DEPARTMENT OF AGRICULTURE, ENVIRONMENT AND RURAL AFFAIRS

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT BELMORE MOUNTAIN, COUNTY FERMANAGH. ARTICLE 28 OF THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002.

The Department of Agriculture, Environment and Rural Affairs (the Department), having consulted the Council for Nature Conservation and the Countryside and being satisfied that the area described and delineated on the attached map (the area) is of special scientific interest by reason of the flora, fauna, geological and physiographical features and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the 'Belmore Mountain Area of Special Scientific Interest'.

The area is of special scientific interest because of the diversity of geological and physiographical features and the wide range of habitats with associated flora and fauna. Biological interest relates to the size, quality and diversity of the habitats in addition to the presence of rare higher and lower plant species.

Belmore Mountain is situated in the uplands between Enniskillen and Belcoo, approximately 2.5km north of Lower Lough MacNean. The site consists of a raised plateau flanked by a significant limestone escarpment along its eastern and southern sides with a series of predominantly limestone hills beneath. This varied landscape supports a range of habitats including woodlands, grasslands and peatlands. The geological and topographical variation of Belmore Mountain, in addition to other factors such as climate and the maintenance of traditional farming practices have had a major influence on the biological interest. This combination has resulted in the complex and diverse mosaic of semi-natural habitats.

The geology of the Belmore Mountain area exerts a strong influence on the topography and characterises the type and quality of the habitats present. Steep gradients to the north and east of the area are associated with the change from Dartry to Knockmore and then Glencar Limestones; these areas support most of the mature woodland. The majority of calcareous grassland is associated with mud mounds within the Knockmore Limestones at Carrickmacsparrow, Gortatole and Moneyouragan; whilst at Rahallan, the grassland has developed on the Glencar Limestone. The northern central plateau is underlain by the Glenade Sandstones, forming higher ground with poor drainage; this supports an area of blanket bog and wet heath.

The rocks of the Belmore Mountain area date from the Carboniferous period, some 350 million years ago. While dominated by limestone, the Belmore Mountain area also holds shale and sandstone rocks originally deposited as soft sediment in marine environments. The oldest rocks within the site are the fossiliferous Benbulben Shale Formation that outcrop in the east of the site below the younger Glencar and Dartry Limestone Formations.

The site also contains the type locality for the Carrickmacsparrow Limestone Member. It occurs near the top of the Dartry Limestone Formation in the Carrickmacsparrow townland and consists of some four metres of unbedded, fawn to medium-grey fine grained and coarse fossil-fragment rich limestone that displays sharp upper and lower contacts with the typical dark grey, cherty Dartry limestone. The fossil fragments are mostly less than 1mm in size and are dominated by crinoids with some brachiopod and bryozoan clasts present. The

Carrickmacsparrow Member becomes finer grained toward its top with more coarse, fossil-fragment rich parts found in a matrix of fine grained pellets and calcite cement. It shows an absence of lime-mud, indicating deposition in active, turbulent water with strong currents and shallow water depths at or just below wave base. The occurrence of grading and erosional channels and cross-laminations indicates a probable origin as current-swept carbonate sandbars or shoals and is evidence of at least periodic shallow water conditions in the top part of the Dartry Limestone across the whole basin.

The geological significance of the Belmore Mountain area is enhanced by the presence of surface karst features that include episodic streams, swallow holes, dry valleys, collapse dolines, solution dolines, limestone gorges, natural arches and karst windows.

Semi-natural woodlands occur underneath the scarp cliffs from Tonlisderritt in the north, to Tents on the southern side. The woodland includes the steep sided undercliff woods, smaller scattered stands of trees and scrub and wooded streams running down through Glasmullagh. Together, these represent a significant area of woodland in Northern Ireland. The composition of the woodland is influenced by climate, slope, aspect and soil-type, in addition to past and present management. The majority of the woodlands are on the limestone and as a result are mostly base-rich in character. These factors have produced a notable range of woodland plant communities throughout the slopes and valleys. The Belmore Mountain woodlands are very natural in their composition and have very few exotic species present within the structural layers of the woodland.

