect sensitive areas from diffuse water pollution. They can also help increase infiltration and reduce surface runoff, which may reduce the risk of flooding.

Where to apply

This can be applied to areas within an arable field at risk of soil erosion and run-off to protect areas sensitive to diffuse pollution, for example waterbodies and water-dependent priority habitats. Grass strips can be located along overland surface water flow pathways or across slopes to help reduce soil runoff and erosion.

You can establish the in-field grass strip on:

- Overland surface water flow pathways. These are areas where water naturally flows during rainfall, such as shallow channels, depressions, or the bottom of a valley. Placing grass strips here helps intercept runoff before it causes rills and gullies.
- Sloping fields with the strip placed parallel to the slope and alternated with wide, cultivated strips to slow runoff water and trap sediment and organic material.
- Alongside sloping tracks or roadways to intercept or slow the flow of any surface water run-off from these areas to prevent soil erosion and creation of gullies.
- The total area for this action should be no more than around one-third of the area of a field.
- Alternatively, you could consider converting arable to a permanent grassland Optional Action instead.

The land must be in regular cultivation and used for growing crops in three of the last five years, as evidenced by SAF returns.

This action does not apply to field boundaries, headlands, grass margins and waterside corridors.

Aims

- To protect land at risk of soil erosion and surface runoff by establishing and maintaining a dense tussocky permanent grass strip in an arable field which is between 3 and 12 metres wide.
- The purpose of this action is to:

- Reduce the quantity of sediment, nutrients and pesticides transported through surface water runoff
- Provide habitat for nature
- To provide crop pest management from the insects and spiders that inhabit the grass
- Protect waterbodies

Management Requirements

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Agree the location and width of the grass strip with your Field Support Officer.
- Establish the in-field grass strip consisting of the agreed grass species at the earliest opportunity after the 1 March and no later than the 1 July of the first-year land is entered into the action. The in-field grass strip must be at least 3 metres wide and no more than 12 metres wide.
- The composition of the seed mix and application rates must be appropriate to the location and agreed with the Field Support Officer.
- Carry out cultivations and drilling during appropriate soil and weather conditions to minimise any potential damage to soils.
- Maximise germination and establishment by ensuring soil conditions (temperature and moisture content) are suitable.
- Take all reasonable precautions to prevent soil erosion and runoff from seedbeds.
- Once the grass sward is established, you must maintain it by:
 - Taking one or two cuts in the first 12 to 24 months to encourage the grasses to tiller. Avoid cutting when the soil is too wet as that may cause compaction.
 - Thereafter, cut the strip once every 2 years. Cuttings can be removed if considered necessary to reduce impact upon less competitive species.
 - Maintain the in-field grass strip throughout each subsequent year.
 - Manage grass to ensure there is a longer sward height (minimum of 10 centimetres) in the autumn and winter months.

- Keep an Activity Diary, geotagged photos, and retain seed tickets and invoices.

Management Restrictions

- Follow Part 2 of the Universal Code, Biodiversity and Habitats which includes no agricultural inputs, such as fertilisers, pesticides.
- Do not graze the sward.
- Do not plough, cultivate, chain harrow or roll after the grass is established.
- Do not cut established grass below 5 centimetres.
- Do not re-seed, unless the initial sowing fails.
- Do not allow any vehicle traffic on wet or waterlogged soil.
- Do not use for non-agricultural vehicle activities or as a track.
- Do not allow rutting and bare soil to develop.
- Do not burn vegetation or other materials.
- Do not carry out any earth moving activities.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not use to store materials or machinery.

Z413 - Arable: reversion to permanent grassland on land at risk of soil erosion and run-off

Description

Arable land convert to permanent grassland on land at risk of soil erosion & run-off is required to protect sensitive areas such as water bodies and water courses, Sites of Special Scientific Interest and water-dependent priority habitats from diffuse pollution. Establishment of a dense grass sward in arable fields at risk of soil erosion or surface runoff will help stabilise the soil, reduce nutrient losses and buffer sensitive habitats. It will also reduce surface runoff, which may help to reduce the risk of flooding.

Where to apply

This can be applied to individual whole fields on farmland which has been identified as being at risk of causing soil erosion and run-off, which are adjacent to areas sensitive to diffuse pollution.

The land must be in regular cultivation, used for growing arable crops in three of the last five years, as evidenced by SAF returns.

Do not use this action where there are records of rare arable plants or populations of seed-eating farmland birds.

Aims

- To establish permanent grassland which is defined as land used for at least 5 consecutive years or more to grow grasses, legumes, herbs and wildflowers. Permanent grassland does not include land in a crop rotation such as cereal cropping (wheat & barley etc), stockfeed crops (maize, roots, kale etc) or short rotation grass leys.
- To maintain an undisturbed, continuous dense grassland sward with at least 5 grassland species in the seed mix with no bare ground.
- To prevent and minimise diffuse water pollution from soil erosion and run-off.
- To promote soil stability, reduce nutrient losses and buffer sensitive habitats.
- To help reduce the risk of flooding.

