Department of Agriculture, Food and the Marine
An Roinn Talmhaíochta, Bia agus Mara

'The European Agricultural Fund for Rural Development: Europe investing in rural areas'.

Green, Low-carbon, Agri-environment Scheme (GLAS)
Specification for Tranche 1 Participants

18th September 2015

Contents

Introduction

This GLAS Specification must be used in the preparation of all GLAS Plans for Tranche 1. This specification overrides all previous draft specifications and any answers to queries by the Department either verbal or written given to date regarding the GLAS Scheme.

Note: It is expected that successful participants will receive a commencement date for GLAS 1 of 1st October 2015 and all dates for completion of actions as set out on page 7 are predicated on this date.

- All actions (excluding Bat, Bird and Bee Boxes) must be selected on LPIS parcels with a utilisable agricultural area (UAA). The only exception is for Commonage which will be paid on the GLAS Commonage Area.
- All area based actions are paid on the net eligible area.
- The allowable actions chart for GLAS is set out in Annex 3 of the GLAS Terms and Conditions.
- Participants must ensure they have control of the lands for the duration of the GLAS contract whether owned, leased or rented.
- Advisors/farmers must ensure that the area, feature and/or linear units entered for payment in GLAS are suitable for the action to be carried out.
- Arable parcel actions must be delivered on parcels declared as 'arable' on the current BPS application.
- If you intend to split a LPIS parcel by digitisation, unless there is a physical stock-proof boundary on the ground, a fence must be put in place by the commencement date of the GLAS contract.
- Works on capital investment items must not commence until notification of commencement of the GLAS contract has been issued.
- Land drainage or reclamation work is not allowed on parcels selected for area based actions. However if existing drains become blocked they may be repaired with as minimum disturbance as possible to the LPIS parcel.
- Catch Crops sown for the purpose of fulfilling greening equivalence criteria under Pillar I of CAP are eligible for a reduced GLAS payment. Double funding is also an issue where GLAS crops are used as EFA or as one of the 2 or 3 crops for Crop Diversification purposes and accordingly there will be reductions in payments where appropriate.
- The burning of stubble is not permitted on LPIS parcels chosen for tillage based actions.
- For a fence to be considered stock proof and fit for purpose, it must consist of permanent stakes and wire appropriate for the livestock type.
- Receipts for work carried out must be retained for the duration of the contract and for three months after the end of the contract.
- Records must be maintained annually for the duration of the contract and for three months after the end of the GLAS contract.
- Where LPIS parcels of Low-Input Permanent Pasture (LIPP) and Traditional Hay Meadow (THM) are situated within designated Natura 2000 site, farmers may choose to forego the Natura payment and receive the LIPP or THM payment under GLAS once the parcel(s) comply with the LIPP and/or THM specification.
- Entrants in the Organic Farming Scheme should refer to Appendix 2 for eligible GLAS actions.
- Phosphorus is permitted to be applied on area based actions in line with the requirements of Statutory Instrument Number 31 of 2014.
- Where more than one margin type is taken on the same LPIS parcel, they cannot overlap on each other.
- Other than the protection and maintenance of archaeological monuments action, no other GLAS actions can be delivered on the site of a National Monument.
- GLAS participants should comply with the Campaign for Responsible Rodenticide Use Code (CRRU) in their daily farming activities – see Appendix 7.

- Where farmers have designated lands, they must ensure they comply with the Activities Requiring Consent (ARC) – see Appendix 13. Where a GLAS participant wishes to undertake an ARC on a GLAS parcel that is in receipt of a GLAS area based payment, they should seek permission for this consent from GLAS Section, DAFM, Johnstown Castle, Wexford
- Lakes are not eligible watercourses for the Protection of Watercourses from Bovines action and for the Riparian Margin action.
- Where the application of the entire GLAS specification for the following Farmland Birds (Twite A, Chough, Corncrake, Hen Harrier and Breeding Waders) threatens farm viability, or could lead to hardship due to inability to produce sufficient fodder for livestock, applicants may remove up to 20% of the GLAS identified area from payment. Entire parcels can be removed, or existing parcels may be split to reserve areas for fodder production or other farm use. These areas will NOT receive payment for the relevant Bird action and no other GLAS action may be selected on them. In exceptional cases and only where the GLAS participant has committed at least 19ha of Farmland Birds to GLAS and delivers these to the full GLAS specification, he/she may remove more than 20% of the entire area from the GLAS specification by the GLAS Advisor completing a Form 1A (see Appendix 18) on the GLAS online system clearly justifying why more than 20% is required. This form must be uploaded on the online system at the time of submitting the GLAS application.
- In addition to above and where the GLAS participant has already delivered 19ha of the Farmland Birds listed in the previous bullet point, the GLAS advisor can set out in Form 1A (see Appendix 18), those LPIS parcels where he/she does not wish to be bound by the fertiliser restriction imposed within the GLAS specification. This form must be uploaded on the online system at the time of submitting the GLAS application.

Abbreviations

ARC	Activity Requiring Consent
BPS	Basic Payment Scheme
GA	General Action
GAEC	Good Agricultural and Environmental Condition
CMP	Commonage Management Plan
CFP	Commonage Farm Plan
HSWS	High Status Water Sites
LIPP	Low-Input Permanent Pasture
LPIS	Land Parcel Identification System
MEA	Maximum Eligible Area
NPWS	National Parks and Wildlife Service
PA	Priority Action
PP	Part Parcel, i.e. only part of the parcel is committed to the GLAS action
SMP	Sustainable Management Plan
SPS	Single Payment Scheme
THM	Traditional Hay Meadow
UAA	Utilisable Agricultural Area
VSWS	Vulnerable Status Water Sites
WP	Whole Parcel, i.e. the whole parcel is committed to the GLAS action
cm	centimetres
ha	hectares
m	metres

Actions: Minimum/ Maximum Units, Completion deadlines and Payment Rate

Action		Minimum	Maximum Payable Units in GLAS	Completion deadline	Payment Rate
Arable grass margin	a) 3m width	10m[1]	7,000m	All tillage crops harvested in 2016	€0.35/m/yr
	b) 4m width	10m[1]	5,000m		€0.50/m/yr
	c) 6m width	10m[1]	3,500m		€0.70/m/yr
Bat Box		3 boxes	15 boxes	31st March 2016	€13/box/yr
Bird Box		1 box	15 boxes	31st March 2016	€6/box/yr
Conservation of Solitary Bees (Boxes)		1 box	5 boxes	31st March 2016	€6/box/yr
Conservation of Solitary Bees (Sand)		1 habitat	2 habitats	31st March 2016	€45/habitat/yr
1. Breeding Waders			*		€366/ha/yr
2. Chough			*		€365/ha/yr
3. Corncrake			*		€364/ha/yr
4. Geese and Swans			*		€205/ha/yr
5. Grey Partridge		200m	*	31st May 2016	€2.10/m/yr
6. Hen Harrier			*		€370/ha/yr
7.1. Twite A			*		€375/ha/yr
7.2. Twite C		0.25ha	3ha	31st May 2016	€900/ha/yr
Catch Crops		10 ha (Priority Area) / 4 ha (General Action)	32 ha	15th September following approval	€155/ha/yr
Commonage Management Plan/Commonage Farm Plan			*		€120/ha/yr
Coppicing of Hedgerows		10m[1]	1,000m	28th February 2017	€2.20/m/yr
Environmental Management of Fallow Land		0.25ha	3 ha	31st May 2016	€750/ha/yr
Farmland Habitat (Private Natura)		0.25ha	*		€79/ha/yr
Laying of Hedgerows		10m[1]	1,000m	28th February 2017	€3.70/m/yr
Low-Emission Slurry Spreading		50 cubic metres	*		€1.20/m³/yr
Low-Input Permanent Pasture / Traditional Hay Meadow			10 ha		€314/ha/yr and €315/ha/yr
Minimum Tillage		10 ha (Priority Area) / 4 ha (General Action)	*	1st crop establishment following approval	€40/ha/yr
Planting a Grove of Native Trees		0.05ha / 250 plants	0.09 ha / 450 plants	31st March 2016	€0.90/plant/yr
Planting New Hedgerow		10m[1]	200m	31st March 2017	€5/m/y
Protection and Maintenance of Monuments	a) Tillage	1	20	31st May 2016	€146/unit/yr
	b) Grassland	1		28th February 2017	€120/unit/yr
Protection of Watercourses from Bovines		10m[1]	*	31st March 2016	€1.50/m/yr
Rare Breeds		0.15 LU	10 LU		€200/unit/yr
Riparian Margin	a) 3m width	10m[1]	*	31st March 2016	€0.90/m/yr
	b) 6m width	10m[1]	*	31st March 2016	€1.20/m/yr
	c) 10m width	10m[1]	*	31st March 2016	€1.60/m/yr
	d) 30m width	10m[1]	*	31st March 2016	€3.60/m/yr
Traditional Dry Stone Wall Maintenance		10m[1]	4,000m		€0.70/m/yr
Traditional Orchards		0.05ha /10 trees	0.05ha /10 trees	31st March 2017	€23.50/unit/yr
Wild Bird Cover		0.25ha (General Action) 1.0ha (Priority Action)	3 ha	31st May 2016	€900/ha/yr

* = Overall maximum payment is €5,000 or €7,000 per GLAS participant per year

[1]Must be in a single continuous length: yr = year, m = metre, ha = hectare and m³= cubic metre

Arable Grass Margins

Objective
To provide a habitat for flora and fauna, increase biodiversity and help protect water quality.

Background
The establishment of an arable grass margin along the full length of an existing field or LPIS parcel boundary will increase the diversity on the farm. Where established along a watercourse it acts as a buffer zone to intercept sediment and nutrients.

Note: The parcels selected for this action must remain declared as arable for the duration of the GLAS contract and the Arable Grass Margin must also remain in the same location for the duration of the GLAS Contract.

Where the margin is established along a watercourse, an additional 2m unsown (with an arable crop) and unfertilised margin must be in place between the watercourse and the arable grass margin.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (boxes/sand), Grey Partridge, Coppicing of Hedgerows, Laying of Hedgerows, Low-Emission Slurry Spreading, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Establish a 3, 4, or 6m grass margin along the full length of a LPIS parcel or field boundary**.** The Arable Grass Margin must be established on all selected tillage parcels on which a tillage crop will be harvested off in 2016.
2.	The location and length (metres) must be identified on the LPIS parcel(s) and marked on the map submitted. The margin(s) must remain in the same location for the duration of the contract. Participants can choose different Arable Grass Margin widths within the same LPIS parcels, but only on different/separate field/LPIS boundaries.
3.	Sow a grass seed mix containing at least 60% Cocksfoot or Timothy or a combination of these at the standard rate of 25-30 kg/Ha. Grass seed labels and receipts must be kept for the duration of the GLAS contract.
4.	Soil cultivation cannot be carried out within the margin once established.
5.	The margin must be mulched, mown or grazed at least once per year, but not between 1st March and the 15th August. Off-takes can be removed.
6.	Fertiliser or lime cannot be applied to the margin.
7.	Pesticides cannot be applied to the margin except for the spot treatment of noxious and/or invasive weeds.

Bat Boxes

Objectives

To improve biodiversity in the farming landscape and replace habitats lost through changes in farming practice. Bats also play an important role in farm pest management as they feed on midges, flies and other potential pest species.

Background

This action is to help to replace natural roost locations for bats that have been removed through the changes in farming practice. It will help to conserve some of the nine bat species found in Ireland. All Irish bat species are protected by the 1976 Wildlife Act and 2000 amendment and the EU Habitats Directive.

Bat boxes are most likely to be used if located in areas where bats feed. Bats in particular favour hedgerows and treelines as navigation routeways and feeding sites. Areas where bats can be spotted zipping around in the evenings are suitable sites to locate a bat roost box.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bird Boxes, Conservation of Solitary Bees (Boxes/sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B,C), Catch Crop WP, Coppicing of Hedgerows, Environmental Management of Fallow Land WP, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP, Traditional Orchards and Wild Bird Cover WP.

Requirements

1.	Install new bat roost boxes in groups of at least three boxes per tree or three boxes per post or three boxes per building. The boxes in each location must face in different directions. Bat Roost Boxes must be in place by 31st March 2016.
2.	The maximum number of Bat boxes is 15, in groups of a minimum of three boxes per tree or per post or per farm building.
3.	The location must be clearly marked on the map and must be maintained in the same position for the duration of the contract
4.	Box(es) can be made from wood or woodcrete and must be draught free.

Recommendations

It is recommended that bat boxes are placed a minimum of 4m off the ground and an area of 1m radius around the Roost Box must be clear of obstacles such as no ivy and/or branches. It is also recommended that boxes are not placed in a lit up area of the farmyard or adjacent to lighting. Bat boxes should ideally be place close to hedgerows or areas of scrub where bats will hunt. Once the box is installed, a marking should be put on the tree or post to identify it for inspection purposes.

Further information

http://www.batconservationireland.org
http://www.batroostireland.org
http://www.highwoodsvolunteers.org.uk/

For diagrams and measurements of bat boxes – see Appendix 8.

Bird Boxes

Objectives

To improve biodiversity in the farming landscape and replace habitats lost through changes in farming practice.

Background

This action is to help to replace natural habitats for birds that have been removed through changes in farming practice. As a result of changes to our countryside, several bird species have come to rely on farm buildings and other structures for nesting habitats.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bat Boxes, Conservation of Solitary Bees (Boxes/sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B,C), Catch Crops WP, Coppicing Hedgerows, Environmental Management of Fallow Land WP, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP, Traditional Orchards and Wild Bird Cover WP.

Requirements

1.	Install a new Bird Box(es) by the 31st March 2016.
2.	A minimum of one Bird Box and a maximum of 15 Bird Boxes.
3.	Place a maximum of one Bird Box per tree or post or on the external wall of a farm building.
4.	The location(s) must be clearly marked on the map and must be maintained in the same position for the duration of the contract
5.	Box(es) can be made from wood or woodcrete and must be draught free.

Recommendations

It is recommended that old nest material is cleaned out annually to prevent carryover of parasites from one nesting season to the next, ideally in February. Bird Boxes should be placed at least 2.5m off the ground. Entrance of the box must face North or North East. Bird Boxes should be tilted slightly forward to allow moisture to drain out. Once the box is installed, a marking should be put on the tree or post to identify it for inspection purposes.

Further information

For diagrams and measurements of a Bird Box – see Appendix 9. Also see
http://www.teagasc.ie/publications/2008/20080417/nestboxes.pdf and
http://www.birdwatchireland.ie/Default.aspx?tabid=270 for further details

Note: Cross compensation between Bird Boxes and Bat Boxes is not allowed, i.e. if you apply to deliver five Bird Boxes and five Bat Roost Boxes, you must deliver five of each to be paid for all 10, i.e. you cannot deliver eight of one and two of the other. The same applies to the Bee Box action.

Conservation of Solitary Bees (Boxes)

Objective

To improve biodiversity in the farming landscape and replace habitats lost through changes in farming practice.

Background

Of the 101 bee species in Ireland, 80 species are solitary bees. Solitary bees look very different from bumblebees. They are much smaller and occur in a range of different sizes and colours. Irish solitary species nest in various different ways. Leafcutter solitary bees nest in hollowed out twigs or bamboo canes. Solitary bees are useful in the pollination of crops as well as having wider biodiversity benefits.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B, C), Catch Crops WP, Coppicing of Hedgerows, Environmental Management of Fallow Land WP, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP, Traditional Orchards and Wild Bird Cover WP.

Requirements

1.	Install a new bee box(es) by the 31st March 2016 on a tree or post.
2.	A minimum of one Bee box and a maximum of five Bee boxes.
3.	The location must be clearly marked on the map and must be maintained in the same position for the duration of the contract.
4.	Box(es) must be made from wood and must be draught free.
5.	Only one bee box can be placed on each tree or post.
6.	Box(es) must be protected from livestock.

Recommendations

It is recommended that the bee box should be placed in close proximity of flowering plants that flower annually from May to September. Bee Boxes should be placed a minimum of 40 cm off the ground, in a sunny location, sheltered from wind and protected from the rain. Once the box is installed, a marking must be put on the tree/post to identify it for inspection purposes.

Further information

http://www.foxleas.com/beehouse.htm

For Diagrams and measurements of a bee box - see Appendix 10.

Conservation of Solitary Bees (Sand)

Objective

To improve biodiversity in the farming landscape and replace habitats lost through changes in farming practice.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Boxes), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B,C), Catch Crops WP, Coppicing of Hedgerows, Environmental Management of Fallow Land WP, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP, Traditional Orchards and Wild Bird Cover WP.

Requirements

1.	Create a bee habitat by placing one tonne of builder's sand in a mound in the corner of a LPIS parcel or field and fence it from livestock by the 31st March 2016.
2.	A minimum of one Bee habitat and a maximum of two Bee habitats.
3.	The Bee Habitats cannot be placed side by side and must be individually fenced from livestock.
4.	The location must be clearly marked on the map and must be maintained in the same position for the duration of the contract.
5.	The Habitat(s) must be strimmed annually and throughout the GLAS contract to keep shading vegetation under control.
6.	Pesticides cannot be applied to the habitat.
7.	Receipts for the sand indicating the weight must be retained for the duration of the GLAS contract.

It is recommended that the bee habitat is positioned in a sunny location ideally south facing slopes and exposed to direct sunlight. You should avoid locations within 20m of a watercourse and/or on steep slope(s).

Conservation of Farmland Birds

1. Breeding Waders

Objective

Maintain and increase the breeding success of breeding waders by halting habitat loss and enhancing habitat availability and suitability. Farmland Bird Actions can only be undertaken on private lands i.e. not on commonage lands.