The woodlands on the steep slopes below the cliffs are dominated by Ash *Fraxinus excelsior* with occasional Goat Willow *Salix caprea* and Downy Birch *Betula pubescens.* There is a well-developed understorey of Hazel *Corylus avellana* and varying amounts of Hawthorn *Crataegus monogyna,* Holly *Ilex aquifolium* and rarely Rowan *Sorbus aucuparia.* The unstable steep slopes below the cliffs tend to be relatively dry with a well-developed field layer dominated by ferns such as Lady-fern *Athyrium filix-femina,* Broad Buckler-fern *Dryopteris dilatata*, Male-fern *Dryopteris filix-mas*, Hart's-tongue *Asplenium scolopendrium* and Soft Shield-fern *Polystichum setiferum.* The species-rich herb and moss layers reflect the underlying base-rich limestone rocks and include Enchanter's-nightshade *Circaea lutetiana*, Primrose *Primula vulgaris*, Wood Anemone *Anemone nemorosa*, Bluebell *Hyacinthoides non-scripta*, Herb-Robert *Geranium robertianum*, Wood-sorrel *Oxalis acetosella* and Water Avens *Geum rivale.* Where water flows down the cliff face and flushes down through the steep slopes, the vegetation reflects the wetter conditions, with species such as Bugle *Ajuga reptans*, Marsh Hawk's-beard *Crepis paludosa* and Great Horsetail *Equisetum telmateia.* The shaded, boulder-strewn woodland floor has a luxuriant growth of typical woodland mosses such as Common Pocket-moss *Fissidens taxifolius* var. *taxifolius*, Big Shaggy-moss *Rhytidiadelphus triquetrus*, Common Feather-moss *Kindbergia praelonga* and Mouse-tail Moss *Isothecium myosuroides.* Many of the species are typical of calcareous woods and damp base-rich soils and include Lesser Striated Feather-moss *Eurhynchium striatum*, Flat Neckera *Neckera complanata*, Hair pointed Feather-moss *Cirriphyllum piliferum*, Hart's-tongue Thyme-moss *Plagiomnium undulatum*, Short-beaked Wood-moss *Loeskeobryum brevirostre* and the liverwort Greater Featherwort *Plagiochila asplenioides.*

The lower slopes at the base of the escarpment are more waterlogged and wet woodland has developed with an Alder *Alnus glutinosa*, Ash *Fraxinus excelsior* and Goat Willow *Salix caprea* canopy. The understorey is sparse and has Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and occasional Hazel *Corylus avellana.* The ground flora reflects

the wetter conditions with Bugle *Ajuga reptans*, Creeping Buttercup *Ranunculus repens*, Wood-sedge *Carex sylvatica*, Remote Sedge *C. remota* and locally Greater Tussock-sedge *C. paniculata*.

Underneath the steep limestone cliffs at the crest of the escarpment, scrub woodland has developed on stabilised scree. With less structure and a more open profile, the low canopy is composed of Downy Birch *Betula pubescens*, Hazel *Corylus avellana*, Ash *Fraxinus excelsior*, Goat Willow *Salix caprea* and Hawthorn *Crataegus monogyna*. Bramble *Rubus fruticosus* agg. and Male-fern *Dryopteris filix-mas* are frequent in the field layer with scattered monodominant stands of Great Wood-rush *Luzula sylvatica*. In Culliagh and Tents the woodland opens up into grazed scrub and tall calcareous grassland, and the field layer becomes denser with increasing amounts of Bracken *Pteridium aquilinum* amongst the Bramble *Rubus fruticosus* agg., Male-fern *Dryopteris filix-mas* and Golden-scaled Male-fern *D. affinis*. Taller grass species begin to establish amongst the field layer with Cock's-foot *Dactylis glomerata*, Yorkshire Fog *Holcus lanatus*, Blue Moor-grass *Sesleria caerulea*, Downy Oat-grass *Avenula pubescens* and Crested Hair-grass *Koeleria macrantha*, with sprawling Heath Bedstraw *Galium saxatile*, Devil's-bit Scabious *Succisa pratensis*, Barren Strawberry *Potentilla sterilis* and Glaucous Sedge *Carex flacca*.

Belmore Mountain supports an important assemblage of epiphytic lichens due to the diversity of available habitat, the mild wet Atlantic climate, good air quality and historical continuity of woodland cover. The most important locations for epiphytic lichens are the areas of woodland and scrub which still have a relatively open tree canopy due to grazing, or where unstable steep slopes have prevented a closed woodland canopy developing. This more open tree canopy provides the higher light levels which many lichens prefer. The main lichen community at Belmore is the base-rich bark woodland community, which has developed on more open grown Willows *Salix* spp., but with smooth bark species found on Hazel *Corylus avellana*, some acid bark species on Downy Birch *Betula pubescens* and occasional records on Ash *Fraxinus excelsior* in the darker stands lower in the wood. Lichen species of particular interest include *Hypotrachyna sinuosa*, which is a strongly oceanic species of twigs in humid sheltered sites, *Degelia atlantica*, a scarce species found in old woodlands in the west of Ireland and *Protopannaria pezizoides*, a very rare species which is widespread on the more open Willows *Salix* spp. in the upper scarp woodland.

Inland rock habitats, in the form of cliff faces and block scree along the escarpment, support a diverse and extensive growth of bryophytes characterised by calcicolous species such as Crisped Neckera *Neckera crispa*, Comb-moss *Ctenidium molluscum* and Frizzled Crisp-moss *Tortella tortuosa*. Higher plants are usually the ferns Hart's-tongue *Asplenium scolopendrium* and Maidenhair Spleenwort *Asplenium trichomanes*, although in places Welsh Poppy *Meconopsis cambrica* can be frequent on the uppermost edge of the escarpment.

Grassland communities are complex and reflect the variation in soils, topography, hydrology and other environmental factors, in addition to agricultural management. The grasslands range from dry calcareous, where the limestone is at or near the surface, through to wetter flushed grasslands over drumlin hills and slopes. They often occur as part of a complex mosaic of different community types.