Management

- Follow the Universal Code.
- Establish a diverse grassland sward at the earliest opportunity and no later than the 15 September of the first-year land is entered into the action.
- Use a seed mix with at least five grassland species as agreed with your Field Support Officer (FSO).
- Only use certified seed at the recommended seed rate.
- Carry out cultivations and drilling during appropriate soil and weather conditions to minimise any potential damage to soils. Maximise germination and establishment of crop by ensuring soil conditions (temperature and moisture content) are suitable typically from April to September.
- Take all reasonable precautions to prevent soil erosion and runoff from seedbeds.
- Once the grass sward is established, you must maintain it. To do this, you must manage it in a way that can reasonably be expected to achieve this action's aims. This includes:
 - Graze or cut the sward, or a mix of both, during the spring and summer months with cuttings removed.
 - Manage your grassland so there is a longer sward height in the autumn and winter months, a minimum of 10 centimetres over 80% of the sward, from 1 November to the 15 March.
 - To prevent poaching and compaction, remove livestock if conditions become too wet and before widespread poaching starts to occur. Localised poaching around gateways and watering areas is acceptable provided that poached bare ground does not form large patches and makes up less than 5% cover across the grassland area.
 - The sward must provide sufficient density and variety of rooting depths to prevent in-field soil erosion and run-off, especially during extreme weather events.
 - Keep an Activity Diary, retain seed tickets and invoices.

Restrictions

- Do not disturb the soil if you're converting land to grassland to protect historic features.
- Do not plough, cultivate or re-seed after the grass is established.
- Do not use pesticides and herbicides, except to spot spray and weed wipe injurious weeds and invasive non-native species.
- Do not allow non-agricultural vehicle traffic on wet or waterlogged soil.
- Do not graze or cut established grass below 5 centimetres.
- Do not apply any inorganic or organic fertilisers containing phosphorus such as farmyard manure, slurry, sewage sludge, chicken manure or fish meal, from 15 August until the end of February.
- Do not allow soil phosphorus (P) indices to increase over the duration of this grant award from Welsh Government.
- Do not use the grassland for non-agricultural vehicle activities or as a track.
- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.

Z416 - Intensive grassland: no-input permanent grassland (whole field)

Description

No-input Permanent Grassland (whole field) is an improved field parcel where no agricultural inputs, such as fertilisers and pesticides, can be applied. The purpose of the action is to reduce the quantity of nutrients that impact adjacent habitats, rivers and lakes.

Where to apply

This is a whole parcel action.

This action should only be placed on improved grassland where there is a risk of fertiliser run-off onto adjacent habitat land or into ponds, lakes or rivers.

Aims

- To reduce the impact of nutrient run-off on adjacent habitat land and freshwater features.

Management

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Maintain as permanent grassland.
- Manage by the area by grazing and/or cutting to remove each year's grass growth.
- Supplementary feeding is acceptable as long as:
 - feeding sites are more than 50 meters away from habitat land and water courses.
 - significant poaching does not occur around the feeding sites.

Restrictions

- Follow the Universal Code, including Part 2, Biodiversity and Habitats which includes no agricultural inputs, such as fertilisers, pesticides and do not cultivate or reseed.

Capital works

Undertake any capital works agreed with your Field Support Officer (FSO) to control invasive non-native species.

Z417 - Improved grassland: no-input permanent grass buffer

Description

This buffer zone provides an unfertilised and unsprayed strip of improved grassland between a feature, habitat land or water, and the remainder of the field where agricultural activity, e.g. the application of fertiliser or pesticide sprays, can be carried out.

Where to apply

The buffer must be situated adjacent to habitat land (including hedgerows) or open water (pond, lake, stream, river or ditch) and only over improved grassland.

Aims

- To prevent run-off or pesticide drift onto adjacent habitat land or into open water by providing a buffer from the fertilisers and sprays used in regular agricultural activity within the remainder of the field parcel.

Management

- Follow the Universal Code, including Part 2 - Biodiversity and Habitats.
- Maintain or establish a permanent grassland buffer of between 12 and 24 metres wide that is not fertilized and does not receive any herbicides or pesticides. The width of this buffer must be in addition to any buffers required by the Universal Code or by Universal Actions.
- After establishment, manage by grazing or cutting for hay/haylage/silage to maintain as grassland, with a sward height of at least 5 centimetres.
- Keep a record of any management in the Activity Diary and make it available as required.

Restrictions

- Follow the Universal Code, including Part 2, Biodiversity and Habitats which includes no agricultural inputs, such as fertilisers, pesticides and do not cultivate or reseed.
- Do not burn vegetation or other materials.

- Do not supplementary feed, apart from in extreme weather and in locations agreed with your FSO.
- Do not plant trees.
- Do not carry out any earth moving activities.
- Do not use for non-agricultural vehicle activities or as a track.
- Do not construct tracks, roads, yards, hard standings or any new structures.
- Do not store materials or machinery.

Capital Works

Undertake any capital works agreed with your Field Support Officer (FSO) to control INNS.