Background

National and regional numbers of Breeding Waders have suffered severe decline over recent years in particular Lapwing, Dunlin, Redshank, Golden Plover, Snipe and Curlew. This is due to a loss of habitat, especially due to the intensification of agriculture and afforestation of land. Without intervention the population is facing extinction. Breeding waders depend upon extensive farming systems, such as extensive grazing of upland commonages, lowland wet grasslands or Machair grassland, to maintain habitats appropriately, i.e. vegetation for nests and chick-feeding areas during the breeding season. Note: Your Advisor will advise you as to whether you have Breeding Wader parcels on your land when he/she is submitting your GLAS application for you online.

If you select this action the only other actions you can select on this LPIS parcel are:

Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Produce a sward cover by extensive grazing of parcels within the GLAS contract to allow for a mosaic of short, medium and tall vegetation cover to develop between 15th March and 1st July annually. This sward cover should not be achieved through strip or rotational grazing
2.	There must be a grazing enterprise of owned livestock on the holding.
3.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock-proof from the commencement date of the GLAS contract.
4.	Machinery operations cannot be carried out between the 15th March and 15th July on parcels within the GLAS contract.
5.	Fertilisers and other chemicals are not permitted on parcels in receipt of the GLAS Breeding Wader payment. Where noxious and/or invasive weeds are present, they must be controlled ideally by mechanical means; however spot treatment using pesticides may be required in some circumstances.
6.	Rushes, where present must be controlled annually, but not between 15th March and 15th July. The use of a weed wiper for control of rushes is permissible.
7.	Silage or hay cannot be cut from parcels within the GLAS contract.
8.	Reseeding of these parcels is not allowed.

Note: Where rushes are topped before the 15th March and/or after the 15th July, approximately 30% of the rush cover should be retained. It is recommended that parcels entered for the GLAS Breeding Wader payment be stocked at <1.0 LU/ha during the breeding season, the 1st April to 30th June annually.

2. Chough

Objective

To maintain and enhance habitat areas for Chough and increase numbers of breeding Chough in targeted areas.

Background

The Chough is a member of the crow family, about the size of a jackdaw. They have an iridescent black plumage and a striking red curved beak and long red legs. They are largely coastal in distribution in Ireland with the maritime influence helping to maintain short swards which are optimal for access to the prey in the soil. They feed on insects and invertebrates that live in the soil, animal dung especially where the sward is short. A short sward is optimal. The Irish Chough population makes up about 60% of a geographically distinct and isolated NW European population of approximately 1,500 pairs.

If you select this action the only other actions you can select on this LPIS parcel are:

Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Produce a suitable sward by developing an appropriate grazing plan to maintain a tightly grazed short sward throughout the year on the areas within the GLAS contract.
2.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock-proof from the commencement date of the GLAS contract.
3.	Rolling is not permitted between the 15th March and the 15th July annually.
4.	Where a parcel is cut for silage/hay, only one cut can be taken per year.
5.	Heather, bracken and scrub (ARCs – see Appendix 13) where present must be controlled where appropriate, taking cognisance of other habitats and species that may exist onsite, but only between 1st September and 28th February annually.
6.	Maximum chemical nitrogen application is 40kg N/ha per annum on parcels in receipt of the GLAS Chough payment.
7.	The use of Pesticides is not permitted. Where noxious and/or invasive weeds are present, they must be controlled preferably by mechanical means; however spot treatment using pesticides may be required in some circumstances.

3. Corncrake

Objective

Create and maintain cover and nesting shelter for Corncrake birds when they arrive from Africa throughout their breeding season (April to September).

Background

The Corncrakes once bred throughout Ireland but because of the intensification of agriculture their distribution and numbers declined. Corncrakes are now mainly found in County Donegal and parts of West Connaught, particularly the western seaboards of counties Mayo and Galway. Corncrakes require vegetation which is at least 20cm (8 inches) high for the breeding season.

If you select this action the only other actions you can select on this LPIS parcel are:

Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Produce a suitable cover of tall herbaceous vegetation when the meadow is closed off.
2.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock-proof from the commencement date of the GLAS contract.
3.	Grazing, mowing, topping and/or other field operations requiring the use of machinery are not permitted from 15th March to the 10th August annually.
4.	The meadows must be mown or grazed annually but not until after the 10th August.
5.	Mowing must be carried out using the 'centre-out' method. See Appendix 1a.
6.	Early cover areas must exist within the corncrake parcel and can be provided by creating or maintaining an area of tall herb vegetation (e.g. nettles, reed, cow parsley, iris but not trees or shrubs or other dense vegetation) in spring. These areas can also provide late cover following mowing in meadows. Provide at least 0.1ha for every 2ha of Corncrake meadow by leaving a margin of approx 2m wide.
7.	The early cover areas may be cut or grazed after the 10th September annually.
8.	Maximum chemical nitrogen application is 30kg N/ha per annum on parcels in receipt of the GLAS Corncrake payment.
9.	Rushes, where present must be controlled annually, but not between 15th March and 20th August annually. The use of a weed wiper for control of rushes is permissible.
10.	Where noxious and/or invasive weeds are present, they must be controlled preferably by mechanical means but not between 15th March and 20th August annually; however spot treatment using pesticides may be required in some circumstances.

Recommendations

The mower must not exceed 3.6m in width and mowing should take place at low speed.

4. Geese and Swans

Objective

To promote the production of a grass sward to feed overwintering geese and swans including the Whooper Swan, Greenland White Front Goose, Barnacle Goose and Brent Goose.

Background

Ireland hosts a significant proportion of the European populations of Geese and Swans. Many of which are Red and Amber listed. Without intervention, local populations face disturbance.

If you select this action the only other actions you can select on this LPIS parcel are:

Bird Boxes, Bat Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements for Grassland Parcels

1.	Produce a suitable grass sward.
2.	The action must be delivered on full LPIS parcel(s). The LPIS parcels selected must be marked on the map submitted with the GLAS application.
3.	The sward height varies depending on the target species on your land but it must be between 5 -12 cm in height on average, by the 15th October annually.
4.	Close off parcels from livestock from the 15th October to the 31st March of the following year, in each year of the contract.
5.	These parcels must be maintained in grass for the duration of the GLAS contract.
6.	Parcels may be cut for hay or silage between 1st April and 14th October annually but GLAS participants must comply with point 3 above by 15th October annually.
7.	Avoid disturbance of birds during periods of occupancy. During the period 15th October to 31st March annually, field operations requiring the use of tractor machinery should only be undertaken, if absolutely necessary.

Requirements for Tillage Parcels

1.	Establish a winter cereal crop or a catch crop (in accordance with page 34 of this specification) by 15th October annually. Where the participant opts for the catch crop option, it must remain in situ until the 31st March annually. The parcels must be retained in tillage for the duration of the GLAS contract.
2.	The action must be delivered on full LPIS parcel(s). The LPIS parcels selected must be marked on the map submitted with the GLAS application.
3.	Avoid disturbance of birds during periods of occupancy. Field operations requiring the use of tractor machinery should only be undertaken if absolutely necessary, during the period 1st November to 31st March annually.

5. Grey Partridge

Objective

To promote and maintain suitable breeding and foraging habitats for the Grey Partridge.

Background

The Grey Partridge is a red listed bird of Conservation Concern in Ireland. The species has suffered a severe decline in numbers in recent years in Ireland. The last potentially sustainable wild population of Grey Partridge in Ireland is limited to Boora in West Offaly and to North Co. Dublin. The Department has selected a number of Priority areas with the assistance of NPWS, Birdwatch Ireland and the Irish Grey Partridge Conservation Trust. This action provides a grass and cereal based margin. The grass margin provides an appropriate nesting habitat and the mixed cereal margin creates a brood rearing habitat for Grey Partridge chicks.

Note: This action is mandatory for applicants with Grey Partridge approved LPIS parcel(s). Your advisor will be able to advise you as to whether you have eligible Grey Partridge LPIS parcels on your land. Where a participant also chooses arable grass margin in the same LPIS parcel as the Grey Partridge margin, the margins cannot overlap.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margin, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Successfully establish a 12m margin consisting of either: 4m (grass) and 8m (Grey Partridge Mix) or 3m (grass) and 9m (Grey Partridge Mix) by 31st May 2016, along a full length of an existing field or LPIS parcel boundary. .
2.	The LPIS plots selected must be marked on the map submitted. The 3m/4m grass margin must be established from the edge of the field or LPIS parcel boundary with the 8m/9m Grey Partridge Mix margin outside that. The margin cannot be grown in parallel 12m strips within a LPIS parcel or field.
3.	The minimum length of margin that must be delivered at farm level is 200m.
4.	The grass mix must consist of 70% Cocksfoot and 30% Timothy at the grass seed rate of 15kg/ha. Grass seed labels and receipts must be kept for the duration of the GLAS contract.
5.	Grey Partridge Mix must consist of Triticale, Kale, Lucerne, perennial chicory and fodder radish. See seeding rate below. The kale seed must be treated for flea beetle. Seed labels and receipts should be kept for the duration of the GLAS contract.
6.	Pre-sowing weed control can be used. However after the crop has been successfully established, the use of pesticides is not permitted, except for the spot treatment of noxious and invasive weeds.
7.	Fertiliser can be applied in the establishment of the margin at a maximum of half rate for the cereal crop prescribed in Statutory Instrument 31 of 2014.
8.	The margin must be fenced off and stock-proof from the time it is sown.
9.	The management regime for the 8m Grey Partridge Mix is as follows; Year 1 - Establish the 8m Grey Partridge Mix. Year 2 – Leave the entire 8m Grey Partridge Mix in situ Year 3 – Re-establish 4m of the 8m Grey Partridge Mix. Leave the other 4m in situ. Year 4 – Re-establish the other 4m of the 8m Grey Partridge Mix. Leave 4m in situ.

	Year 5 – Re-establish the first 4m of the 8m Grey Partridge Mix. Leave the other 4m in situ. *Note where the farmer is delivering the margin via a 3m drill, the management regime is as follows Year 1 – Establish the 9m Grey Partridge Mix. Year 2 – Leave the entire 9m Grey Partridge Mix in situ. Year 3 – Re-establish 6m of the 9m Grey Partridge Mix. Leave the other 3m in situ. Year 4 – Re-establish the other 3m of the 9m Grey Partridge Mix in situ. Leave 6m in situ. Year 5 – Re-establish the first 6m of the 9m Grey Partridge Mix. Leave the other 3m in situ.
10.	The management regime for the 4m grass margin is as follows; Year 1 – Establish the 4m grass margin. Top/mulch if required Year 2 – Topping/Mulching after 31st August and before 15th January Year 3 – Leave in situ Year 4 – Topping/Mulching after 31st August and before 15th January Year 5 – Leave in situ Note where the farmer is delivering the margin via a 3m drill, the management regime is as follows; Year 1 – Establish the 3m grass margin. Top/mulch if required Year 2 – Topping/Mulching after 31st August and before 15th January Year 3 – Leave in situ Year 4 – Topping/Mulching after 31st August and before 15th January Year 5 – Leave in situ

Seed Mix and Seeding rate for the Grey Partridge Mix

Crop Type	Minimum Seed Rate
Triticale	40 kg/ha
Kale	3kg/ha
Lucerne	4 kg/ha
Perennial chicory	2 kg/ha
Fodder radish	1 kg/ha

Further information

For a map of eligible Grey Partridge land areas - see Appendix 1b.

Recommendation:

Drilling is the preferred sowing method to establish the crop.

6. Hen Harrier

Objective

To promote the maintenance and creation of suitable breeding and foraging habitats for the Hen Harrier.

Background

Hen Harriers are suffering serious population declines nationally and regionally. By improving and managing the habitat of the Hen Harrier you are also benefitting an assemblage of birds including Skylark, Snipe, Meadow Pipit, Curlew, Merlin and Short-Eared Owl. Hen harriers require a mosaic of habitat types. Extensively grazed pasture consisting of taller tussock vegetation, rushy pastures, heather, scrub, and hedgerows are all suitable as hunting/foraging habitats during the breeding season. Typical nesting habitats include: heather, bog and scrub areas.

If you select this action the only other actions you can select on this LPIS parcel are:

Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Produce a suitable sward. This may include heather and/or scrub where that is currently and continues to be eligible for payment, under the Basic Payment Scheme. This heather and/or scrub must continue to be managed appropriately to optimise structural diversity for the benefit of the Hen Harrier in the parcel or field.
2.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock--proof from the commencement date of the GLAS contract.
3.	Traditional grazing practices that promote and maintain the development of tall and tussock vegetation (>10cm high) throughout the parcel must be undertaken. The parcel(s) cannot be grazed intensively by sheep.
4.	Maximum chemical nitrogen application is 40kg N/ha per annum on parcels in receipt of the GLAS Hen Harrier payment.
5.	Noxious and invasive weeds must be controlled by spot spraying or mechanically.
6.	Parcels with rush cover are valuable to the Hen Harrier. Therefore where rushes are present within a Hen Harrier parcel and grazing does not prevent them exceeding approximately 70% of the area of the parcel, they must be cut rotationally by cutting no more than 50% of the area of rushes in a parcel on an annual basis.
7.	Hedgerows on Hen Harrier parcels cannot be cut between 1st March and the 1st October annually.
8.	Hen Harrier parcels cannot be mown for hay/silage unless the parcels are part of the Organic Farming Scheme. In these cases, mowing cannot take place before the 20th July and a margin of approx 2m around the headlands of the parcel must be retained until 15th August at least, after which it can be mown or grazed.

Recommendations

If choosing this action, hedgerow rejuvenation, hedgerow planting and wild bird cover actions are recommended complementary actions which should be selected where relevant to the farm. Selecting these actions can greatly enhance the habitat value for the hen harrier especially where there is a low density of existing landscape features. Hedgerow management should aim to achieve intact and dense hedgerows.

If an area has been covered by dense rushes for a number of years (e.g. as evidenced by lodging of rush or encroachment of scrub) and the farmer now wishes to commence controlling rushes, he/she should contact NPWS in advance, to establish if the site holds roosting/nesting harriers.

7. Twite (A and C)

Objective

To develop and maintain nesting and foraging habitats for Twite birds during the breeding and wintering season.

Background

The Twite is a Red-listed Bird of Conservation Concern in Ireland with recent data indicating a decline in number of 78% since the 1970s. The Twite breeding season occurs on moorland-type farmland habitats (typically characterised by being extensively-grazed dry siliceous heath, often with areas of dense Bracken). Controlled grazing at targeted times of the year on suitable sites will encourage heather and Bracken growth which will develop a suitable nesting habitat for Twite birds.

Actions separated into Twite A and C.

Twite A: Semi-natural/Semi-improved Grassland Field Management Option for Breeding Twite.
Twite C: Twite Winter Feeding Option.

GLAS has two different prescriptions for the Twite depending on the type of vegetation and species mix that exist on the LPIS parcels selected for this action. Your advisor will advise you on which of the option(s) you should take. Only one Twite option can be selected per LPIS parcel.

Twite A

The aim of this option is to create ideal foraging conditions for Twite within grassland fields that have typically, been subject to relatively low levels of agricultural improvement, such that they contain a range of target plant species on which Twite feed (e.g. Sorrel, Autumn Hawkbit, Cat's ear and Dandelion). Actions within this option are designed to encourage seeding of these plants by either late mowing or appropriate grazing management.

If you select this action the only other actions you can select on this LPIS parcel are:

Bat Boxes, Bird Boxes, Conservation of Solitary Bees (boxes/sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Produce a suitable sward by managing grazing and/or mowing of a parcel.
2.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock-proof from the commencement date of the GLAS contract.
3.	Grazing: Where the parcel is grazed, approximately 50% of the field/parcel should be grazed from 15th April to 15th June with the other approximately 50% grazed from 16th June to 15th August annually. There is no restriction on grazing outside of these dates.
4.	Mowing: Where the parcel is mowed for hay or silage, this cannot be undertaken between 15th April and 15th August annually. There is no restriction on mowing outside of these dates.
5.	Pesticides are not permitted, except for spot treatment of noxious and invasive weeds.
6.	Maximum chemical nitrogen application is 35kg N/ha per annum on parcels in receipt of the GLAS Twite A payment.
7.	Topping is not permitted between 15th April and 15th August annually.

Twite C

The aim of this option is to sow a seed crop mix that provides winter food sources for Twite. It is likely that this will benefit other farmland birds and fauna. The winter feed option is a spring-sown crop that is left un-harvested over winter to provide food for farmland birds.

The minimum area to be sown is 0.25ha and the maximum area for payment is 3ha.

If you select this action the only other actions you can select on this LPIS parcel are:

Bat Boxes, Bird Boxes, Conservation of Solitary Bees (boxes/sand), Farmland Habitat (Private Natura), Low-Emission Slurry Spreading, Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Successfully establish a Twite Winter Feed crop by sowing a suitable seed mix, initially by the 31st May 2016.
2.	This action must be delivered on a full LPIS parcel. LPIS parcels selected must be marked on the map submitted with the GLAS application. The Twite Winter Feed Crop must remain in the same place for the duration of the GLAS contract.
3.	The crop mix can be sown either annually or bi-annually (see example 1 and 2 below) in springtime, but not later than the 31st May annually, and the crop must remain in place until the following 15th March annually. The 1 year mix must contain a cereal (either oats or triticale) and at least one species from the following: Oilseed Rape, Radish, Mustard or Turnip. The 2 year mix must contain a cereal (either oats or triticale) and kale.
4.	Drilling is the preferred sowing method; however broadcasting of the seed is permitted. If you are broadcasting, increase the seed rates by between one third (for smaller seeds) and a half (for larger seeds), or roll immediately post sowing, to ensure appropriate establishment.
5.	Pre-sowing weed control can be used however Pesticides cannot be applied post sowing, with the exception of spot treatment with herbicide for noxious weeds and invasive species.
6.	Fertiliser is allowed at a maximum of half rate for the crop prescribed in SI 31/2014, for the relevant cereal crop in the mix.
7.	Each parcel of Twite Winter Feed must remain fenced or otherwise inaccessible to livestock from the time of establishment to the 15th March for annual mixes and from the time of establishment to the 15th March in year two for bi-annual mixes. In the year in which parcels are being fully replanted, livestock may enter the parcel from 15th March to planting time to aid in the decomposition of the trash.
8.	No harvesting of the crop can take place.