The upper slopes of Belmore Mountain to the east of the main escarpment consist of a series of knolls and crags where calcareous grassland has developed on thin skeletal soils from Rahallan in the east through to Tonardrum in the west. A diverse range of grasses dominate

with Blue Moor-grass *Sesleria caerulea,* Quaking-grass *Briza media*, Crested Hair-grass *Koeleria macrantha*, Red Fescue *Festuca rubra,* Sheep's-fescue *Festuca ovina* and Sweet Vernal-grass *Anthoxanthum odoratum* prevalent, with a wide range of low-growing light-demanding sedges and herbs. Sedges reflect the calcareous conditions on the knolls with Glaucous Sedge *Carex flacca* constant alongside Spring-sedge *C. caryophyllea.* Where there is increased moisture, Carnation Sedge *Carex panicea* and Flea Sedge *C. pulicaris* occur occasionally. Herb diversity is high with Devil's-bit Scabious *Succisa pratensis*, Wild Thyme *Thymus polytrichus*, Common Birds-foot-trefoil *Lotus corniculatus*, Lady's Bedstraw *Galium verum*, Harebell *Campanula rotundifolia*, Bulbous Buttercup *Ranunculus bulbosus*, Common Milkwort *Polygala vulgaris*, Mouse-ear-hawkweed *Pilosella officinarum* and Fairy Flax *Linum catharticum* being the most abundant and regularly occurring species. Moss cover is variable, with Big Shaggy-moss *Rhytidiadelphus triquetrus*, Comb-moss *Ctenidium molluscum*, Crisped Neckera *Neckera crispa*, Neat Feather-moss *Pseudoscleropodium purum*, Golden-head Moss *Breutelia chrysocoma*, Broom Fork-moss *Dicranum scoparium* and Frizzled Crisp-moss *Tortella tortuosa* the commonest species. On exposed rock surfaces, the liverwort Tamarisk Scalewort *Frullania tamarisci* can be prolific. Notable plants are widespread throughout the drier grasslands and include orchids such as Chalk Fragrant-orchid *Gymnadenia conopsea* and Frog Orchid *Coeloglossum viride.* Other uncommon species such as Common Juniper *Juniperus communis*, Kidney Vetch *Anthyllis vulneraria* and Mountain Everlasting *Antennaria dioica* occur on south-facing slopes and exposed rocky knolls. Irish Eyebright *Euphrasia salisburgensis* var. *hibernica*, which is endemic to calcareous grasslands in Ireland, is present at a few scattered locations. The calcareous grassland has a significant colony of the rare Dense-flowered Orchid *Neotinea maculata* which occurs in one of only two of its known locations in Northern Ireland and is at the extreme northern edge of its range. Autumn Gentian *Gentianella amarella* occurs on the open south-facing knolls, the plant is restricted to a handful of Northern Ireland sites with Belmore Mountain being an important colony. Blue-eyed-grass *Sisyrinchium bermudiana* is abundant on the damper, slightly more neutral grasslands on the lower slopes of the escarpment in Rahallan.

Wet grassland occurs in a complex mosaic with wet heath vegetation and covers many of the lower slopes, particularly in the townland of Glasmullagh below the eastern scarp of Belmore Mountain. The grassland is predominately of the Purple Moor-grass and rush pastures type; fen meadow, a particular type of Purple Moor-grass and rush pasture, has developed on thin peaty soils flushed by base-rich water. Species such as Meadow Thistle *Cirsium dissectum* and Sharp-flowered Rush *Juncus acutiflorus* are constant. Other distinctive species associated with the fen meadow include Purple Moor-grass *Molinia caerulea*, Tormentil *Potentilla erecta*, Devil's-bit Scabious *Succisa pratensis*, Heather *Calluna vulgaris*, Lesser Spearwort *Ranunculus flammula*, Selfheal *Prunella vulgaris*, Carnation Sedge *Carex panicea*, Tawny Sedge *C. hostiana*, Flea Sedge *C. pulicaris* and Glaucous Sedge *C. flacca*. The predominant mosses within the grassland are Golden-head Moss *Breutelia chrysocoma* and Pointed Spear-moss *Calliergonella cuspidata*; other mosses present include Glittering Wood-moss *Hylocomium splendens* and Neat Feather-moss *Pseudoscleropodium purum.* Orchids such as Common Twayblade *Neottia ovata*, Heath Spotted-orchid *Dactylorhiza maculata* and Lesser Butterfly-orchid *Platanthera bifolia* are scattered throughout the wet grasslands.

Springs and flushes are conspicuous across Belmore Mountain. Petrifying springs occur where groundwater rich in calcium bicarbonate seeps to the surface and on contact with the air, carbon dioxide is lost from the water and a hard deposit of calcium carbonate is formed. These deposits of calcium carbonate are often associated with thick growths of the moss Curled Hook-moss *Palustriella commutata* and form what is known as tufa. Tufa formations

occur occasionally along the base of the limestone cliffs in shaded conditions underneath the woodland canopy. Where there are gaps in the woodland, springs and seepage lines occur as base-rich flushes and these support a number of species including Dioecious Sedge *Carex dioica* and Water Avens *Geum rivale*. Where flushed vegetation is kept open by grazing, species-rich flushes and fens occur in a luxuriant lawn of small sedges such as Glaucous Sedge *Carex flacca*, Dioecious Sedge *C. dioica* and Long-stalked Yellow-sedge *C. lepidocarpa* and brown mosses such as Pointed Spear-moss *Calliergonella cuspidata*, Curled Hook-moss *Palustriella commutata* and Comb-moss *Ctenidium molluscum*. Typical herbs include Marsh Arrowgrass *Triglochin palustris*, Marsh Hawk's-beard *Crepis paludosa*, Devil's-bit Scabious *Succisa pratensis* and Common Butterwort *Pinguicula vulgaris* with occasional rushes such as Jointed Rush *Juncus articulatus*.