Recommendations

Consideration should be given to growing the crop adjacent to cover, for example, beside hedgerows or near woodland or scrub. It may also be grown along a stream or river where it can have the dual benefit of acting as a buffer margin. However, it must be placed outside the 2m buffer zone along a watercourse.

Example 1: One year seed mixes that can be planted annually – can be mixed together

Mix of Seed	Rate of Seed
Oats and Mustard	75 kg/ha of oats 10 kg/ha of mustard
Triticale and Mustard	75 kg/ha of triticale 10 kg/ha of mustard
Triticale and Oilseed Rape	75 kg/ha of triticale 3 kg/ha of oilseed rape

Example 2: Two Year Mix

Mix of Seed	Rate of Seed
Establish half the plot with oats/triticale and half with kale	75 kg/ ha of oats/triticale 3 kg/ha of kale
Kale remains in situ and re-establish cereal crop	75 kg/ha of oats/triticale
Re-establish half as kale and half as cereal	75 kg/ha of oats/triticale 3 kg/ha of kale
Kale remains in situ and re-establish cereal crop	75 kg/ha of oats/triticale
Re-establish half as kale and half as cereal	75 kg/ha of oats/triticale 3kg/ha of kale

For a map of eligible Twite land areas - see Appendix 1c.

Catch Crops

Objective

To establish a catch crop that will absorb nutrients and prevent leaching in the autumn/winter period.

Background

The primary aim for catch crops is for soil protection during fallow periods over the winter period. There is a reduction in soil erosion during heavy rainfall periods from reduced surface run-off and increased water infiltration. While protecting soil against exposure to the elements with foliage, cover crop roots break and condition the soil preventing slumping, thus ensuring easier cultivations and better soil tilth the following spring. Depending on the species, catch crops increase the absorption of residual nitrogen and reduce nitrogen leachate from soil.

Note: This action is only applicable on LPIS parcels declared as 'arable' in and from 2015.

Excluding where catch crops are grown as equivalence for crop diversification, they may be rotated on different LPIS parcels each year of your contract. Where catch crops are rotated, the area sown each year must be at least equal in size to the contract area established in year 1 and the relevant parcel(s) selected must be notified to DAFM through the BPS application annually.

This action is separated into Whole Parcel (WP) and Part Parcel (PP).

Catch Crops WP

If you select this action the only other actions you can select on this LPIS parcel are:

Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Low-Emission Slurry Spreading, Minimum Tillage, Rare Breeds, Traditional Dry Stone Wall Maintenance

Catch Crops PP

If you select this action the only other actions you can select on this LPIS parcel are:

Environmental Management of Fallow Land PP, Low-Emission Slurry Spreading, Low-Input Permanent Pasture PP, Rare Breeds, Traditional Hay Meadow PP, Wild Bird Cover PP

Requirements

1.	Establish a catch crop annually by the 15th September, using light cultivation techniques (i.e. shallow grubbing, ploughing is not permitted) and by either broadcasting or drilling the seed mixture.
2.	Minimum area 10ha (Priority Action) or 4ha (General Action). Catch crops can be rotated from one year to the next, provided the initial area chosen continues to be delivered.
3.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel it must be digitised out and marked on the map submitted with the GLAS application.
4.	The catch crop seed mix must consist of at least 2 species in an integral mix from the list set out below. One species must not account for more than 75% of the mix.
5.	The under sowing or sowing grass crops is not permitted.
6.	The catch crops must remain in situ from the date of sowing to the 1st December annually.
7.	While grazing of catch crops is permitted, this cannot take place until after the 1st December annually and participants should ensure it only takes place on parcels where soil erosion is not considered to be an issue, by your GLAS advisor.

List of Prescribed Catch Crops

COVER CROP SPECIES	SEED RATE KG/HA	COVER CROP SPECIES	SEED RATE KG/HA
Buckwheat	35 – 50	Rye	70 – 90
Crimson Clover	10 – 15	Tillage Radish	5
Berseem Clover	10 – 15	Vetch	12
Forage/Fodder Rape	3 – 5	Leafy Turnip	5
Mustard	15 – 20	Peas	30
Oats (and Black Oats)	75 – 100	Beans	100 – 120
Phacelia	5 – 10		

Additional species may also be considered eligible provided the objectives of the measure are met – email glas@agriculture.gov.ie

Note: Spraying volunteer cereals is permitted within the Catch Crop, to prevent a carryover of disease through the green bridge.

Commonage Management Plan (CMP) and Commonage Farm Plan (CFP)

Objective
To ensure that commonage lands are appropriately grazed and managed to ensure they remain in GAEC and are compliant with eligibility criteria.

Commonages make up approximately 422,000 hectares of the land area in Ireland. The existing cross compliance requirements set down good agricultural and environmental conditions (GAEC) and statutory management requirements (SMRs) which must be followed to ensure the sustainable management of all soils in Iireland, including commonages, many of which are blanket bogs. These peatlands provide a wide range of benefits through agriculture, biodiversity maintenance, carbon storage and sequestration, forestry, water regulation and flood attenuation, fuel for electricity generation and turf for homes, employment, land for wind energy, amenity areas, peat for horticulture and land for housing and infrastructure. Further conditions for certain Natura Sites is set out in Appendix 15.

Note: a GLAS participant will be paid on the GLAS Commonage Area for this action. The GLAS Commonage Area includes certain exclusions specifically Bog, Habitat, Marsh, Rough Grazing and Scrub. This is because the Department recognises that these areas deliver significant biodiversity value on commonages.

GLAS advisors and share-holders should familiarise themselves with the Explanatory note on Commonages which is available on the GLAS section of the Department's website.

If you select this action the only other actions you can select on this LPIS parcel is:
Rare Breeds

Note: Where a farmer has shares on more than one commonage, he/she will be required to indicate that they are willing to sign up to a CMP on all other commonages should one become available. Failure to enter into a CMP on second and subsequent commonage where your first commonage has a CMP will result in your GLAS application being rejected/ terminated and all payments recouped.

Requirements

1.	Only one GLAS Advisor is allowed to prepare and submit a CMP for each individual commonage.
2.	A CMP must list all the herd numbers who are signed up to and who have agreed to be bound by the conditions and farming requirements set out in the CMP.
3.	Each herd number on a CMP must have their individual minimum number of ewe equivalents by 31st December 2016 and retain for the remainder of the GLAS Contract.
4.	Each CMP must reach the total minimum for the commonage by 31st December 2018 and retain for the remainder of the GLAS Contract.
5.	The GLAS advisor and share-holders within the CMP can decide how the total minimum number of ewe equivalents will be delivered, once each herd number on the CMP keeps their individual minimum ewe equivalent by 31st December 2016 to the end of the GLAS contract.
6.	A CMP cannot exceed the total maximum ewe equivalents for the commonage at any time during the GLAS contract.
7.	All livestock must be marked with the herd owners flock colours or markings.
8.	The GLAS advisor in drawing up a CMP for a commonage must be cognisant of the soil type and vegetation on the commonage when prescribing an appropriate grazing regime and other managment practices for a commonage. In addition, the GLAS advisor must

	consider if there is a risk of soil/peat erosion.
9.	The advisor must clearly state all activities which are required to be carried out on the commonage in terms of controlled burning, control of dumping etc. The advisor must also clearly set out within the 5 year CMP contract when and where any of these activities will be undertaken on the GLAS map accompanying your application. Note NPWS approval may be required for some of these activities.
10.	Each herd number must submit their annual sheep census to the Department.
11.	The Maximum Eligible Area (MEA) of the commonage as declared on the 2015 BPS must not decrease over the course of the GLAS contract.

Coppicing of Hedgerows

Objective
To rejuvenate overgrown hedgerows, increase biodiversity and enhance the visual landscape.

Background
Mature hedgerows give the Irish landscape its distinctive character and field pattern and provide an important wildlife habitat especially for woodland flora and fauna. Hedgerows provide a barrier and shelter for livestock, reduce the spread of disease and define the farm boundaries. Coppicing is a way of rejuvenating hedgerows.

Note: External farm boundaries CANNOT be entered for this action and will not be paid unless the external farm boundary adjoins a public road, a private laneway or a watercourse or water body. You must have control of both sides of the hedgerow being coppiced for ongoing maintenance.

If you select this action the only other actions you can select on this LPIS parcel are:
Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Grey Partridge, Hen Harrier, Catch Crops WP, Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and Traditional Orchard.

Requirements

1.	Coppice all selected hedgerows by 28th February 2017.
2.	The minimum linear length that must be coppiced is 10m and this must be in a single continuous length.
3.	The location and length (metres) to be coppiced must be identified on the selected LPIS parcels and marked on the map submitted.
4.	Coppicing must be carried out with a chainsaw or circular saw. Cut stem to less than 15cm from ground level.
5.	Infilling must be carried out if gaps are present in the hedgerow that will not be filled by re-growth from the coppiced hedgerow. Plant a minimum of four plants per metre consisting of whitethorn, blackthorn or holly in line with the existing hedge. Any plants that die must be replaced during the next dormant season. Infilling of gaps must be undertaken by 28th February 2017.
6.	All newly coppiced hedges in a grass or tillage field must be fenced off and protected from livestock, from the time the hedge is coppiced. However where the coppiced hedgerow bounds a private laneway, public road or watercourse, fencing is not required on the laneway/road or water body side as long as the hedge is not being damaged by livestock. The fence must be stock-proof and fit for purpose.
7.	Grass and other competing vegetation must be controlled.
8.	Plants must be trimmed over the course of the contract to ensure a dense hedgerow develops.
9.	Individual mature standard trees within the selected hedgerow must not be coppiced.

Note hedges can only be coppiced between 1st September and 28th February annually.

Further information

As whitethorn and blackthorn are potential carriers of diseases that are harmful to plants in the wider environment, it is mandatory that producers of these plants are registered and inspected by DAFM to ensure their freedom of these diseases. To check if your supplier is properly registered, either email **plantandpests@agriculture.gov.ie** or call 01-5058885. Participants should ensure that they retain the plant passport that accompanied the plants upon purchase, for the duration of the GLAS contract.

Species that are suitable for coppicing include Alder, Blackthorn, Ash, Birch, Hawthorn, Hazel, Holly, Sweet Chestnut, Sycamore and Willow.

Further information is available from the following websites
http://www.peakdistrict.gov.uk
http://www.irishhedgerows.weebly.com
http://www.dardni.gov.uk
http://www.teagasc.ie

Environmental Management of Fallow Land

Objective
To provide food and habitat for ground nesting birds other fauna and insects throughout the nesting season.

Background
Fallow land in arable rotations has been a traditional feature across Europe for much of its agricultural history. However, changes in arable production during the latter half of the twentieth century along with technological improvements have led to reduced areas of fallow land. Fallow or set-aside land has multiple benefits for biodiversity including benefits for: breeding birds, wintering birds from crop stubbles and weed seeds; small mammal (and their predators) and insect and other invertebrates.

Note: This action is only applicable on LPIS parcels declared as 'arable' in 2015. The action cannot move during the GLAS contract.

This action is separated into Whole Parcel (WP) and Part Parcel (PP)

Environmental Management of Fallow Land WP
If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand)

Environmental Management of Fallow Land PP
If you select this action the only other actions you can select on this LPIS parcel are:
Catch Crops PP, Wild Bird Cover PP

Requirements

1.	Establish a fallow area through sowing a grass seed mix by 31st May 2016.
2.	The minimum area is 0.25ha and the maximum area is 3ha.
3.	The action can be delivered on full or split LPIS parcels. Where the action is on a split parcel, it must be digitised out and marked on the map submitted.
4.	Sow a grass seed mix containing at least 60% Cocksfoot or Timothy or a combination of these at the standard rate of 25-30 Kg/Ha. Grass seed labels and receipts should be kept for the duration of the GLAS contract.
5.	Pre-sowing weed control can be used.
6.	After the crop is sown the use of pesticides is not permitted, except for the spot treatment of noxious and invasive weeds (see Appendix 16).
7.	Use of fertilisers (chemical or organic) is not permitted.
8.	The parcel must be mulched or mown at least once a year, but not between 1st March and 1st September annually. Off-takes are not allowed.
9.	The parcel must be fenced off and stock-proof and grazing by livestock is not permitted. Where a parcel is split, a suitable fence must be in place to prevent livestock from entering the fallow land.
10.	The fallow parcel cannot be used as a storage area for any materials (e.g. straw bales, big-baled silage, farm yard manure etc).

Farmland Habitat (Private Natura)

Objective
To avoid farming practices that cause environmental damage and protect vulnerable habitats such as wetlands, which in turn helps to safeguard animals and plants which occupy them.

Background
The aim of Natura sites is to conserve valuable and threatened species and habitats.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A, B and C), Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Traditional Dry Stone Wall Maintenance and Traditional Hay Meadow WP.

Requirements

1.	A Sustainable Management Plan must be completed for each site code which contains private Natura LPIS parcels on your holding. It must address the following a. Specify how the parcel is normally farmed and managed i.e. grazing only, tillage etc. b. Where the parcel is normally grazed, specify the livestock type and number of months grazing takes place on the parcel(s). c. Detail a general site description and specify the dominant habitat type. d. Set stocking levels that avoid eutrophication, overgrazing, undergrazing and erosion.
2.	Supplementary feeding of meal is only permitted on areas where it is currently practiced and appropriate and where the GLAS advisor is of the view that supplementary feeding of meal will not impact on the Natura site. Where it is practiced, the meal troughs should be moved frequently to avoid poaching.
3.	Invasive and noxious weeds (see Appendix 16) must be controlled. Pesticides are permitted for spot treatment application.

Note: If the watercourse is in a designated SAC/SPA and fencing is not allowed by the National Parks and Wildlife Service, a derogation may be sought from Johnstown Castle not to fence the watercourse on these parcels. The Derogation must be sought and approved by 31st March 2016. Where a derogation is approved, the participant will remain eligible for GLAS but will receive no payment for the fencing of watercourse action for the lengths concerned within the derogation. See Appendix 17 – Derogation Form for Specific GLAS actions which must be uploaded on the GLAS online system and emailed to glas@agriculture.gov.ie.

Further information
Where farmers have designated lands, they must ensure they comply with the Activities Requiring Consent (ARC) Appendix 13. Where a GLAS participant wishes to undertake an ARC on a GLAS parcel that is in receipt of a GLAS area based payment, they should seek permission for this consent from GLAS Section, DAFM, Johnstown Castle, Wexford

For an information note for Certain Natura Site types - see Appendix 15.

Laying of Hedgerows

Objective
To rejuvenate overgrown hedgerows, increase biodiversity and enhance the visual landscape.

Background
Mature hedgerows give the Irish landscape its distinctive character and field pattern and provide an important wildlife habitat especially for woodland flora and fauna. Hedgerows provide a barrier and shelter for livestock, stop spread of disease and define the farm boundaries. Laying is a way of rejuvenating hedgerows.

Note: External farm boundaries CANNOT be entered for this action and will not be paid unless the external farm boundary adjoins a public road, a private laneway or a watercourse or water body. You must have control of both sides of the hedgerow for laying and for ongoing maintenance.

If you select this action the only other actions you can select on this LPIS parcel are:
Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Grey Partridge, Hen Harrier, Catch Crops WP, Coppicing of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and Traditional Orchards.

Requirements:

1.	Lay all selected hedgerows by 28th February 2017.
2.	The minimum continuous linear length that must be laid is 10m.
3.	The location and length (metres) to be laid must be identified on the selected LPIS parcels and marked on the map submitted.
4.	Laying cannot be carried out using heavy machinery.
5.	Infilling must be carried out if gaps are present in the hedgerow that will not be filled by re-growth from the coppiced hedgerow. Plant a minimum of 4 plants per metre consisting of whitethorn, blackthorn or holly in line with the existing hedge. Any plants that die must be replaced during the next dormant season. Infilling of gaps must be undertaken by 28th February 2017.
6.	All newly laid hedges in a grass or tillage field must be fenced off and protected from livestock, from the time the hedge is laid. However where the laid hedgerow bounds a private laneway, public road or watercourse, fencing is not required on the lane/road or water body side as long as the hedge is not being damaged by livestock. The fence must be stock-proof and fit for purpose.
7.	Individual mature standard trees within the selected hedgerow must not be laid.
8.	Grass and other competing vegetation must be controlled
9.	Plants must be trimmed over the course of the contract to ensure a dense hedgerow develops.

Note hedges can only be laid between 1st September and 28th February annually.

Further information

As whitethorn and blackthorn are potential carriers of diseases that are harmful to plants in the wider environment, it is mandatory that producers of these plants are registered and inspected by DAFM to ensure their freedom of these diseases. To check if your supplier is properly registered, either email **plantandpests@agriculture.gov.ie** or call 01-5058885. Participants should ensure that they retain the plant passport that accompanied the plants upon purchase, for the duration of the GLAS contract.

Species that are suitable for laying include Alder, Blackthorn, Ash, Birch, Hawthorn, Hazel, Holly, Sweet Chestnut, Sycamore and Willow.

For guidance on laying – see Appendix 11 and also the following websites.
http://www.crann.ie
http://www.hedgelaying.ie
http://www.teagasc.ie

Low-Emission Slurry Spreading

Objective

To improve the recycling of organic fertiliser and to contribute to reduced nitrous oxide emissions, ammonia emissions and odours.

Background

The method and timing of slurry application are two main factors that determine the utilization efficiency of these nutrients by the growing crop, whether grass or arable. Using Low-Emission technology improves the utilisation efficiency of slurry compared to the traditional splash-plate. Other benefits include, reduced phosphorus run-off, a wider window of opportunity to apply slurry, reduced tainting of the grazing sward and reduced smell from slurry spreading.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (ABC), Catch Crops WP and PP, Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Input Permanent Pasture WP and PP, Minimum Tillage, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and PP and Wild Bird Cover WP and PP.