A large area of intact blanket bog occupies the main central plateau and extends from the townland of Tonardrum in the west to the main expanse at Gortgall in the east. The bog vegetation is characterised by Bog-mosses *Sphagnum* spp. and hypnoid mosses, ericoid dwarf-shrubs and other associated species, with the composition and abundance of these components dependent on local edaphic conditions. Flat, water-logged ground is characterised by the presence of species such as Heather *Calluna vulgaris*, Cross-leaved Heath *Erica tetralix*, Bog Asphodel *Narthecium ossifragum* and Common Cottongrass *Eriophorum angustifolium* over a mat of predominantly Red Bog-moss *Sphagnum capillifolium*, Lustrous Bog-moss *S. subnitens* and occasional Bog-moss Flapwort *Odontoschisma sphagni*. On more freely draining slopes, Heather *Calluna vulgaris*, Bilberry *Vaccinium myrtillus* and Hare's-tail Cottongrass *Eriophorum vaginatum* are typical over a mixed bryophyte mat. The larger bryophyte hummocks are dominated by Red Bog-moss *Sphagnum capillifolium* and Lustrous Bog-moss *S. subnitens* with Woolly Fringe-moss *Racomitrium lanuginosum* topped by Heather *Calluna vulgaris*. On shallower peats the vegetation is dominated by Heather *Calluna vulgaris* with Hare's-tail Cottongrass *Eriophorum vaginatum* and occasional Cross-leaved Heath *Erica tetralix* and Northern Deergrass *Trichophorum cespitosum*, growing over a rich Bog-moss *Sphagnum* spp. carpet.

Towards the edge of the plateau the topography and hydrology here is less suited to the creation of deeper peat and wet heath vegetation has developed. The wet heath occurs in a complex mosaic with fen meadow and blanket bog depending on peat depth. Dwarf shrubs dominate the wet heath with Heather *Calluna vulgaris* and Cross-leaved Heath *Erica tetralix* frequent alongside more occasional graminoids such as Northern Deergrass *Trichophorum cespitosum*, Common Cottongrass *Eriophorum angustifolium* and Hare's-tail Cottongrass *E. vaginatum*. There is a high cover of lower plants such as Golden-head Moss *Breutelia chrysocoma*, Bog-mosses *Sphagnum* spp., Glittering Wood-moss *Hylocomium splendens* and Reindeer Lichen *Cladonia portentosa*. Heather *Calluna vulgaris* generally forms a continuous stand but occasionally the wet heath is more open, supporting acid grassland with a range of grasses, such as Velvet Bent *Agrostis canina*, Common Bent *A. capillaris*, Heath-grass *Danthonia decumbens*, Wavy Hair-grass *Deschampsia flexuosa* and Mat-grass *Nardus stricta*.

The mounds just below the southern plateau are free draining and subsequently drier in character, resulting in the development of a thinner layer of peat covering the underlying limestone bedrock. Dry heath occurs on these well-drained thin peat soils. Ericoid cover is high in the dry heath with Heather *Calluna vulgaris* dominating alongside Bilberry *Vaccinium myrtillus* and Bell Heather *Erica cinerea*. Where soils are thin and grazing has allowed light to penetrate the ericoid canopy, there is a diverse array of grasses, herbs and sedges which

include Blue Moor-grass *Sesleria caerulea*, Heath-grass *Danthonia decumbens*, Quaking-grass *Briza media*, Glaucous Sedge *Carex flacca*, Wild Thyme *Thymus polytrichus*, Common Birds-foot-trefoil *Lotus corniculatus* and Fairy Flax *Linum catharticum.* As drainage improves and peats are replaced with thin soils over limestone, the dry heath occurs in a mosaic with both acid grassland and calcareous grassland, depending on the degree of leaching and soil type.

Belmore Mountain has been managed in a traditional way and has a high degree of naturalness. As a result, the area acts as an important reservoir for species, providing valuable feeding and roosting sites for a range of animals, including birds and invertebrates.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna, geological and physiographical features of the area:

1. Any activity or operation which involves the damage or disturbance by any means of the surface and subsurface of the land, including ploughing, rotovating, harrowing, reclamation and extraction of minerals, including rock, sand, gravel and peat, other than for established agricultural practices.

2. Any change in the present annual pattern and intensity of grazing, including any change in the type of livestock used or in supplementary feeding practice.

3. Any change in the established method or frequency of rolling, mowing or cutting.

4. The application of manure, slurry, artificial fertiliser or lime.

5. The application of herbicides, fungicides or other chemicals deployed to kill any form of wild plant, other than plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977.

6. The storage or dumping, spreading or discharge of any material not specified under paragraphs (4) or (5) above.

7. The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than for:

   (i) plants listed as noxious in the Noxious Weeds (Northern Ireland) Order 1977;

   (ii) normal cutting or mowing regimes for which consent is not required under (3) above.

8. The release into the area of any animal (other than in connection with normal grazing practice) or plant. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates; 'Plant' includes seed, fruit or spore.

9. Burning.

10. Changes in tree or woodland management, including afforestation, planting, clearing, selective felling and coppicing. Where the blanket bog, heathland or other features of interest within the ASSI boundary extends to the planted edge of conifer plantations, normal forestry operations to fell the trees outside the ASSI may take place unrestricted using standard best-practice guidance.

11. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations, except routine maintenance and use of roads for normal forestry management.

12 Alteration of natural or man-made features, the clearance of boulders or large stones, grading of rock faces and infilling of natural depressions.

13. Operations or activities, which would affect wetlands (include marsh, fen, bog, rivers, streams and open water), e.g.

    (i) change in the methods or frequency of routine drainage maintenance;

    (ii) modification of the structure of any watercourse;

    (iii) lowering of the water table, permanently or temporarily;

    (iv) change in the management of bank-side vegetation.

14. The disturbance, killing or taking of any wild animal except where such killing or taking is treated as an exception in Articles 5, 6, 11, 17, 20, 21 and 22 of the Wildlife (Northern Ireland) Order 1985.

15. The following activities undertaken in a manner likely to damage or disturb the interest of the area:

    (i) Educational activities;

    (ii) Research activities;

    (iii) Recreational activities;

    (iv) Exercising of animals.

16. Changes in game, waterfowl or fisheries management or fishing or hunting practices.

17. Sampling of rocks, minerals, fossils or any other material forming a part of the site, undertaken in a manner likely to damage the scientific interest.

18. Use of vehicles or craft likely to damage or disturb the wildlife or geological features of the area.

FOOTNOTES

(a) Please note that consent by the Department to any of the operations or activities listed in the Schedule does not constitute planning permission. Where required, planning permission must be applied for in the usual manner to the council or the Department for Infrastructure under Part 3 of the Planning Act (Northern Ireland) 2011. Operations or activities covered by planning permission are not normally covered in the list of Notifiable Operations.

(b) Also note that many of the operations and activities listed in the Schedule are capable of being carried out either on a large scale or in a very small way. While it is impossible to define exactly what is large and what is small, the Department would intend to approach each case in a common sense and practical way. It is very unlikely that small scale operations would give rise for concern and if this was the case the Department would normally give consent, particularly if there is a long history of the operation being undertaken in that precise location.

BELMORE MOUNTAIN

Views About Management
The Environment (Northern Ireland) Order 2002 Article 28(2)

A statement of The Department's views about the management of Belmore Mountain Area of Special Scientific Interest ("the ASSI")

This statement represents the views of the Department about the management of the ASSI for nature conservation. This statement sets out, in principle, our views on how the area's special conservation interest can be conserved and enhanced. The Department has a duty to notify the owners and occupiers of the ASSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the ASSI and there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest. It is also very important to recognise that management may need to change with time.

The management views set out below do not constitute consent for any operation or activity. The written consent of the Department is still required before carrying out any operation or activity likely to damage the features of special interest (see the schedule on pages 6-8 for a list of these operations and activities). The Department welcomes consultation with owners, occupiers and users of the ASSI to ensure that the management of this area maintains and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

MANAGEMENT PRINCIPLES

Carboniferous stratigraphy

Belmore Mountain contains a type locality for the Carrickmacsparrow Limestone Member of the Dartry Limestone Formation. It also has karst features that form a part of the physical character of the site. Earth Science features such as those at Belmore Mountain may require occasional management intervention in order to maintain access to, and exposure of, the geology. This could include selective removal of vegetation or any major build up of loose rock.

Specific objectives include:

Maintain the geological series in an undamaged state.

Maintain access to the geological series.

Calcareous grassland

Calcareous grasslands are an important habitat for wildlife. The Department would encourage the maintenance and enhancement of the grassland, through the conservation of its associated native plants and animals.

Many of the more sensitive species can be quickly lost through intensive management treatments, therefore the application of pesticides, including herbicides, or any fertiliser would be damaging and should be avoided. However, grassland generally needs some management to retain its interest. Although occasional small patches of scrub can be valuable in providing additional habitat niches for birds and invertebrates, in the absence of management, coarse grasses can quickly take over and ultimately woody species may become dominant.

Grazing by cattle and/or sheep is the most effective way of controlling the growth of more vigorous species and helping to maintain open areas and a diverse sward structure. In the absence of grazing, cutting of the vegetation to create open areas and reduce the dominance of coarse grasses is desirable.

Specific objectives include:

Low intensity grazing has contributed to the conservation and enhancement of the features of interest. The Department would encourage the continuation of this practice.

Prevent the loss of more sensitive grassland species through the control of scrub, bracken and rushes. In general, this can be achieved through the appropriate grazing regime. In some cases, other methods of control such as cutting may be required.