Requirements

1.	All of the slurry applied on the farm (produced and/or imported) must be spread by one or a combination of the following methods for each year of the contract; a. Band spreading; b. Injection systems ; c. Trailing shoe.
2.	All slurry must be spread in compliance with SI 13/2014 (the Nitrates Regulations).
3.	Provide documentary evidence to confirm; the spreading method used and the volumes spread on the holding. For example, a calculation of slurry produced, imported and spread and/or a receipt from the contractor or other evidence as required.
4.	Farmer must indicate on his annual slurry declaration return to Johnstown Castle, the LPIS parcels where the slurry was spread.

Low-Input Permanent Pasture

Objective
To promote a grassland management system that through appropriate grazing levels and restriction on fertiliser and pesticide use results in a more diverse sward with an increase in flora and fauna.

Background
Permanent pastures extensively grazed and managed with low inputs sustain a greater variety of plants and wildlife.

This action is separated into whole parcel (WP) and part parcel (PP)

Low-Input Permanent Pasture WP
If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Protection of Archaeological Monuments (Grassland), Protection of Watercourses from Bovines, Rare Breeds, Traditional Dry Stone Wall Maintenance

Low-Input Permanent Pasture PP
If you select this action the only other actions you can select on this LPIS parcel are:
Catch Crops PP, Low-Emission Slurry Spreading, Rare Breeds, Traditional Hay Meadow PP, Wild Bird Cover PP

Notes: Where the Low-Input Permanent Pasture parcel is situated within a designated Natura 2000 site, farmers can choose to be paid for this action rather than Natura once the parcel complies with the Low-Input Permanent Pasture Specification and they comply with the Natura designation.

GLAS participants that are approved for a Nitrates Derogation in any year of the GLAS contract will be ineligible for this action and there will be claw-backs of any Low-Input Permanent Pasture payments made to date.

Participants who select this action must have a grazing enterprise of owned livestock on the holding.

Requirements

1.	Select a suitable pasture that contains a minimum of four grass species (excluding Ryegrasses), for example cocksfoot, timothy, bent grasses, fescues, sweet vernal, Yorkshire fog, etc and a minimum of three other non-grass plant species, for example plantain, chickweed, trefoils etc and these must be reasonably dispersed throughout the field. There must be less than 30% Ryegrass cover.
2.	The action can be delivered on full or split LPIS parcel(s). Where the action is on a split parcel, it must be digitised out and marked on the map submitted. Parcels must be fenced and stock-proof from the commencement date of the GLAS contract.
3.	The maximum area payable is 10ha of Low-Input Permanent Pasture and/or Traditional Hay Meadow.
4.	Selected LPIS parcels must have been declared as forage on the SPS for the previous eight years.
5.	The sward must be maintained by grazing and there must be a grazing enterprise of owned livestock on the holding.
6.	Parcels cannot be cut for hay or silage.
7.	Parcels cannot be topped between 15th March and the 15th July annually.

8.	Maximum chemical nitrogen application is 40kg N/ha per annum.
9.	Lime may be applied in accordance with soil analysis results, if it has been traditionally spread on the parcels.
10.	Pesticides are not permitted, except for spot treatment of noxious and invasive weeds and rushes. Where present, rushes must be controlled either mechanically, by weed wiping and/or by spot spraying. While weed wiping and/or spot spraying can take place between 15th March and 15th July, topping to control rushes cannot take place between these dates.
11.	Supplementary meal feeding may take place on these parcels, provided meal troughs are moved to avoid poaching. Where the parcel is a Natura parcel, the GLAS advisor and participant should ensure that the supplementary feeding of meal does not impact negatively on the Natura site.

Note: In GLAS there will be no cross compensation allowed between Low-Input Permanent Pasture and Traditional Hay Meadows. Therefore if a farmer commits to deliver 5ha of Low-Input Permanent Pasture and 5ha of Traditional Hay Meadow, they must deliver 5ha of each i.e. they cannot deliver 6ha of Low-Input Permanent Pasture and 4ha of Traditional Hay Meadow.

Minimum Tillage

Objective
To improve soil structure and increase soil organic matter.

Background
Minimum tillage means sowing a crop without inverting the soil i.e. the soil cannot be ploughed. Minimum tillage has many advantages for both the farmer and the land. It can save fuel and time for the farmer. It reduces damage done to soil by rain, the breakdown of soil structure and reduces the formation of a hard pan in the soil. This measure also protects archaeological monuments within the topsoil and subsurface of the soil.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Catch Crops WP, Coppicing of Hedgerows, Laying of Hedgerows, Low-Emission Slurry Spreading, Rare Breeds and Traditional Dry Stone Wall Maintenance

Requirements

1.	Establish a crop using minimum tillage equipment, i.e. it must be sown without inverting the soil (soil cannot be ploughed).
2.	A minimum area is 10ha where it is taken as a priority action and 4ha where it is taken as a general action must be delivered.
3.	This action must be delivered on the same full LPIS parcel(s) for the entire contract period. The LPIS plots selected must be marked on the map submitted.
4.	The action must be delivered on the next crop establishment following approval into the scheme and for all subsequent years of the contract.

Planting a Grove of Native Trees

Objective
To encourage the planting of small groups of trees to provide a valuable pocket habitat and opportunity for carbon sequestration.

Background
Small groups or groves of trees provide a wide range of ecological benefits and create pocket habitats for both plants and animals. These benefits are increased further through the use of native tree species which colonised Ireland naturally after the last Ice Age. This measure will introduce more native trees into the Irish landscape, promoting our native biodiversity.

Note: Trees cannot be planted in hedgerows that are being entered for the coppicing or laying of hedgerow option or the planting of new hedgerow action. Trees cannot be planted on Natura land.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (grassland), Protection and Maintenance of Archaeological Monuments (tillage), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Establish a grove of native trees in a single location only, i.e. you cannot plant the trees in a number of locations in a LPIS parcel or field.
2.	A minimum area of 0.05ha containing 250 trees and/or maximum area of 0.09ha containing 450 trees must be planted in the first dormant season after receipt of written approval into GLAS and in any event before the 31st March 2016 in one location identified on a LPIS parcel and marked on the map submitted.
3.	Plant native tree species only, as listed in Appendix 4 using a minimum of two of the species listed.
4.	Trees must be derived from suitable seed sources from within Ireland which are regarded as being indigenous in nature. See Note A below.
5.	Planting cannot take place within the vicinity of overhead wires (see Note B below), within 20m of railway line(s) or within 60m of a dwelling house(s), or within 5m of a watercourse.
6.	Trees must be planted in rows 2m apart with a distance of 1m between the plants within the rows.
7.	Failed or dead trees must be replaced during the next dormant season.
8.	Trees must be protected from livestock and fenced off from the time of planting, until the end of the contract.
9.	Grass and other competing vegetation must be controlled around the trees, until they have become established.

Note A: These plants must be purchased from producers and suppliers who are registered under the Forest Reproductive Material Directive, and who can provide a 'Provenance Declaration Form' (see Appendix 6) for the material purchased, certifying that the plants used are derived from suitable seed sources from within Ireland which are regarded as being indigenous in nature. This requirement is intended to help protect Ireland's gene pool regarding native trees.

Note B: The required clearance distance depends on the voltage of the overhead line.

Power line type	Clearance distance (from centre of line)
Low voltage (230/400V)	5 m
10 kV and 38 kV	10 m
110 kV	31 m
220 kV	34 m
400 kV	37 m
Note: All trees must be outside their falling distance from line support structures.	

Recommendation:
The plants must be a minimum of 40cm tall when planted.
The physical conditions of each site, e.g. soil type, drainage, exposure, etc., must be considered along with suitable species to ensure that they will succeed in such sites.

Planting New Hedgerow

Objective

To establish new hedgerows on farms to increase biodiversity, to enhance the visual landscape and to help protect water quality.

Background

Mature hedgerows give the Irish landscape its distinctive character and field pattern and provide an important wildlife habitat, especially for woodland flora and fauna. Hedgerows provide a barrier and shelter for livestock, stop the spread of disease and define the farm boundaries.

Where the Planting New Hedgerow action is taken on a farm boundary, the GLAS participant must ensure it is planted in such a manner that he/she has control of both sides of the new hedgerow and that he/she can maintain both sides of the new hedgerow.

Note: Where a fence has been erected under TAMS, the Planting of New Hedgerow Action cannot be planted inside of this fence. Trees cannot be planted on Natura land.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Low-Emission Slurry Spreading, Planting A Grove of Native Trees, Protection and Maintenance of Archaeological Monuments (Grassland), Protection and Maintenance of Archaeological Monuments (Tillage), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance and Traditional Orchards.

Requirements

1.	Plant a minimum continuous length of 10m of new hedgerow consisting of 6 plants per metre in a double row of whitethorn and/or blackthorn and/or holly before 31st March 2017.
2.	The location and length (metres) must be identified on the LPIS parcel(s) and marked on the map submitted. The new hedge must be a standalone hedge and not placed against an existing hedgerow or stone wall.
3.	Plants must be purchased from registered producers or registered growers – see below.
4.	All newly planted hedges whether planted in a grass or tillage field must be fenced off and protected from livestock, from the time the hedge is planted. However, where the newly planted hedgerow bounds a private laneway, public road or watercourse, fencing is not required on the laneway/road or water body side as long as the hedge is not being damaged by livestock. The fence must be stock-proof and fit for purpose.
5.	Grass and other competing vegetation must be controlled around the plants, until they have become established.
6.	Plants must be trimmed over the course of the contract to ensure a dense hedgerow develops.
7.	Failed or dead plants must be replaced at the earliest possible planting opportunity.

The Planting New Hedgerow Action cannot overlap with the Planting a Grove of Native Trees Option or the Traditional Orchards Option.

Further information

As whitethorn and blackthorn are potential carriers of diseases that are harmful to plants in the wider environment, it is mandatory that producers of these plants are registered and inspected by DAFM to ensure their freedom of these diseases. To check if your supplier is properly registered, either email **plantandpests@agriculture.gov.ie** or call 01-5058885. Participants should ensure that they retain the plant passport that accompanied the plants upon purchase, for the duration of the GLAS contract.

Protection and Maintenance of Archaeological Monuments

Objective
To enhance and maintain visual archaeological monuments in the farm landscape.

Background
All known archaeological monuments in the state are marked on maps on the National Monuments Service website and can be found at the following link:
http://webgis.archaeology.ie/NationalMonuments/FlexViewer/

This action aims to enhance and maintain archaeological monuments visible in both tillage and grassland landscapes. All monuments entered for this action must be visible and must be on parcels with a reference area, i.e. on parcels with a UAA.

Note: Only monuments on The Record of Monuments and Places list and that are visible in the opinion of the advisor on the LPIS parcel(s) are eligible for this action. Monuments on Commonage land are not eligible for this action. Monuments on LPIS parcels with a zero reference area (for example a farmyard) are not eligible for payment in this action.

There are two options:

1. Establish and maintain a buffer margin around a visible archaeological monument in a tillage parcel(s).
2. Managing vegetation around a visible archaeological monument in an eligible grassland parcel(s).

Option 1: Establish and maintain a buffer margin around a visible monument in a tillage parcel(s)

The aim of this option is to create a buffer margin to protect and maintain visible archaeological monuments in a tillage field. If you have monuments on a tillage parcel(s) and you take this action, you must take Option 1, i.e. put in place a grass margin.

If you select this action the only other actions you can select on this LPIS parcel are:
Arable Grass Margin, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Low-Emission Slurry Spreading, Planting a Grove of Native Trees, Planting New Hedgerow, Rare Breeds, Traditional Dry Stone Wall Maintenance and Traditional Orchards.

Requirements

1.	Establish a 10m wide grass margin by sowing a grass seed mix by 31st May 2016.
2.	The action must be delivered on a LPIS parcel(s). The monument(s) must be clearly identified on the map accompanying your GLAS application.
3.	The action must be carried out on at least 1 monument.
4.	The margin must extend from the external outer boundary of the monument. The margin must be established by light cultivation techniques – i.e. no ploughing is permitted.
5.	Soil cultivation or tractor operations cannot be carried out within the margin once established.
6.	The margin must be maintained by hand mowing or strimming throughout the year and for the duration of the contract.
7.	Grazing by livestock is permitted provided that no damage is caused to the monument.
8.	Pesticides are not permitted, except for spot treatment of noxious and invasive weeds (see Appendix 16).

9.	Where there is encroaching vegetation (excluding established healthy trees) on/near the monument, this must be controlled but not between 1st March and 31st August annually. Note roots of plants cannot be removed. Further detail on this is set out in option 2 below.

Option 2: Managing vegetation around a visible archaeological monument in an eligible grassland parcel(s)

The aim of this option is to control certain types of re-seeded or quickly colonising trees and invasive woody plants and other problematic plants around a visible archaeological monument.
Note: Any proposed works to a Recorded Monument that involves digging/ ground disturbance must be notified in advance to the National Monuments Service of the Department of Arts, Heritage and the Gaeltacht for their consideration.

Note: Care must also be taken to ensure that the proposed treatment of trees and/or other plant species, i.e. felling, lopping, coppicing, pollarding, pruning, cutting, thrashing or spraying is consistent with the provisions of the Forestry Act 1946.

Note: Under no circumstances should burning take place on or near the monument, as this can also cause damage to underlying archaeological deposits.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Hen Harrier, Twite (A and B), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Planting a Grove of Native Trees, Planting New Hedgerow, Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and Traditional Orchards.

1.	Manage vegetation on or around a visible monument initially by 28th February 2017 and annually thereafter.
2.	The action must be delivered on a LPIS parcel(s). The monument(s) must be clearly identified on the map accompanying your GLAS application.
3.	The action must be carried out on at least 1 monument.
4.	Remove all encroaching vegetation (excluding established healthy trees) on/near the monument. Roots of plants cannot be removed.
5.	All works must be done with hand tools (e.g. with a saw, slash hook, secateurs and/or pruning shears) or motor-manually (e.g. with a chainsaw/brush cutter/strimmer). Tractors or diggers cannot be used to cut or remove vegetation.
6.	Small trees and plants like gorse, whins, rhododendron, laurel and other individual plants should be removed by cutting at the base and treating the stump with an appropriate herbicide to prevent re-growth.
7.	Larger trees should be pruned to above head height to open up access to the site or monument. Pollarding of trees is allowed.
8.	Management of vegetation must NOT be carried out between 1st March and 31st August annually. The one exception to this rule is the cutting or thrashing (flailing) of bracken and ferns which can be carried out in the middle of June.
9.	Remove dead or unstable trees: Cut as close as possible to ground level, leave stump in place and replace root plate in the existing depression.
10.	Felled or dead trees must be cut into pieces where they fall and the pieces taken away.

11.	Strim ground cover within 3m of the exterior of the monument.
12.	The killing or removal of well-established ivy or trees, whose root systems have invaded the fabric of masonry structure, is not permitted.
13.	Spot treatment of herbicides is permitted. All herbicides must be systemic.
14.	Any fallen masonry discovered during work must be left untouched.
15.	New shoots of woody plants which become established in the walls of the structure must be removed provided this does not damage or de-stabilise the monument.
16.	The interior of masonry monument(s) must be inaccessible to livestock. Ensure that new vegetation does not take hold within the structure, in the absence of grazing. This should not involve any degree of ground disturbance.
17.	Grazing by livestock throughout the year is permissible around the monument(s) but care should be taken in the autumn and winter months to ensure no damage is caused to the monument(s).

Recommendations

In order to prevent damage to the site or monument through ground disturbance and to avoid causing a sudden loss of habitat, it is best to make a number of small interventions over a number of years rather than to do the work in one single episode. For example, berry-bearing trees are an important food source in the winter months for birds. Gorse, briars and high grasses may shelter ground-nesting birds, whilst bracken can be home to other rare plant species, invertebrates and small mammals.

Place angular boulders at the base of the corner of the structure to prevent livestock from rubbing against the monument.

In the case of bracken, the ideal method is the manual cutting and crushing of growing fronds which causes the gradual starvation of the rhizome system. Cutting or thrashing is best done around the middle of June and again six weeks later for at least three successive years.

Protection of Watercourses from Bovines

Objective
To protect water quality by excluding bovines from watercourses.

Background
Livestock grazing along a watercourse can lead to direct pollution of water with urine and faeces which could mean pathogens entering the water. This can destroy aquatic habitats and lower the quality of water that could potentially enter the water that humans use. Excluding bovines from watercourses will prevent the breakdown of vegetation on the banks of the watercourse. It will also prevent pollution of the watercourse from bovines.

Note: Tier 1 applicants in high status water sites must select this action.

Applicants with vulnerable water status sites (wet) must select this action to become eligible as a Tier 2(a) applicant, unless they have a Tier 1 PEA other than High Status Water Sites. Watercourses on commonage and/or non-contract lands are not eligible for this action and do not have to be fenced. All watercourses are identified and marked on the GLAS online mapping system. Lakes are not eligible watercourses for this action. Where GLAS applicants have a parcel(s) of mountain land or rough grazing that is NOT grazed by bovines and will NOT be grazed by bovines at anytime during the GLAS contract, there is a facility in the GLAS online system to remove this action from such a parcel(s), if the GLAS Advisor/applicant wishes to do so.

In addition, where a watercourse is marked on the GLAS online system, but there is no watercourse on the LPIS parcel(s) concerned, there is a facility in the GLAS online system to remove this action from such a parcel(s).

Where a LPIS parcel is being split within one of the farmland bird actions (see page 5) to allow hay/silage to be cut and a HSWS or Vulnerable (wet) site exists on this parcel, the mandatory validation to deliver the 'Protection of Watercourse from Bovines Action' will be removed automatically to allow the parcel to be split.

Note: To be eligible for this action, participants must have had bovines on their holding in 2013 and for the duration of the GLAS contract and all grass fields contiguous to the watercourse(s) must be fenced for the duration of the contract on all contract lands. It is permissible to move livestock across the watercourse(s) to an isolated parcel(s) provided that both sides of the watercourse are fenced and the livestock are not crossing the watercourse regularly.