Maintain the diversity and quality of the species-rich grassland by ensuring there is no application of fertiliser, slurry, manure or herbicide to the site.

Purple Moor-grass and rush pastures

Purple Moor-grass and rush pastures are an important habitat for wildlife. The Department would encourage the maintenance and enhancement of the grassland, through the conservation of its associated native plants and animals. These include important invertebrates such as the Marsh Fritillary butterfly.

Many of the more sensitive species can be quickly lost through intensive management treatments, such as fertiliser and herbicide application. However, grassland generally needs some management to retain its interest. Although occasional small patches of scrub can be valuable in providing additional habitat niches for birds and invertebrates, in the absence of management, coarse grasses can quickly take over and ultimately woody species may become dominant.

Grazing by cattle is the most effective way of controlling the growth of more vigorous species and helping to maintain open areas and a diverse sward structure, although overgrazing should be avoided as the wet soils are particularly susceptible to poaching. In the absence of grazing, cutting of the vegetation to create open areas and reduce the dominance of coarse grasses is desirable.

Specific objectives include:

Low intensity grazing has contributed to the conservation and enhancement of the grassland. The Department would encourage the continuation of this practice.

Maintain the diversity and quality of the species-rich grassland by ensuring there is no application of fertiliser, slurry, manure or herbicide to the site.

Prevent the loss of more sensitive grassland species through the control of scrub, bracken and rushes. In general, this can be achieved through the appropriate grazing regime. In some cases, other methods of control such as cutting may be required.

Mixed Ashwoods

Mixed Ashwoods is an important habitat for wildlife. It provides food and shelter for a wide variety of mammals, birds and invertebrates.

The Department would encourage the maintenance and enhancement of the woodland through the development of its structure and the conservation of its associated native plants and animals.

Specific objectives include:

Encourage the woodland to become more "mature" by avoiding disturbance. The structure of the wood will gradually become more diverse, with well-developed canopy, shrub and ground layers, and an abundance of species like mosses, liverworts and fungi that live on the trees themselves.

Encourage the retention of dead wood, both on the woodland floor and still standing in the canopy. Dead wood is a very important habitat for some of the less conspicuous woodland species, such as fungi and invertebrates.

Encourage regeneration of woodland and discourage damage to trees and shrubs through the control of grazing. In general, natural regeneration is preferable to planting. However, some areas of open woodland and scrub are important for lichens. Where this is the case, maintaining this open woodland structure through appropriate woodland management is important to provide the higher light levels that lichens prefer.

Maintain good air quality. Lichens are very sensitive to pollution.

Blanket Bog and Heath

Blanket bog and heath are important habitats for wildlife. Much of the ASSI contains a mosaic of Heather-dominated habitats such as wet heath, dry heath and blanket bog. The Department would encourage the maintenance and enhancement of this mosaic through the conservation of its associated native plants and animals.
Bogs and wet heaths depend on rainwater and maintaining a high water table is vital to their "health". In addition, the peat soils and many of the species that grow there are very sensitive

to physical disturbance. However, most heathland communities need some management to retain their interest. Small patches of scrub within heathland are valuable in providing additional habitat niches but, in the absence of management, woody species can quickly take over. On the other hand, too much grazing, especially through the winter, can cause heathers to be replaced by coarse grasses. Shepherding can help to spread grazing pressure over a wider area while fencing may also be useful in some cases to control stock numbers and movement.

Specific objectives include:

Low intensity grazing has contributed to the conservation and enhancement of the bog and heath. The Department would encourage a regime that avoids overgrazing or poaching.

Where the habitat has been subjected to heavy grazing, the Department would encourage a reduction in stocking density to allow the bog and heath to recover. Shepherding and fencing to control the movement of stock may also be beneficial in some situations.

Where appropriate, prevent the loss of light-demanding species through the control of scrub and bracken. In general, this can be achieved through the appropriate grazing regime. In some cases other methods of control, such as cutting, may be required.

Where burning is considered appropriate, it should only be undertaken after close consultation with, and the agreement of, the Department. Burning can cause the loss of more specialised plants and animals, and may damage the peat soils, leading to erosion. The burning of blanket bog should be avoided as the habitat is particularly sensitive to it.

Where appropriate, encourage the blocking of drains to prevent the vegetation from drying out.

Inland rock

Inland cliffs and screes often support specialised communities of plants and animals that are not found elsewhere and consequently tend to have restricted distributions. Many species, including a number of rare plants and lichens use the scree, crevices and cliff ledges as a shelter from extremes of climate and from competition with more dominant plants, or as a refuge from grazing.

Mature trees and woodland are associated with some of the drier scarps and among the more extensive boulder fields at the base of the slopes. A number of lichens associated with these scarps, screes and trees require relatively open conditions and are very sensitive to air pollution. Any sudden changes in canopy cover could alter the humidity balance and threaten some of these specialist species.

Cliffs and screes often need little or no management. Low levels of grazing can be beneficial in some circumstances, by preventing more vigorous species from shading out smaller, more delicate plants and lichens.

Specific objectives include:

Light grazing prevents more vigorous plants from shading out important lichen communities associated with inland rock and screes. Where appropriate, the Department would encourage the continuation of this practice.

On the other hand, where heavy grazing occurs, trampling and overgrazing can restrict sensitive species and communities of cliffs and scree slopes. Where overgrazing occurs, the Department would encourage a reduction in stocking density to allow some of these particular species to disperse more widely and to encourage the establishment of a steady supply of new generations of trees.

The Department would encourage sensitive recreational management. For example, new footpaths should generally be routed around scree rather than through it where possible.

Upland Flushes, Fens and Swamps

Flush and spring fens are an important habitat for wildlife. The Department would encourage the maintenance and enhancement of these fens, through the conservation of the associated native plants and animals. These include plants of limited distribution in Northern Ireland.

Flush and spring-fed fens occur where groundwater sometimes breaks out on the surface, either as gentle seepages, which give rise to flushes, or through greater flows that are evident as springs. The plants and animals that occur in and around these habitats are dependent on the water chemistry and flow rate. Therefore, the quantity and quality of the groundwater must be maintained. Groundwater is often susceptible to contamination by agricultural fertilisers, or pesticides, such as sheep dip. Many of the more sensitive species associated with the fen can also be quickly lost through intensive management treatments. Therefore, the application of pesticides, including herbicides, or any fertiliser would be damaging and should be avoided.

Flush and spring-fed fens are characterised by short sedge-rich vegetation and in some places, by tufa formations (calcified mineral outcrops caused by the high alkalinity of the water from the underlying limestone). Light grazing is the most effective way to keep the vegetation open around springs and flushes and to avoid excessive damage to tufa, where it occurs. In the absence of grazing, cutting of the vegetation to create open areas and reduce the dominance of coarse grasses is desirable.

Specific objectives include:

Low intensity grazing has contributed to the conservation and enhancement of the features of interest. Where feasible, the Department would encourage the grazing of

fen, although overgrazing should be avoided, as the wet soils are particularly susceptible to poaching. Where grazing is not possible, other management practices such as cutting may be used.

The Department would encourage the careful consideration of any schemes that could impact upon the sources of groundwater. The blocking of drains to prevent damage to the flush and spring-fed fens may also be appropriate.

The Department would encourage the maintenance of good water quality through the control of pollution and artificial enrichment.

Maintain the diversity and quality of the flush and spring-fed fens by ensuring there is no application of fertiliser, slurry, manure or herbicide to the habitat.

In general, the control of scrub within fen communities can be achieved through the appropriate grazing regime. In some cases, additional scrub control may be required.

Management principles applicable to all habitats and features throughout the site

Ensure that disturbance to the site and its wildlife is minimised.

Where appropriate, encourage the blocking of drains to prevent the blanket bog, fens, Purple Moor-grass and rush pastures or wet heath from drying out.

Discourage non-native species, especially those that tend to spread at the expense of native wildlife.

Maintain the diversity and quality of habitats associated with the main habitats, such as open water, swamp and scrub through sensitive management. These adjoining habitats are often very important for wildlife, especially invertebrates (such as moths, snails, beetles and butterflies such as the Marsh Fritillary).

Sealed with the Official Seal of the
Department of Agriculture, Environment and Rural Affairs
hereunto affixed is authenticated
by

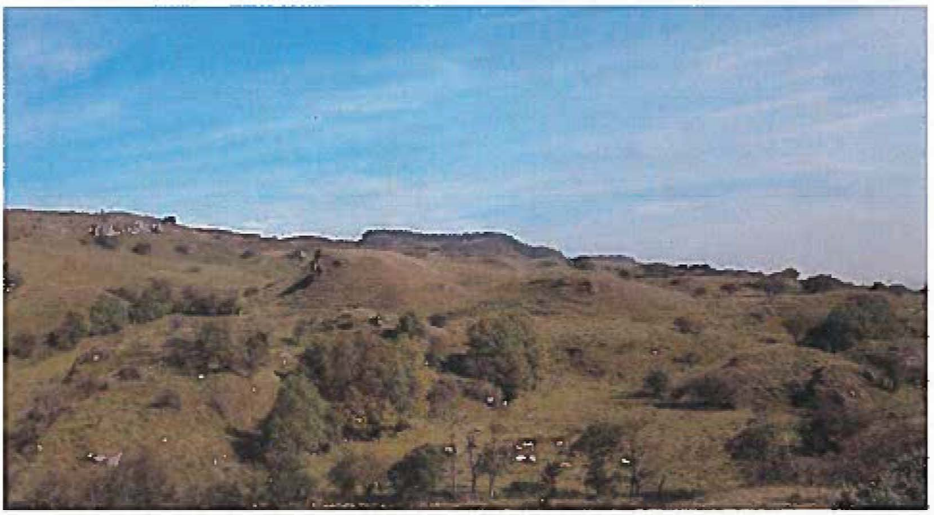
Helen Anderson

HELEN ANDERSON
Senior Officer of the
Department of Agriculture,
Environment and Rural Affairs

Dated the 29th of MARCH 2018

BELMORE MOUNTAIN

A SPECIAL PLACE...