Parcel(s) chosen for the Protection of Watercourses from Bovines action must remain in grass for the period of the contract. Any tillage parcels on these holdings which are contiguous to the watercourse(s) and are converted to grass during the GLAS contract must be fenced.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds - Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B,C), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (grassland), Rare Breeds, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and Traditional Orchards.

Requirements

1.	Participants must have had bovines on their holding in 2013 and retain them for the duration of the GLAS contract. Bovines must be owned.
2.	Fence off all watercourse(s) which are identified on the GLAS online system, a minimum of 1.5m from the top of the bank of the watercourse to exclude bovines by 31st March 2016.
3.	The LPIS parcels selected must be marked on the map submitted.
4.	The fencing must be stock-proof, fit for purpose and be undertaken with permanent stakes and wire.
5.	Livestock drinking points are not permitted. An alternative water supply must be provided for livestock.

Note: If the watercourse is in a designated SAC/SPA and fencing is not allowed by the National Parks and Wildlife Service, a derogation may be sought from Johnstown Castle not to fence the watercourse on these parcels. The Derogation must be sought and approved by 31st March 2016. Where a derogation is approved, the participant will remain eligible for GLAS but will receive no payment for the fencing of watercourse action for the lengths concerned within the derogation. See Appendix 17 – Derogation Form for Specific GLAS actions which must be uploaded on the GLAS online system and emailed to glas@agriculture.gov.ie.

Rare Breeds

Objectives
Retain and where possible increase populations of specific rare breeds to ensure long term survival of the breeds.

Note: Priority entry is only available to those who have been registered with a relevant breed society and have registered livestock with the relevant breed society in 2012 and/or 2013.

If you select this action the only other actions you can select on this LPIS parcel are:
Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (ABC), Catch Crops WP and PP, Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Input Permanent Pasture WP and PP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection of Archaeological Monuments (Grassland), Protection of Archaeological Monuments (Tillage), Protection of Water Courses from Bovines, Traditional Dry Stone Wall Maintenance, Traditional Hay Meadow WP and PP, Traditional Orchards and Wild Bird Cover WP and PP

Eligible livestock species

Cattle	Horses and Ponies	Sheep
Kerry Dexter Irish Maol (or Moiled)	Connemara Pony Irish Draught Kerry Bog Pony	Galway

Note: The maximum number of livestock units that can be claimed for annual payment is 10.

Payment will be made in arrears based on the monthly average livestock units of owned registered animals over the previous recording year.

Livestock units for consideration for payment are calculated as follows:

Bovines six months to two years	0.6LU
Bovines over two years	1.0LU
Equines over six months of age	1.0LU
Ewe (+/- lambs at foot)	0.15LU
Ewe lamb (six months – one year)	0.10LU
Ram	0.15LU

Note: The above livestock unit equivalents apply when an animal is kept for a full year. Livestock Passports and where applicable pedigree certificates must be in GLAS participants own name or where in joint names at least one of those persons must also be on the herd number used when applying for GLAS.

Requirements
Participants must;

1a.	For Bovines and Ovines be a member of a breed society approved by the Department of Agriculture, Food and Marine, for the period of the contract.
1b.	For Equines be a member of a studbook approved by the Department of Agriculture, Food and Marine, for the period of the contract.
2a.	For Bovines and Ovines register all progeny from a purebred mating with the relevant breed society where they are seeking a GLAS rare breed payment on the animal.

2b.	For Equines, register all progeny from a purebred mating with the relevant studbook where they are seeking a GLAS rare breed payment on the animal.
3.	Maintain an up-to-date monthly record of all registered animals owned by you.
4.	Complete and return the annual Rare Breeds Record Sheet for payment.

Requirements for the different types of livestock:

Bovines:

1.	All females 6 months to 2 years of age will be considered for payment.
2.	An adult female(s) (over 2 years of age) must be mated to a purebred male of the same breed at each mating. Breeding females must produce registered offspring before the end of the contract, otherwise there will be full clawback.
3.	All bulls 6 months to 2 years of age will be considered for payment.
4.	Bulls greater than 2 years of age up to a maximum of 1 bull per 5 cows will be considered for payment.

Equines:

1.	All equines must be registered in an approved studbook and have a studbook passport with pedigree recorded on sire and dam.
2.	All registered females and entire males between 6 months and 3 years of age will be considered for payment
3.	An adult female (s) (over 3 years of age) must be mated to a purebred male of the same breed at each mating. Breeding females must produce registered offspring before the end of the contract; otherwise there will be full clawback.
4.	Entire adult males greater than 3 years of age that have met the inspection requirements within their studbook of origin up to a maximum of 1 stallion per 5 mares will be considered for payment.

Ovines:

1.	All females over 6 months of age will be considered for payment.
2.	An adult female (s) (over 1 year of age) must be mated to a purebred male of the same breed at each mating. Breeding females must produce registered offspring before the end of the contract, otherwise there will be full clawback
3.	Males under 1 year of age are not eligible for payment.
4.	Males over 1 year of age will be considered for payment up to a maximum of 1 ram per 5 adult ewes.

Further information:

For a list of Rare Breed societies – see Appendix 12.

Riparian Margins

Objectives
Protect watercourses by creating linear buffer zones.

Background
Our watercourses are an important natural resource that needs protection from pollution and degradation. Livestock grazing in the riparian zone can lead to direct pollution of water with urine and faeces which can lead to pathogens entering the water. This can destroy aquatic habitats and lower the quality of water that could be used for human consumption. Riparian margins will stabilise riverbanks and intercept nutrients transported in overland flow.

Notes: You can only select this action if you have watercourses on your land that are identified and marked on the GLAS online mapping system. Watercourses on commonage land are not eligible for this action. Riparian margins are only eligible in grassland parcels. Lakes are not eligible watercourses for this action.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (grassland), Traditional Dry Stone Wall Maintenance and Traditional Orchards.

Requirements

1.	Establish a 3, 6, 10, or 30m riparian margin by fencing it off by the 31st March 2016. An access point for machinery into the margin is permitted to keep it managed. Livestock are not permitted to graze the margin from the time of its establishment until the end of the GLAS contract.
2.	Identify the location of the riparian margin on the LPIS parcel selected and mark on the map submitted with your GLAS application.
3.	Participants can choose different Riparian Margin widths within the same LPIS parcels/field but only on different/separate field/LPIS boundaries.
4.	Margin width is measured from the top of the bank or the edge of vegetation (if scrub is present) into the field.
5.	The margin must be mulched or mown at least once per year but not between 1st March and the 15th August each year. Off-takes are allowed.
6.	Fertilisers cannot be applied.
7.	Pesticides are not permitted, except for spot treatment of noxious and invasive weeds.

If the watercourse is in a designated SAC/SPA and fencing is not allowed by the National Parks and Wildlife Service, a derogation may be sought from Johnstown Castle not to fence the watercourse on these parcels. The Derogation must be sought and approved by 31st March 2016. Where a derogation is approved, the participant will remain eligible for GLAS but will receive no payment for the fencing of watercourse action for the lengths concerned within the derogation. See Appendix 17 – Derogation Form for Specific GLAS actions which must be uploaded on the GLAS online system and emailed to glas@agriculture.gov.ie.

Traditional Dry Stone Wall Maintenance

Objective

To maintain and enhance the network of traditional freestanding dry stone walls, increase biodiversity and enhance the visual landscape.

Background

Stone walls are an important feature in the landscape. Walls offer shelter to livestock, protection to wildlife and are an important habitat for both flora and fauna. Dry stone walls are walls built using stones that sit comfortably without the use of mortar and constructed in a style traditional to the locality. Where the GLAS participant is also in the Burren Farming for Conservation Programme and is in receipt of the stone wall payment, they are not eligible for this action.

If you select this action the only other actions you can select on this LPIS parcel are:

Arable Grass Margins, Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Farmland Birds – Breeding Waders, Chough, Corncrake, Geese and Swans, Grey Partridge, Hen Harrier, Twite (A,B,C), Catch Crops WP, Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Low-Input Permanent Pasture WP, Minimum Tillage, Planting a Grove of Native Trees, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins, Traditional Hay Meadow WP and Traditional Orchards

Note: Stone walls entered for this action must be accessible and visible for maintenance. Walls with scrub on or against them are not eligible for payment. External farm stone walls entered for this action are payable at half rate except for external stone walls that front onto a public roadway, private laneway or water body where the farmer has control over both sides of the wall for maintenance. Internal wall lengths can only be counted once and must be maintained on both sides. A stone wall that bounds a farmyard is eligible for payment at the full rate provided the participant has control of both sides of the wall for maintenance.

Requirements

1.	Maintain traditional freestanding dry stone walls by replacing stones that may have fallen off the top of the wall or repair walls if/where stones have fallen down. Walls that have fallen or partly collapsed must be rebuilt in the same style as other walls in the locality. Walls built with mortar, are not eligible for the action.
2.	The location and length (metres) must be identified on the LPIS plot(s) and marked on the map submitted.
3.	The minimum continuous length of stone wall for maintenance is 10m
4.	All walls entered for this action must be maintained from the commencement of the contract to the end of the GLAS contract.

Traditional Hay Meadow

Objective
To promote the maintenance of a traditional method of forage conservation that is beneficial to grassland flora and fauna.

Note: Where the Traditional Hay Meadow is situated within a designated Natura 2000 site, farmers can choose to be paid for this action, rather than Natura once the parcel complies with the Traditional Hay Meadow Specification and they comply with the Natura designation.

GLAS participants that are approved for a Nitrates Derogation in any year of the GLAS contract will be ineligible for this action and there will be claw-backs of any Traditional Hay Meadow payments made to date.

This action is separated into whole parcel (WP) and part parcel (PP)

Traditional Hay Meadow WP
If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Farmland Habitat (Private Natura), Laying of Hedgerows, Low-Emission Slurry Spreading, Protection of Archaeological Monuments (Grassland), Protection of Watercourses from Bovines, Rare Breeds and Traditional Dry Stone Wall Maintenance.

Traditional Hay Meadow PP
If you select this action the only other actions you can select on this LPIS parcel are:
Catch Crops PP, Low-Emission Slurry Spreading, Low-Input Permanent Pasture PP, Rare Breeds and Wild Bird Cover PP.

Requirements

1.	Select a suitable Traditional Hay Meadow that must contain a minimum of three grass species such as cocksfoot, timothy, bent grasses, fescues, sweet vernal, Yorkshire fog, etc. (excluding Ryegrasses) that are widely dispersed throughout the LPIS parcel and where the entire area of the full parcel or part parcel (see 3 below) can be mowed with a tractor mower. Where Ryegrasses are present, they must not occupy more than 50% of the sward.
2.	The maximum area payable is 10ha of Traditional Hay Meadow and/or Low-Input Permanent Pasture.
3.	This action can be delivered on a full or split LPIS grassland parcel. Where the action is on a split parcel it must be digitised out and marked on the map submitted.
4.	Selected LPIS parcels must have been declared as forage on the SPS for the previous 8 years.
5.	Maximum chemical nitrogen application is 40 kg N per ha per annum.
6.	Grazing cannot take place from the 15th April until the meadow is mown annually which must be after the 1st July.
7.	Topping cannot take place from the 15th March until after the meadow is mown annually.
8.	Supplementary meal feeding may take place on these parcels provided meal troughs are moved to avoid poaching. Where the parcel is a Natura parcel, the GLAS advisor and participant should ensure that the supplementary feeding of meal does not impact negatively on the Natura site.
9.	Where present, rushes must be controlled either mechanically by weed wiping and/or by spot spraying. While weed wiping and/or spot spraying can take place between 15th

	March and when the meadow is mown annually, topping to control rushes cannot take place between these dates.

Recommendation: Where, because of bad weather or for other reasons, hay cannot be saved, silage can be made, provided that it is turned at least twice before collecting. This is important for the participant to ensure that the seeds are spread and that the meadow continues to have the required diversity of species throughout the 5 year contract.

Note: In GLAS there will be no cross compensation allowed between Low-Input Permanent Pasture and Traditional Hay Meadows. Therefore if a farmer commits to deliver 5ha of Low-Input Permanent Pasture and 5ha of Traditional Hay Meadow, they must deliver 5ha of each i.e. they cannot deliver 6ha of Low-Input Permanent Pasture and 4ha of Traditional Hay Meadow.

Traditional Orchards

Objective
Increase biodiversity and provide a habitat for wildlife on the farm.

Background
To ensure the survival of old fruit varieties and to enhance the visual and historical value of the landscape.

If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Coppicing of Hedgerows, Laying of Hedgerows, Planting New Hedgerow, Protection and Maintenance of Archaeological Monuments (tillage), Protection and Maintenance of Archaeological Monuments (grassland), Protection of Watercourses from Bovines, Rare Breeds, Riparian Margins and Traditional Dry Stone Wall Maintenance.

Requirements

1.	Plant a small orchard of 0.05Ha containing 10 fruit trees before the 31st March 2017.
2.	This action must be delivered on a full LPIS parcel. LPIS parcel selected must be marked on the map submitted.
3.	Trees must be spaced with a radius of 7m apart.
4.	Choose varieties from Appendix 5.
5.	Trees must be supported with a suitable stake and secured with a suitable tie.
6.	The orchard must be fenced off from livestock. However, grazing inside the fence with sheep is permitted provided that no damage is caused to the trees. If damage is being caused by rabbits/hares, measures to prevent further damage must be taken by the erection of a rabbit-proof fence.
7.	Failed or dead trees must be replaced during the next planting season.
8.	Pesticides are not permitted, except for spot treatment of noxious and invasive weeds.
9.	Grass and other competing vegetation must be controlled around the trees, until they have become established.

Recommendation
Trees must be on their own roots or grafted onto one of the following rootstocks :MM106 or MM111 . Where they are to be planted into good ground then trees grafted onto M26 rootstock may also be used.

Further information

Further information may be obtained from the following websites which is by no means an exhaustive list. The Department does not list approved suppliers of Traditional Orchards and the websites listed below are purely so participants can find information relating to old Irish varieties.

http://www.mrmiddleton.com/apple
http://www.irishseedsavers.ie
www.futureforests.ie

Wild Bird Cover

Objective
To sow a seed crop mix that provides a food source and winter cover for farmland birds and other fauna.

Background
Wild Bird Cover is a spring-sown crop that is left un-harvested over winter to provide food for farmland birds.

This Action is separated into whole parcel (WP) and part parcel (PP)

Wild Bird Cover WP
If you select this action the only other actions you can select on this LPIS parcel are:
Bat Boxes, Bird Boxes, Conservation of Solitary Bees (Boxes/Sand), Low-Emission Slurry Spreading and Rare Breeds

Wild Bird Cover PP
If you select this action the only other actions you can select on this LPIS parcel are:
Catch Crops PP, Environmental Management of Fallow Land PP, Low-Emission Slurry Spreading, Low-Input Permanent Pasture PP, Rare Breeds and Traditional Hay Meadow PP

Requirements

1.	Select a suitable parcel that is capable of establishing a wild bird cover crop by sowing a suitable seed mix as set out below, initially by 31st May 2016.
2.	This action can be delivered on a full or split LPIS parcel. Where the action is on a split parcel it must be digitised out and marked on the map submitted with the GLAS application. The Wild Bird Cover must remain in the same place for the duration of the GLAS contract.
3.	The minimum area to be delivered is 1ha where it is taken as a priority action and 0.25ha where it is taken as a general action and maximum area for payment is 3ha. The minimum parcel size is 0.25ha.
4.	Crop must remain in situ until 15th March the following year. In the year in which parcels have been fully replanted, livestock may enter the parcel from 15th March to planting time, to aid in the decomposition of the trash.
5.	The 1 year mix must contain a cereal (either oats or triticale) and at least one species from the following: oilseed rape, linseed and mustard. The two year mix must contain a cereal (either oats or triticale) and kale. Where the 2 year mix is sown, half the plot is sown with cereal and half the plot is sown with kale. Do not sow it in alternative strips, as the cereal must be re-sown in year 2 while the kale will be remaining in situ.
6.	Pre-sowing weed control can be used. Pesticides cannot be applied post sowing. However spot treatment with herbicide for noxious weeds and invasive species is permitted.
7.	Parcel(s) must be fenced off and stock proof from the time the crop is sown, until the 15th March of the following year.
8.	Fertiliser can be applied at a maximum of half rate for a cereal crop prescribed in Statutory Instrument 31 of 2014.
9.	No harvesting of the crop can take place.

Recommendations

Drilling is the preferred sowing method; however broadcasting of the seed is permitted. If broadcasting, increase the seed rates by between one third (for smaller seeds) and a half (for larger seeds), and roll immediately post sowing.

Consideration should be given to growing the crop adjacent to cover (e.g. beside hedgerows or near woodland or scrub). This may also be grown along a stream or river where it can have the dual benefit of acting as a buffer margin.

Examples

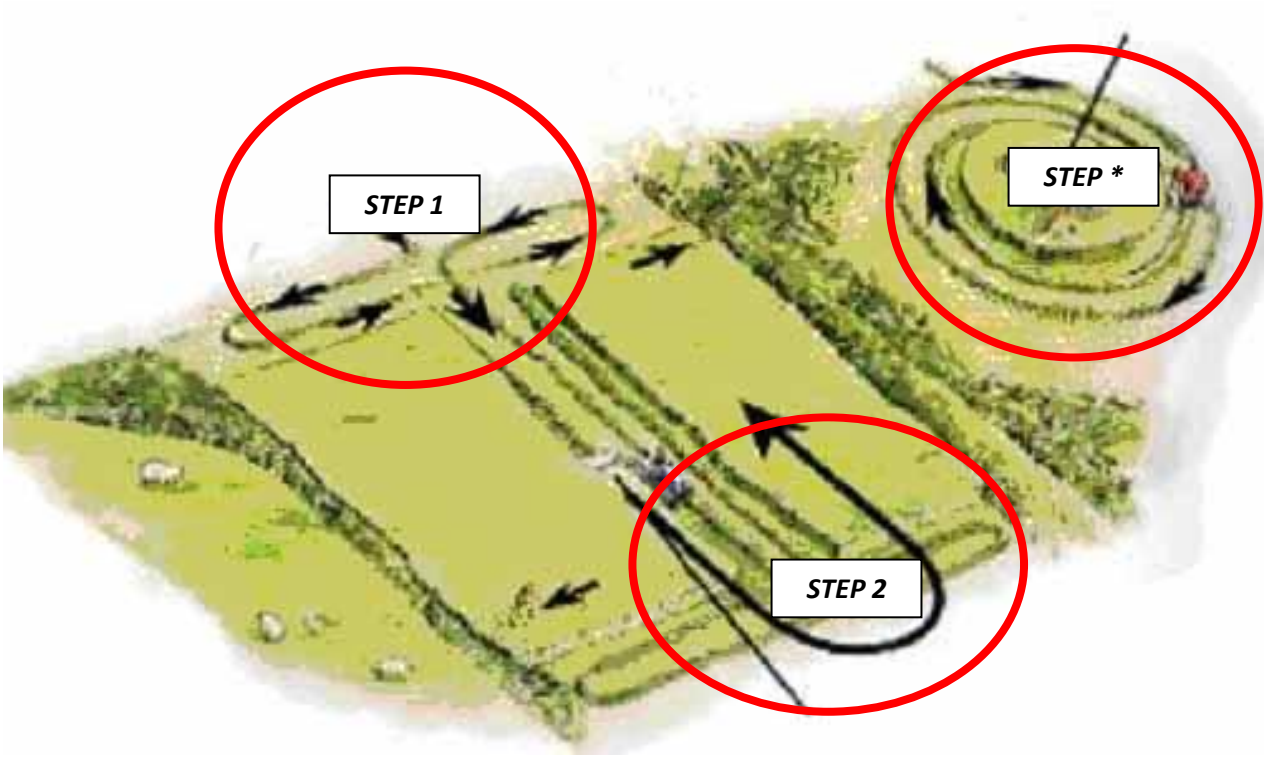
Example 1: One year seed mixes that can be planted annually – can be mixed together.

Seed mix	Seeding rate where drilled
Oats and Linseed	75 kg/ ha of oats and 15 kg/ha of linseed
Oats and Mustard	75 kg/ha of oats and 10 kg/ha of mustard
Triticale and Linseed	75 kg/ha of triticale and 15 kg/ha of linseed
Triticale and Oilseed Rape	75 kg/ha of triticale and 3 kg/ha of oilseed rape

Example 2: Two Year see mixes must be planted separately beside each other in the one plot.

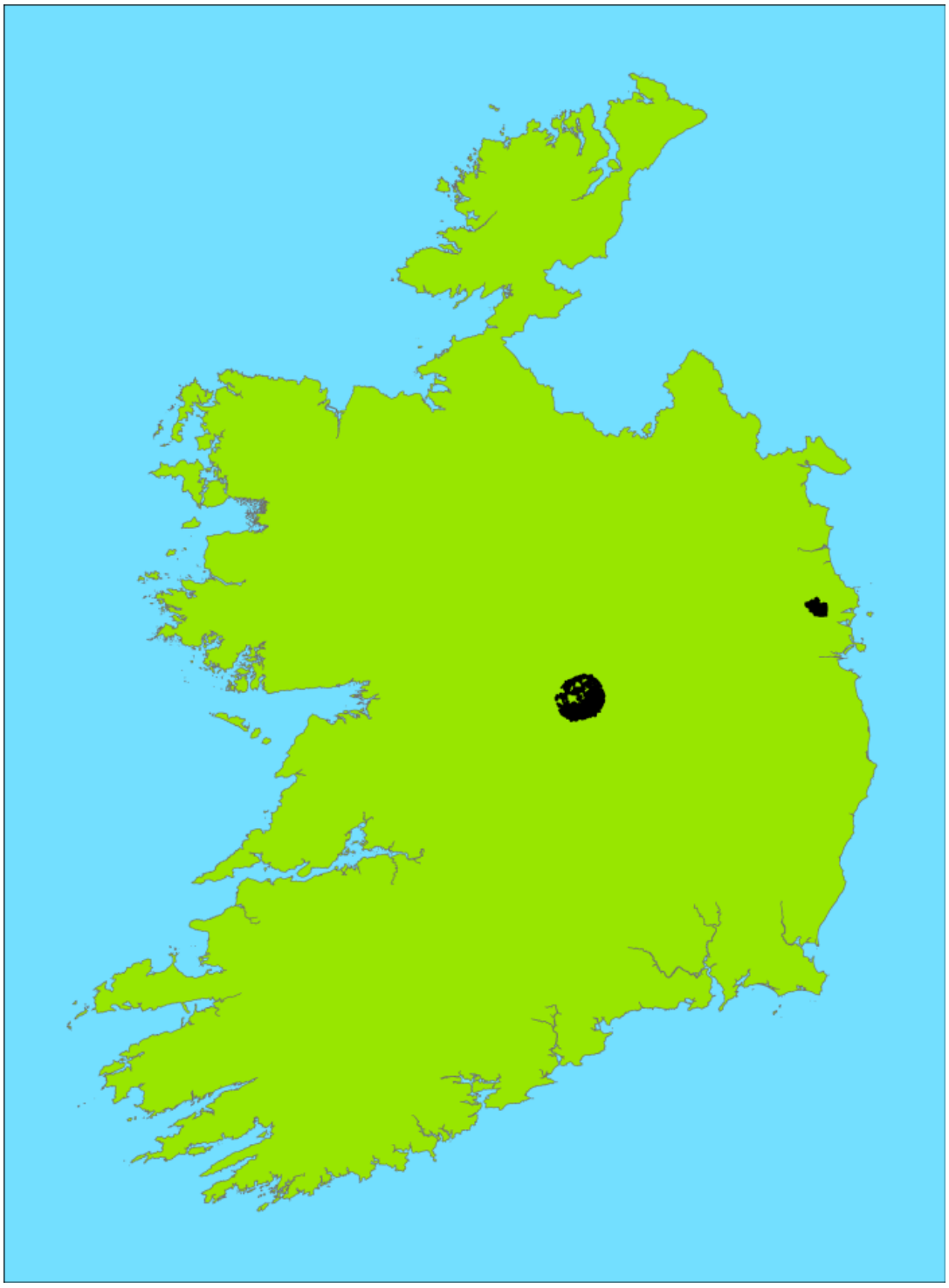
Year	Seed mix	Seeding rate where drilled
Year 1	Establish half the plot with cereal crop and half with kale	75 kg/ ha of oats/triticale 3 kg/ha of kale
Year 2	Kale remains in situ and re-establish cereal crop in half of plot	75 kg/ha of oats/triticale
Year 3	Re-establish half of plot as kale and half of plot as cereal	75 kg/ha of oats/triticale 3 kg/ha of kale
Year 4	Kale remains in situ in half the plot and re-establish half of plot with cereal crop	75 kg/ha of oats/triticale
Year 5	Re-establish half as kale and half as cereal	75 kg/ha of oats/triticale 3kg/ha of kale

Appendix 1a: 'Centre Out' mowing method



STEP 1: *Mow the two ends of the field parcel.*
STEP 2*: Mow the remainder of the field from the centre out in a slow (low gear) manner.*
STEP *: *If present, mow towards rocky knoll to leave a sizeable refuge.*

Appendix 1b: Grey Partridge eligible land areas



Appendix 1c: Twite eligible land areas.

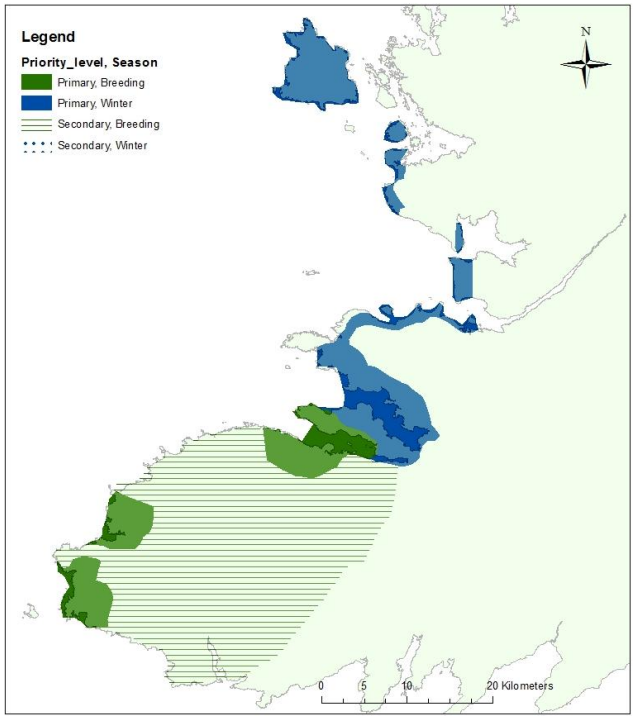


Figure 1: Primary and secondary target areas for Twite birds County Donegal

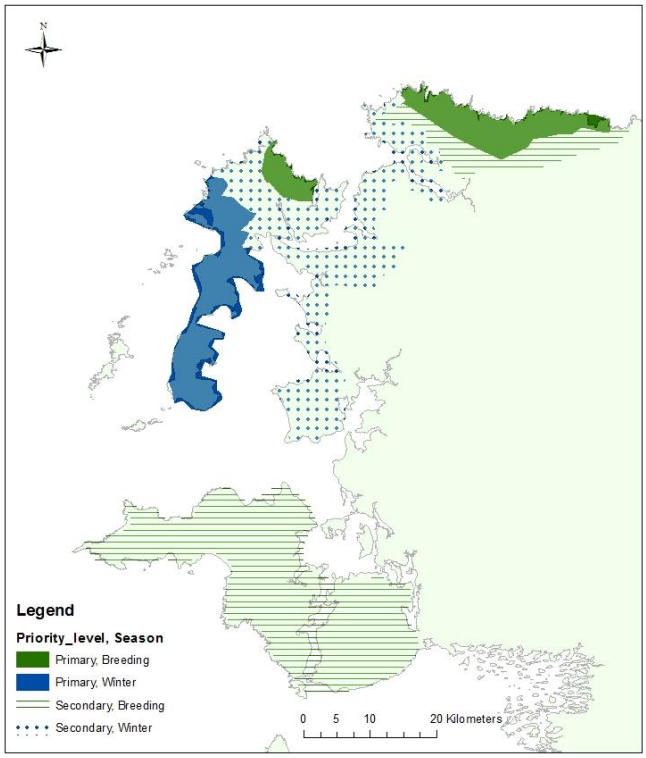


Figure 2: Primary and secondary target areas for Twite birds County Mayo.

Appendix 2: Interaction between Organic Farming Scheme (OFS) and GLAS

GLAS Action	Organic Farming Scheme
Arable Grass Margins	Allowed along with OFS payment
Bat Nest Boxes	Allowed along with OFS payment
Bird Nest Boxes	Allowed along with OFS payment
Conservation of Solitary Bees (Boxes)	Allowed along with OFS payment
Conservation of Solitary Bees (Sand)	Allowed along with OFS payment
Breeding Waders	Allowed but only where OFS payment forgone for that area
Chough	Allowed but only where OFS payment forgone for that area
Corncrake	Allowed but only where OFS payment forgone for that area
Geese and Swans	Allowed but only where OFS payment forgone for that area
Grey Partridge	Allowed but only where OFS payment forgone for the LPIS Parcel within which the Grey Partridge margin is located
Hen Harrier	Allowed but only where OFS payment forgone for that area
Twite A	Allowed but only where OFS payment forgone for that area
Twite C	Allowed but only where OFS payment forgone for that area
Catch Crops	Allowed along with OFS payment
Commonage Management Plan	Allowed along with OFS payment as no payment for commonage in OFS
Coppicing of Hedgerows	Allowed along with OFS payment
Environmental Management of Fallow Land	Allowed but only where OFS payment forgone for the LPIS Parcel
Farmland Habitat (Private Natura)	Allowed along with OFS payment
Laying of Hedgerows	Allowed along with OFS payment
Low-Emission Slurry Spreading	Allowed along with OFS payment
Low-Input Permanent Pasture	Allowed, but only where OFS payment forgone for that area
Minimum Tillage	Allowed along with OFS payment
Planting a Grove of Native Trees	Allowed, but only where OFS payment forgone for that area
Planting New Hedgerow	Allowed along with OFS payment
Protection and Maintenance of Archaeological Monuments (Tillage Parcels)	Allowed but only where OFS payment is forgone for the LPIS Parcel within which the tillage monument is located
Protection and Maintenance of Archaeological Monuments (Grassland Parcels)	Allowed along with OFS payment
Protection of Watercourses from Bovines	Allowed along with OFS payment
Rare Breeds	Allowed along with OFS payment
Riparian Margins	Allowed but only where OFS payment is forgone for the LPIS Parcel within which the riparian margin is located
Traditional Dry Stone Wall Maintenance	Allowed along with OFS payment
Traditional Hay Meadow	Allowed, but only where OFS payment forgone for that area
Traditional Orchards	Allowed along with OFS payment
Wild Bird Cover	Allowed, but only where OFS payment forgone for that area

Appendix 3: Approved Native Hedgerow Species

Choice of hedgerow species that MUST be planted in the Planting New Hedgerow Action, Coppicing of Hedgerow action and/or Laying of Hedgerow Action.

Species	Characteristics
Blackthorn *Prunus spinosa*	Grows well on heavy and sandy soils. Salt tolerant, suitable for coastal and exposed situations. Quick growing shrub, forming an impenetrable stock-proof barrier when well established. Throws out root suckers requiring regular management. Excellent plant for gapping hedgerows. Stands up well to cutting. Can be propagated from rooted suckers. Tends to become bare at the base.
Holly *Ilex aquifolium*	Grow on clay soils, sands and gravel. Very tolerant of shade. Will not grow on wet sites. Both male and female plants are required to produce berries. Slow growing evergreen with high amenity value. Forming a tough stock-proof barrier. Good plant for gapping. Susceptible to frost damage.
Whitethorn (Hawthorn) Crataegus monogyna	Tolerant of most soils except where very wet. Does not thrive at high elevations. Susceptible to Fire Blight disease; should not be planted near tree\shrub nurseries or commercial orchards ubiquitous native hedge plant tough, hardy and fast growing. Withstands hard cutting and lying. Displays great variation in flower hue at blossom time. An important source of pollen and nectar for invertebrates; major bee forage plant.

Appendix 4: Native Irish trees for Planting a Grove of Native Trees

Species	Characteristics	Remarks
Alder (*Alnus glutinosa*)	Suitable for wet sites. Fast growing nitrogen-fixing tree. Suitable broadleaf for even the wettest sites.	Minor forest species. Common Alder is a native tree. Coppices freely and can be used in mixtures on less fertile sites. Valuable shelter tree.
Silver birch (*Betula pendula*)**, Downy birch (***Betula pubescens*)	Pioneer species suited to very acid soils and peats. Fast growing, hardy species, withstands exposure and frost well. Useful as a nurse crop in mixtures but must be kept under control or it will smother a slower growing tree species.	Very attractive small tree. Minor forest species. Native tree. Young trees coppice freely. May be used as a soil improver. Can be mixed into shelterbelts.
Sessile oak (*Quercus petraea*)*,* **Pedunculate oak** (*Quercus robur*)	Well-aerated deep fertile loams. Will grow well on heavier soils. Slow growing, long lived tree.	Major forest species. One of our few native broadleaved trees. Very high amenity and wildlife value.
Mountain ash (*Sorbus aucuparia*)	Suitable for lowland and hill acidic sites. Will tolerate even alkaline sites. Hardy tree suitable for exposed sites. Widely used amenity tree.	Minor forest species. Native tree. Offers good support for wildlife.
Whitebeam (*Sorbus aria*)	Most fertile mineral soils. Attractive amenity tree also suitable for shelter.	Minor forest species. Native tree. Tolerant of exposed and coastal sites.
Wild Cherry (*Prunus avium*)	Fertile deep well-drained mineral soils. Preference for slightly acid soils but will do well on deep loams over limestone. Fast growing, light demanding, requiring considerable space. The only commercial broadleaved tree with attractive blossoms.	Major forest species. Native tree. May suffer from bacterial canker and aphid attack.
Goat willow (*Salix caprea*), **Rusty willow** (*Salix cinerea* subspp. *oleifolia*), **Eared willow** (*Salix aurita*) and **White willow** (*Salix alba*)	Useful species for wet sites and stream sides. Fast growing useful for conservation and amenity but rarely for timber production. Willow can be used in a variety of ways as a shelterbelt system.	Minor forest species. Native tree. Attractive tree when grown as a standard tree.
Hazel (Corylus avellana)	Hazel can grow as a small tree with a single stem but is more frequently found as a multi-stemmed shrub. It has high amenity and wildlife value.	Hazel is very suitable to coppice and lay.
Scots pine (Pinus sylvestris)	Scots pine is suited to light soils with fairly free drainage or milled peat cutaway bogs. It is a hardy species which is tolerant of frosts. It grows vigorously in its early years and can be used for amenity or timber production.	Forest species. Native tree. Grows well in a mixture with other species particularly oak and birch.

Appendix 5: Definitive list of Native tree varieties suitable for Traditional Orchard

Aherne Beauty	Eight Square	Martin's Seedling
Appletown Wonder	Farrell	Mrs Perry
April Queen	Finola Lee	Munster Tulip
Ard Cairn Russet	Frank's Seedling	Pêche Melba
Ballinora Pippin	Gibbon's Russet	Rawley's Seedling
Ballyfatten	Gibby's Apple	Red Brandy
Ballyvaughan Seedling	Glenstal Cooker	Reid's Seedling
Barnhill Pippin	Golden Royal	Richardson
Beauty of Ballintaylor	Greasy Pippin	Ross Nonpareil
Bloody Butcher	Green Chisel	Sam Young
Brown Crofton	Honeyball	Scarlet Crofton
Buttermilk Russet	Irish Molly	Sheep's Snout
Cabbage Stalk	Irish Peach	Sovereign
Cavan Rose	Irish Pitcher	Strippy
Cavan Strawberry	Keegan's Crab	Thompson's Apple
Cavan Sugarcane	Kemp	Turkey Willouby Uncle John's Cooker
Cavan wine	Kerry Pippin	Valentine
Clearheart	Kilkenny Pearmain	White Crofton
Councillor	Kiltoghert Blossom	White Moss
Davy Apple	Lady's Finger	White Russet
Dick Davies	Leitrim Red	Widow's Friend
Dockney	Leixlip	Yellow Clare
Ecklinville Seedling Uncle John's cooker	Lough Tree	Yellow Pitcher

Appendix 6: Example Provenance Declaration Form for Planting of a Grove of Native Trees

PROVENANCE DECLARATION FORM (For use with Forest Service Grant Schemes)

PART A Supplier's Document (To be completed by the Nursery/Supplier -Issued in accordance with Council Directive 1999/105/EC)

Supplier's Official Registration Number: ☐ **Supplier's Document Number:** ☐

Species: Common Name: _____ Botanical Name: _____

Master Certificate of Provenance Number: _____ **Country of Issue**: _____

Note: The Master Certificate of Provenance Number refers to the number of the original seed Certificate of Provenance issued by a designated National Regulatory Authority.

Provenance Details: Country: _____ Provenance: _____

Origin: Indigenous ☐ Unknown ☐ If Non-Indigenous: Country: _____Region:_____

Category: Source Identified ☐ Selected ☐ Qualified/ Untested Seed Orchard ☐ Tested ☐ Less stringent requirements/Derogation ☐

Type of Basic Material: Seed source ☐ Stand ☐ Seed Orchard ☐ Parents of families ☐ Clone ☐ Clonal mixture ☐

National Register Reference or identity code for region of provenance: _____

Purpose: Multifunctional forestry ☐ Other specific purposes (please indicate) ☐_____

Length of time in nursery and production type: _____

Unique identity/batch no. assigned by the Supplier: _____ Quantity dispatched: _____ Date of Dispatch: _____

Name and Address of Purchaser: _____

_____

Delivery Address (if different): _____

Plant Passport Details (where applicable): EU Plant Passport IRL/DAF /Registration Number: _____ PZ Code: _____

Replacement Passport Details: Country: _____ Reg. No: _____ Batch No: _____

It is hereby declared that all of the above details are correct, that the origin/provenance complies with the accepted origin/provenance list in the Forest Service *Forestry Schemes Manual* ☐ and/or the *Native Woodland Scheme Manual* ☐ and that where applicable the original Supplier's document is available for inspection.

Name and address of Nursery/Supplier: _____

_____

Authorised Person: _____

Authorised Person's signature: _____

Date: _____

Nursery/Supplier Stamp

PART B to be completed by the Contractor/Applicant

Contract No: Applicant's Name: _____

PART A is an Original: ☐ PART A is a Photocopy: ☐

This Provenance Declaration Form accounts for:

All of the trees planted of the above species on this contract: ☐ **Part** of the quantity planted of the above species on this contract: ☐

If **Part** indicates the numbers planted and complete a separate Provenance Declaration Form for the remainder: ☐

If **Part** state the Plot Number(s) applicable to this Provenance Declaration Form: ☐

It is hereby declared that all of the above provenance details for the above contract are correct and that where the Nursery/Supplier Declaration (Part A) is a copy the original is available for inspection.

Applicant's signature: _____

OR Name of Contractor: _____

Contractor's Authorised Person: _____

Authorised Person's signature: _____

Date: _____

Contractor Stamp (where applicable)

Version: 21/2/03

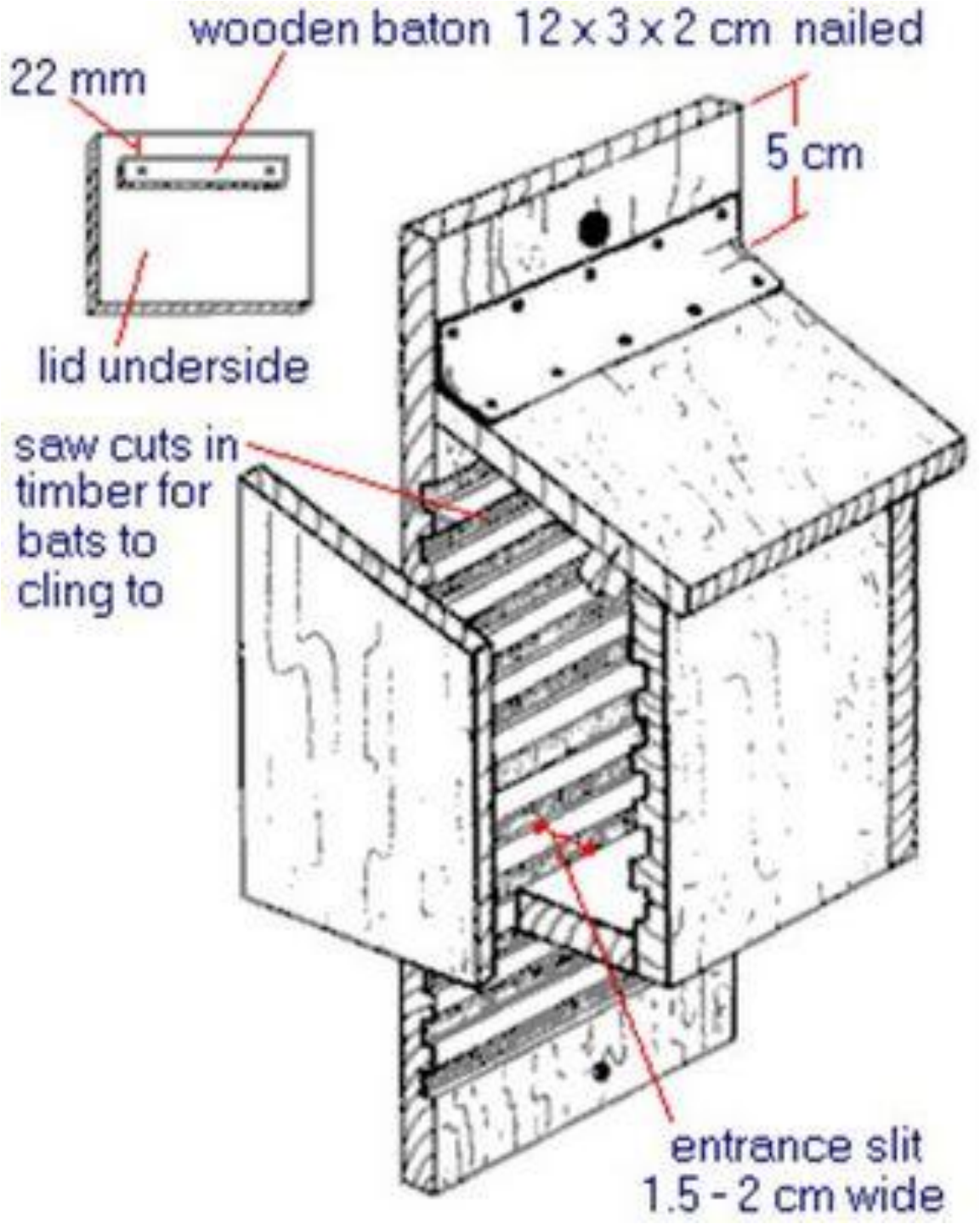
Appendix 7: Campaign for Responsible Rodenticide Use Code (CRRU)

CRRU Code requirements

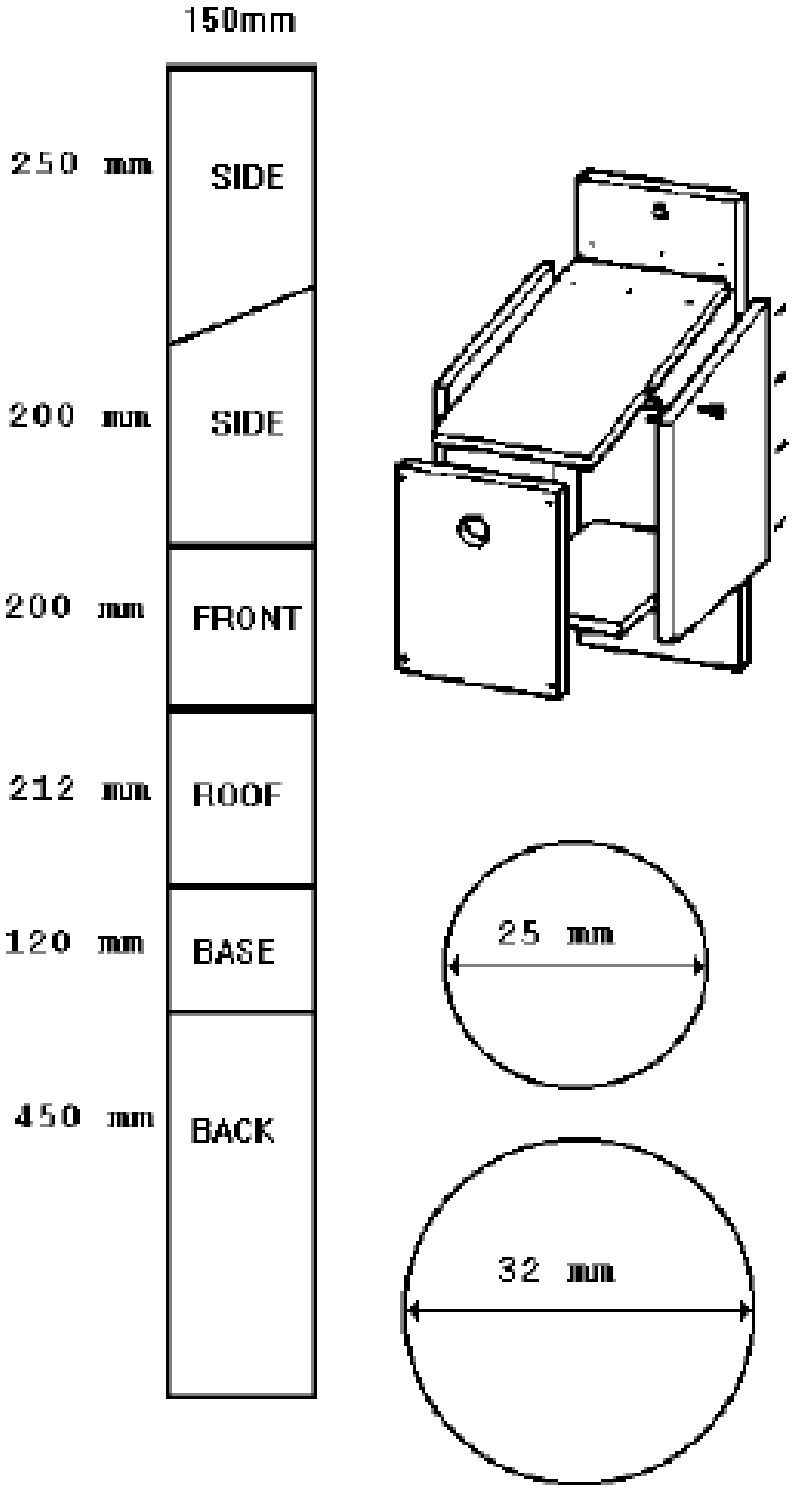
1. Always have a planned approach.
2. Always record quantity of bait used and where it is placed.
3. Always use enough baiting points.
4. Always collect and dispose of rodent bodies.
5. Never leave bait exposed to non-target animals and birds.
6. Never fail to inspect bait regularly.
7. Never leave bait down at the end of the treatment.

For further information
(http://www.thinkwildlife.org/crru-code/)

Appendix 8: Example of Bat box dimensions



Appendix 9: Example of Bird box dimensions



Small bird nest box

Appendix 10: Example of Bee box dimensions

Dimensions: Holes in the wood should be between ⅜ inch to ¼ inch. The overall box size should be no less than 30cm high, 30cm wide and 20cm deep with an overhang at the front to keep rain out.

Appendix 11: **Example method of laying a hedgerow**

Laying of Hedgerows

Hedgerow laying involves the part cutting through of selected stems, bending them over at an angle of 70-80 degrees and securing the branches and stems to stakes driven into the hedgerow bank. There are many variations of hedgerow laying.

1. A downward angled cut is made (with a billhook, axe or chainsaw) approx ¾ through the stem (experience will tell you how far to go). The stem is then laid over.
2. The heel or stub is cut off at a sloping angle near the ground to encourage re-growth from the ground but also to prevent injury to livestock and allow water run-off.
3. A long, thin tongue or hinge allows the laid stem to be twisted and positioned to best advantage.
4. Laid stems are secured to prevent them being damaged by livestock rubbing or pushing against the hedge and to prevent damage from strong winds. Cut stems are secured to posts driven into the hedge bank interwoven with suitable rods (hazel/willow) to give stability.

Appendix 12: Rare Breed Societies

Connemara Pony Breeders Society
Secretary,
CPBS Offices,
The Showgrounds,
Clifden,
Co. Galway
Tel: 095-21863
email: enquiries@cpbs.ie
web: www.cpbs.ie

The Kerry Bog Pony Co-Operative Society
Mary McGrath (Secretary)
The Kerry Bog Pony Co-Operative Society
Barrabehy
Mooncoin
Co. Kilkenny
email: info@kerrybogpony.ie
web: www.kerrybogpony.ie

The Irish Horse Board
(Irish Draught Horse Breed only)
Beech House
Millennium Park
Osberstown
Naas
Co. Kildare
email: ihb@ihb.ie
web: www.irishhorseboard.com

UK Dexter Cattle Society
Mrs. Sue Archer (Secretary)
Dexter Cattle Society,
Charolais Pavilion,
Avenue M,
Stoneleigh Park,
Warwickshire.
Tel: 02476 692300
email: secretary@dextercattle.co.uk
web: www.dextercattle.co.uk

Galway Sheep Breeders
Mr. Tom Murphy (Secretary)
Shralea,
Creagh,
Ballinasloe
Co. Galway.
Tel: 09096 44233
email: info@galwaysheep.ie
web: www.galwaysheep.ie

Kerry Cattle Society Ltd
G.R. Hilliard (Secretary)
Cahernane,
Killarney,
Co. Kerry.
Tel: 064 6631840
email: secretary@kerrycattle.ie
web: www.kerrycattle.ie

Irish Moiled Cattle Society
Ms. Gillian Steele (Secretary)
Irish Moiled Cattle Society,
'Shamrock Vale'
42 Belfast Road
Glenavy
Crumlin
Co. Antrim.
Tel: 07842 185008
Email: secretary@irishmoiledcattlesociety.com
web: www.irishmoiledcattlesociety.com

Appendix 13: Activities Requiring Consent (ARC) List

Code	Activity description
ARC-01	Reclamation, including infilling.
ARC-02	Use of excavators, rock breakers, bulldozers, back hoes or use of any other hydraulically-powered excavation equipment.
ARC-03	Blasting, drilling, dredging or otherwise removing or disturbing rock, minerals, mud, sand, gravel or other sediment.
ARC-04	All activities relating to turf cutting and/or peat extraction.
ARC-05	Cutting, uprooting or otherwise removing plants. [Consent is not required for harvesting of cultivated crops, or for grazing or mowing.]
ARC-06	Introduction, or re-introduction, of plants or animals not found in the area. [Consent is not required for the planting of crops on established reseeded grassland or cultivated land.]
ARC-07	Removal of geological specimens including rock samples, minerals or fossils.
ARC-08	Undertaking scientific research involving the collection and removal of biological material.
ARC-09	Construction or alteration of tracks, paths, roads, bridges, culverts or access routes.
ARC-10	Construction, removal or alteration of fences, stone walls, hedgerows, banks or any field boundary other than temporary electric fencing. [Consent is not required for normal maintenance.]
ARC-11	Digging, ploughing, harrowing or otherwise disturbing soil or substrate. [Consent is not required for these activities on established reseeded grassland or cultivated land provided it is greater than 50m from a river, stream, floodplain, wetland, lake, turlough or pond.]
ARC-12	Applying inorganic or organic fertiliser, including slurry and farmyard manure. [Consent is not required for these activities on established reseeded grassland or cultivated land provided it is greater than 20m from a river, stream or floodplain; or greater than 50m from a wetland, lake, turlough or pond.]
ARC-13	Applying lime. [Consent is not required for this activity on established reseeded grassland or cultivated land provided it is greater than 20m from a river, stream or floodplain; or greater than 50m from a wetland, lake, turlough or pond.]
ARC-14	Storage, burial, disposal or recovery of any materials. [Consent is not required for these activities on established reseeded grassland or cultivated land provided it is greater than 20m from a river, stream or floodplain; or greater than 50m from a wetland, lake, turlough or pond.]
ARC-15	Burning, topping, clearing scrub or rough vegetation or reseeding. [Consent is not required for these activities on established reseeded grassland or cultivated land provided it is greater than 20m from a river, stream or floodplain; or greater than 50m from a wetland, lake, turlough or pond.]
ARC-16	Modification of caves and/or their entrances.
ARC-17	Agricultural improvement of heath or bog.
ARC-18	Application of pesticides, including herbicides. [Consent is not required for these activities on established reseeded grassland or cultivated land provided it is greater than 20m from a river, stream or floodplain or greater than 50m from a wetland, lake, turlough or pond.]
ARC-19	Supplementary feeding of livestock. [Consent is not required for this activity on established reseeded grassland or cultivated land provided it is greater than 20m from a river or stream; or greater than 50m from a wetland, lake, turlough or pond.]
ARC-20	Significant changes in livestock density (including introduction of grazing), changes in livestock type or grazing season, other than on established reseeded grassland. [Consent is not required for changes of less that 20% in livestock density unless notice has been given that a lower percentage is applicable to a particular site.]
ARC-21	Grazing of livestock between 1st April and 31st October on traditional winterages.
ARC-22	Changing of agricultural use from hay meadow to any other use.
ARC-23	Mowing of grass crops. [Consent is not required unless notice has been given that mowing on specified lands is likely to interfere with the breeding and reproduction of corncrakes during the period specified in the said notice.]
ARC-24	Works on, or alterations to, the banks, bed or flow of a drain, watercourse or water body.
ARC-25	Drainage works including digging, deepening, widening or blocking a drain, watercourse or water body.
ARC-26	Entry of livestock or machinery into stretches of river containing, or upstream from, freshwater pearl mussel.
ARC-27	Water abstraction, sinking of boreholes and wells.
ARC-28	Felling of trees or removing timber, including dead wood.
ARC-29	Planting of trees or multi-annual bio-energy crops.
ARC-30	Any activity intended to disturb birds, including by mechanical, air, gas, wind powered or audible means.

ARC-31	Developing or consenting to the development or operation of commercial recreational/visitor facilities or activities.
ARC-32	Off-road recreational use of mechanically propelled vehicles.
ARC-33	Using or permitting the use of land for car parking.
ARC-34	Alteration, renovation or removal of buildings, ruins or other structures.
ARC-35	Alterations or repair of sea defences or coast protection works, including cliff or landslip drainage or stabilisation measures.
ARC-36	Harvesting marine invertebrate species in intertidal areas.
ARC-37	Driving mechanically propelled vehicles in intertidal areas, except over prescribed access routes.
ARC-38	Undertaking active acoustic surveys in the marine environment.
other	Predatory control.

Appendix 15: Information note for certain Natura site types.

The notes below are provided for information and guidance purposes only.

Conditions for the Blanket Bogs, Heaths and Upland Grasslands

General Provisions

The primary recommendation is to avoid farming practices that cause environmental damage and all the following recommendations are designed to meet that objective. If a practice is environmentally damaging it must be stopped or modified, but the following are general guidelines and may be superseded by specific recommendations for individual farms.

Detailed Conditions for Blanket Bogs, Heaths and Upland Grasslands

Stocking Density

In all cases an environmentally sustainable plan must be prepared and adhered to for the total area of the farm. Sustainable optimum stocking rates must be set down by the GLAS advisor following careful assessment of the environmental conservation needs of the lands.

Where the stocking levels set down by the GLAS advisor require a reduction in stock this must be achieved within one year of the commencement of the plan. There can be no increase in stocking levels, no introduction of stock to new areas and no changes in stock type during the period of the plan without the prior approval of NPWS. The maximum number of sheep that may be kept on the farm as a whole must be set down in the plan. The following parametres apply:

- Where there is no damage the current stocking levels are acceptable;
- If the level of damage is moderate a stocking reduction must be prescribed by the GLAS advisor at a level related to the damage and sufficient for the vegetation to recover;
- If the level of damage is severe, a stocking reduction of between 70% and 100% of ewe numbers on the damaged area must be prescribed for a specified period.

At the review of the plan, the conservation status of the areas will be reviewed. A change in the stocking levels (increase or decrease) may be appropriate depending on progress.

Stocking levels apply to Scottish Blackface sheep or similar medium sized sheep breeds. Stocking levels for cattle or other stock should be at livestock unit applicable rates taking account of the conversion rates for the various stock types. The stocking levels recommended in this document are maximum sustainable rates for year round grazing. If shorter periods of grazing are used the number of animals may be increased, though not necessarily pro rata.

Supplementary Feeding

Supplementary feeding is permitted only on areas where it is currently practised. Locations of feeding points must be specified. To reduce heavy grazing, trampling, poaching and erosion problems, 'feeding points' should be moved every three weeks and sited on ground with least habitat and wildlife value, preferably on grassland well away from stands of heather. Feeding on steep slopes and on peaty soils should be avoided where possible. The total amount of feed used must not be increased.

Use of Fertilisers and Herbicides

Neither organic nor inorganic fertilisers nor lime can be applied on bogs, heaths or upland grasslands where they have not been used before. Fertilisers must not be used as a means of regenerating eroded areas. In the case of upland grasslands fertilisers can only be applied on the basis of the results of a soil test. Where fertilisers are being applied, the initial soil sampling should be relatively

intensive with at least one sample per 2–4ha. Target soil phosphate levels must not exceed the Index 2 level set out in this specification.

Spraying or broadcast application of herbicides must be avoided. Spot application and wipe-on treatments to eradicate docks, thistles, ragwort and similar noxious weeds may be used. Rhododendron may be removed by cutting and herbicide treatment. Bracken control may be by rolling, cutting and/or by controlled cattle trampling in early summer. In exceptional circumstances control of bracken by herbicides may be permitted.

Water Pollution
The greatest care should be taken to observe the statutory requirements on water pollution. The hydrology of bog land areas is characterised by extremely nutrient poor surface waters, which contain flora and fauna adapted to these conditions. These species would be adversely affected by nutrient enrichment. New sheep dip sites must be listed and located away from streams and flushes to reduce the possibility of water pollution and damage to flora and fauna.

Restricted and Prohibited Practices
The following practices must not be carried out on Blanket Bogs, Heaths or Upland Grasslands:

- The areas must not be drained, ploughed, cultivated or reseeded.
- There must be no infilling or rock removal.
- Turf cutting on unexploited bogs is not permitted. Turf cutting for domestic use is permitted on existing banks.
- Planting of trees or other crops is not permitted.
- No new tracks or paths can be created.
- Burning is only allowed as a planned management practice.
- Gorse may be controlled by cutting, spot spraying or exceptionally by burning outside of the bird nesting season (1st March to 31st August).

<u>Conditions for Sand Dune and Machair Areas</u>
The primary recommendation is to avoid farming practices that cause environmental damage and all the following recommendations are designed to meet that objective. If a practice is environmentally damaging it must be stopped or modified, but the following are general guidelines and may be superseded by specific recommendations for individual farms.

Detailed Conditions for Sand Dunes and Machairs
Description
Sand Dunes and Machairs are coastal habitats consisting of hills and hollows in which unique communities of plants and animals are found in response to the very demanding nature of the dry, windy and salty environment.

Machairs are flat, level plains over lime-rich sands which have evolved in response to a unique interruption between wind, high rainfall and historical land use. They are found only in western Ireland and Scotland.

Grazing Regime
It should be noted that on sand dunes and Machairs, the objective is to maintain extensive agricultural practices, and to prevent a further increase in stock numbers. Cattle stock must be kept at the level the land can support - see also the section on Supplementary Feeding.

Cattle grazing should continue in line with traditional practices. The land should normally be grazed only in winter. However, in areas where Summer grazing has traditionally (i.e. over the previous 10 years) been practised, this can continue, provided, of course, that stock levels at all times do not exceed what the land can bear on a sustainable basis. Grazing on young and fore-dune areas should be avoided. Where conditions warrant, grazing levels must not exceed

One Livestock Unit (LU) per hectare on a year round average and must never exceed two LU at any one time. This change would enable two LUs to be overwintered on the sand dune/Machair provided it is deemed to be sustainable by the GLAS advisor.

The introduction of sheep into areas where they have not been traditionally grazed should be avoided, but areas which have kept sheep traditionally can retain them, though perhaps at a lower level.

Sustainable stocking levels
The GLAS advisor should set stocking levels for each farm in the farm plan. The levels should be set below the level which causes eutrophication, overgrazing, or erosion, but still high enough to control the encroachment of coarse vegetation and scrub. Where the stock level set by the GLAS advisor requires a reduction, this must be achieved within 12 months of the start of the plan. Where the stock level is to increase, this can be spread over the period of the plan, as specified by the GLAS advisor. Where a conservation plan has been prepared for the SAC in question, this should be used to assist in determining where damage has occurred or is occurring, where damage is moderate, and where damage has not occurred.

Official conservation plans, when available, can be obtained from the local office of the NPWS.

Supplementary feeding
The introduction of supplementary feeding can bring additional nutrients into sand dune and Machair areas, and thus bring about a very fundamental change in the vegetation of these areas. The use of silage and other feed can facilitate excessive stocking levels and may lead to pollution of groundwater. Consequently, the use of any supplementary feeds in areas where it has not been customary over the last ten years may be allowed only in consultation with NPWS.

Round-baled silage can be stored in these areas. Loose silage can only be stored where an approved effluent collection system is in place and the effluent is removed from the Machair/sand dune.

No supplementary feeding can take place on young and fore-dune areas.

In Machair and grey dune areas where supplementary feed has been used over the last 10 years it may be continued, provided that

- The number of LUs fed does not increase
- The species of stock fed does not change
- The total amount of feed equivalent does not increase
- The amount of feed does not exceed 3.5 tonnes of silage or 0.75 tonnes of hay per LU
- No meals and concentrates are fed.

However, in exceptional circumstances, such as in unusually severe weather conditions (i.e., when there are heavy snowfalls or floods), and with the agreement of NPWS, feeding will be permitted. Weanling cattle may be fed small quantities of concentrates.

Cultivation, reseeding and pesticides
Ploughing, harrowing or any other form of cultivation must be avoided since this will destabilise the dune structure. Small traditional tillage plots on Machairs may be retained. The bringing in of any seeds to these areas will disturb the vegetative balance on which the dune depends and must be avoided. The feeding of hay should only be from round feeders.

The fixed dune parts of sand dunes are essentially areas with low levels of plant nutrients in the soil and this has contributed to the development of their distinctive flora. These are also areas most used for grazing. However, the spreading of organic (slurry, FYM), or inorganic fertilisers must not take place, as the flora in these areas would be damaged.

On Machairs, where fertiliser has not been applied in the past, none can be applied now. However, where low levels of phosphorus have traditionally been applied on Machairs, this may continue, provided that the soils Phosphorus levels do not increase above their present levels or in any event do not exceed Soil Index 2.

Pesticides and Herbicides
All spraying or broadcast application of herbicides must be avoided, but spot application and wipe on treatment to eradicate docks, thistles and similar noxious weeds can be used.

Animal Treatments
Worm doses may be used normally, but animals, which have been given pesticides, the residues of which persist in the dung must be kept off the dune for at least a week after treatment.

Dumping and infilling
The dumping of domestic or industrial refuse, farm wastes, rubble, rock, or any similar materials which could disturb the natural environment by bringing in unsuitable nutrients or unsuitable soils and seeds must be avoided.

<u>Farming Conditions for the Conservation of River SACs</u>
Fertiliser in River SACs
In river SACs, no chemical fertiliser should be applied within 2m of any watercourse.

In river SACs, the recommended buffer strip when spreading organic manures is up to 10m from streams and drains and up to 20m from main river channels. Where SAC boundaries have been reduced to 2.5m, the relevant buffer is that under Cross Compliance.

Notifiable Actions
Current farming activities can continue without notification unless they involve any of the following, which, as they may impact upon habitats, are notifiable actions (that is actions which would require consultation and consent in advance):

- Reclamation, infilling or drainage (other than cleaning of drains[2]) within 5m of the riverbank.
- Removal of trees; reseeding of lands where this has not been practiced for 10 years or more; or afforestation.
- Ploughing or use of any pesticides where this has not been practiced for 10 years or more.
- Any use of pesticides (herbicide or insecticide) within 5m of the riverbank.
- Intensification of current farming activity.

[2] Cleaning of existing drains within SACs is not a notifiable option.

- Alteration of the banks, channel, bed or flow of the river.

Ploughing
A minimum uncultivated margin from watercourses of 3m must be maintained. This will extend to 5m where the SAC boundary is greater than 2.5m.

Prescription setting out Farming Conditions applicable to Wet Grasslands, including Callows, Wet Lowland Grassland, Fens and Marshes

Grazing
Traditional[3] grazing practices to be maintained. The GLAS advisor shall confirm what constitutes traditional practice, which shall include the numbers and type of livestock, the species use and the seasonal grazing pattern. Sheep and/or goats are not to be introduced into areas where they have not been traditionally found. The land must not be under-grazed. Between the 10th March and the end of June a 1LU/ha stocking rate limit applies.

Supplementary Feeding
No supplementary feeding is to be introduced into areas where it was not traditionally done. Some feeding of concentrates may be permitted by agreement with National Parks and Wildlife Service in individual circumstances. Any such permission shall be written into the plan at the time such plan in prepared.

Mowing
In areas where the corncrake prescription does not apply mowing shall not be commenced before 30th June unless the land has been managed in the past that there is little diversity of plants. Any exceptions to this must be explained in the farm plan. 'Mowing' includes topping, grass chaining or rolling.

Fertilisation
Fertilising by chemical or organic means can take place in the same way, in accordance with 'Good Farming Practices', and with no intensification, only on callows that have been traditionally fertilised in that way.

Drainage
Maintenance of existing drains shall be permitted and no other drainage works shall be embarked upon except with the prior agreement of National Parks and Wildlife Service. Any such permission shall be written into the plan at the time such plan is prepared.

Dumping, Infilling or Burning of Vegetation
No dumping or infilling shall be allowed. Disposal of agri-waste, such as spoiled hay, is considered dumping and is prohibited. The piling and subsequent burning of waste hay is permitted on site so long as it is in accordance with normal legal provisions. The importing of materials from other sites for the purpose of burning is strictly prohibited.

Reseeding, Reclamation or Tree Planting
No reseeding, reclamation or tree planting shall be permitted except with prior agreement with National Parks and Wildlife Service and any such agreement shall be included in the plan.

Road Construction
Construction of new roads (including culverts and bridges) is permitted only with specific agreement with National Parks and Wildlife Service. Any such agreement is to be written into the plan. The

[3] 'Traditional' means practices in use over the previous ten years

maintenance of existing roadways is not restricted.

Use of Persistent Animal Treatments
Pest control chemicals, which are persistent in the animals and leave residues in animal dung for long periods shall not be applied to animals using the site. Pour-on or injectable forms are acceptable.

Use of Herbicides
Control of noxious weeds and docks is permitted by spot spraying only. The use of herbicides for the control of other species, or control by means other than spot spraying, shall be permitted only by specific agreement with National Parks and Wildlife Service and any such agreement shall form part of the plan.

Appendix 16: Details on Noxious and Invasive Species/Weeds

Noxious Weeds

A noxious weed is a plant species which has been designated by a statutory authority as one that is injurious to agriculture, horticulture, habitats/ ecosystems and humans or livestock. They are usually injurious to human or animal health. Noxious weeds can be native or introduced. A native species may not pose a threat when growing in a natural forest type situation, but becomes a problem with changing landscape; e.g. clearance to cultivation. They are usually plants, which multiply aggressively and without any natural control such as herbivores or soil or climatic conditions.

Ragwort (Senecio Jacobea) is also known as ragweed, buachalán and buachalán buidhe (in Ireland). Ragwort is highly toxic to cattle, horses, deer, goats, pigs and chickens. The poisonous substances in ragwort are toxic alkaloids (Jacobine, Jacodine and Jaconine). These cause the liver to accumulate copper, causing ill heath and death. The poisonous material contained in ragwort is not destroyed by drying. Grass silage containing ragwort is also a serious source of poisoning. Seed is the principle method of spreading this weed, but root fragments are also capable of reproduction. Each plant produces 50,000-200,000 seeds over a 4-6 week period. Ragwort is a biennial plant, i.e. it grows from seed and remains in the rosette stage for the first growing season. In the following year it produces its familiar golden yellow flowers on a stem varying in height from 45 to 75cm

Examples include Ragwort, Thistle, Dock, Common Barberry, Male Wild Hop, Spring Wild Oats.

Invasive Species

Invasive species are species that have been introduced (deliberately or accidentally) by humans and have a negative impact on the economy, wildlife or habitats of Ireland and Northern Ireland. After habitat loss, invasive species are the second biggest threat to biodiversity worldwide, and the biggest threat on islands.

Examples include New Zealand Bur, Sycamore, Great Maple, Daisies, Montbretia, European Rabbit, Reed Grass, Common Pitcher Plant, Canada Goldenrod, Cotoneaster, Himalayan Knotweed, Evergreen Oak, Holm Oak.

Further details on invasive species can be found at www.invasivespeciesireland.com

Appendix 17: Derogation Form for Specific GLAS actions

Action – Please tick the appropriate action	Protection of Watercourses from Bovines ☐ Riparian Margins ☐
Herd number	
LPIS parcel(s)	
Reason for derogation	
GLAS advisor name	
Signature	
Date	

Appendix 18: Form 1A for Farmland Birds

Form 1A

Adjustments to Conservation of Farmland Bird Actions for Twite A, Chough, Corncrake, Hen Harrier and Breeding Waders (for GLAS participants with Total[4] Farmland Bird Reference Areas in excess of 19 ha only)

1. Identification of Full or Split LPIS Parcels where the fertiliser restriction outlined within the GLAS Specification will not apply.

LPIS Parcel Number or Plot Number	LPIS Parcel Number or Plot Number

[4] Total is the sum of all farmland bird action(s) listed above. e.g. 10ha reference area Twite A + 10ha reference area Hen Harrier = 20ha total.

2. Where the GLAS applicant has more than 19 ha reference area of Farmland Bird Action(s) AND wishes to remove MORE than 20% of the Area completely from the GLAS contract, the GLAS Advisor must complete the justification below.

The GLAS applicant seeks permission to remove a total of _____ hectares reference area amounting to _____% of the total identified area from his/her GLAS contract. The full/split LPIS parcels to be removed are identified on the GLAS online system.

The justification for this is as follows:

Please indicate the approximate percentage of the holding normally cut for fodder _____ %

Signature of GLAS Advisor _____

Note: Form 1A must be completed in full and submitted at the time of lodging the GLAS application. Each GLAS applicant seeking to remove more than 20% of the total Farmland Bird Area identified on the GLAS online system will be examined on a case by case basis to ensure that the increased percentage is warranted.

However, please note where the LPIS parcels or Plots are designated Natura, you must continue to comply with the conditions of the designation.