View over the lower slopes of Belmore Mountain

SITES OF BIOLOGICAL AND EARTH SCIENCE IMPORTANCE HAVE BEEN SURVEYED BY NORTHERN IRELAND ENVIRONMENT AGENCY TO ASSESS THEIR SCIENTIFIC INTEREST. THE BEST SITES ARE NOW BEING DECLARED AS AREAS OF SPECIAL SCIENTIFIC INTEREST (ASSIs). IN DOING SO WE AIM TO SAFEGUARD THESE IMPORTANT SITES FOR THE BENEFIT OF PRESENT AND FUTURE GENERATIONS

Belmore Mountain is situated in the uplands between Enniskillen and Belcoo, approximately 2.5km north of Lower Lough MacNean. The site includes the scarp slopes of Belmore Mountain and much of the upper plateau, from Tonlisderritt in the north, to Tonardrum in the south-west. Belmore Mountain supports a range of habitats including woodlands, grasslands and peatlands, as well as a range of important plant and animal communities.

The site consists of a series of predominantly limestone hills with a limestone escarpment along its eastern and southern flanks.
The rocks of the Belmore Mountain area date from the Carboniferous period, some 350 million years ago.

Carrickmacsparrow Limestone

The carboniferous rocks exposed in the Carrickmacsparrow townland contain a distinct layer first recognised here and subsequently named as the Carrickmacsparrow Limestone Member. It is a distinctive horizon in the region as it was deposited in active, turbulent water with strong currents and shallow water depths, likely as current-swept carbonate sandbars or shoals.

Calcareous grassland

Belmore Mountain is a nationally important location for calcareous grassland. Good examples of this habitat are found from Rahallan in the east through to Tonardrum in the west. On limestone outcrops where soils are more calcareous, plants such as Blue Moor-grass and Quaking-grass are common, with Glaucous Sedge and Devil's-bit Scabious.

Herb diversity is high with Wild Thyme, Common Bird's-foot-trefoil, Lady's Bedstraw, Harebell, Bulbous Buttercup, Common Milkwort, Mouse-ear-hawkweed and Fairy Flax being the most abundant and regularly occurring species. Notable plants are widespread throughout the drier grasslands and include Chalk Fragrant-orchid, Frog Orchid, Kidney Vetch, Mountain Everlasting and the endemic Irish Eyebright. The very rare Dense-flowered Orchid occurs on thin soils on calcareous knolls.

Dense-flowered Orchid

Autumn Gentian occurs in similar conditions and is a very rare species only known from a handful of locations throughout Northern Ireland.

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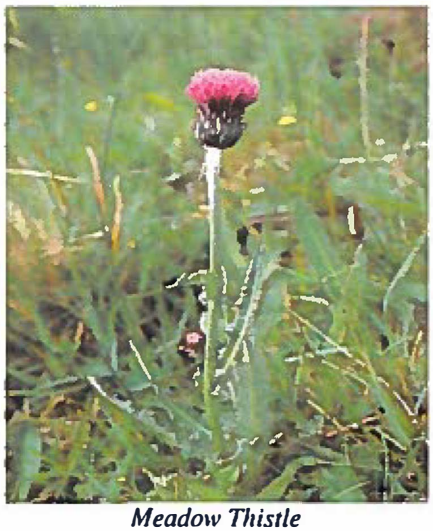
Autumn Gentian

The wet grasslands at Belmore Mountain occur on the slopes around Glasmullagh, as well as in a complex mosaic with the wet heath. This special type of wet grassland is known as Purple Moor-grass and rush pasture.

Fen meadow

Fen meadow, a particular type of Purple Moor-grass and rush pasture, occurs where there is a steady water flow through the soil.



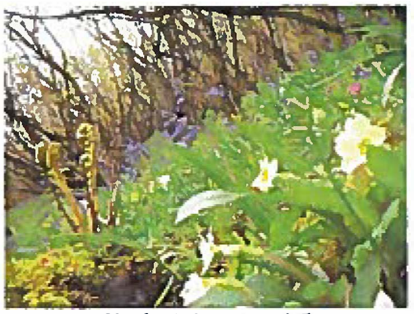
Meadow Thistle

This results in the occurrence of plant species adapted to both water movement and wetter conditions. Plants characteristic of this type of grassland include Sharp-flowered Rush, Purple Moor-grass, Meadow Thistle, Devil's-bit Scabious, Tawny Sedge and Flea Sedge.

Semi-natural woodlands occur underneath the scarp cliffs from Tonlisderritt in the north to Tents on the southern side. The woodland includes the steep sided undercliff woods, small scattered stands of trees and scrub and wooded streams in Glasmullagh.

Belmore woodland

Woodlands are comprised of different layers; canopy, shrub and ground layer. Each provides a wide range of food sources and places for wildlife to inhabit. These woodland layers are home to birds, flowering plants and to a range of less conspicuous inhabitants such as mosses, liverworts and lichens.



Herb rich ground flora

The woodlands on the steep slopes are dominated by Ash with Goat Willow and Downy Birch. The ground flora consists of woodland herbs such as Bluebell, Herb-Robert, Primrose, Wood-sorrel and Yellow Pimpernel.

On the plateau above the main escarpment, a mixture of blanket bog, wet heath and dry heath covers an area extending from Tonardrum in the west to the main expanse at Gortgall in the east.

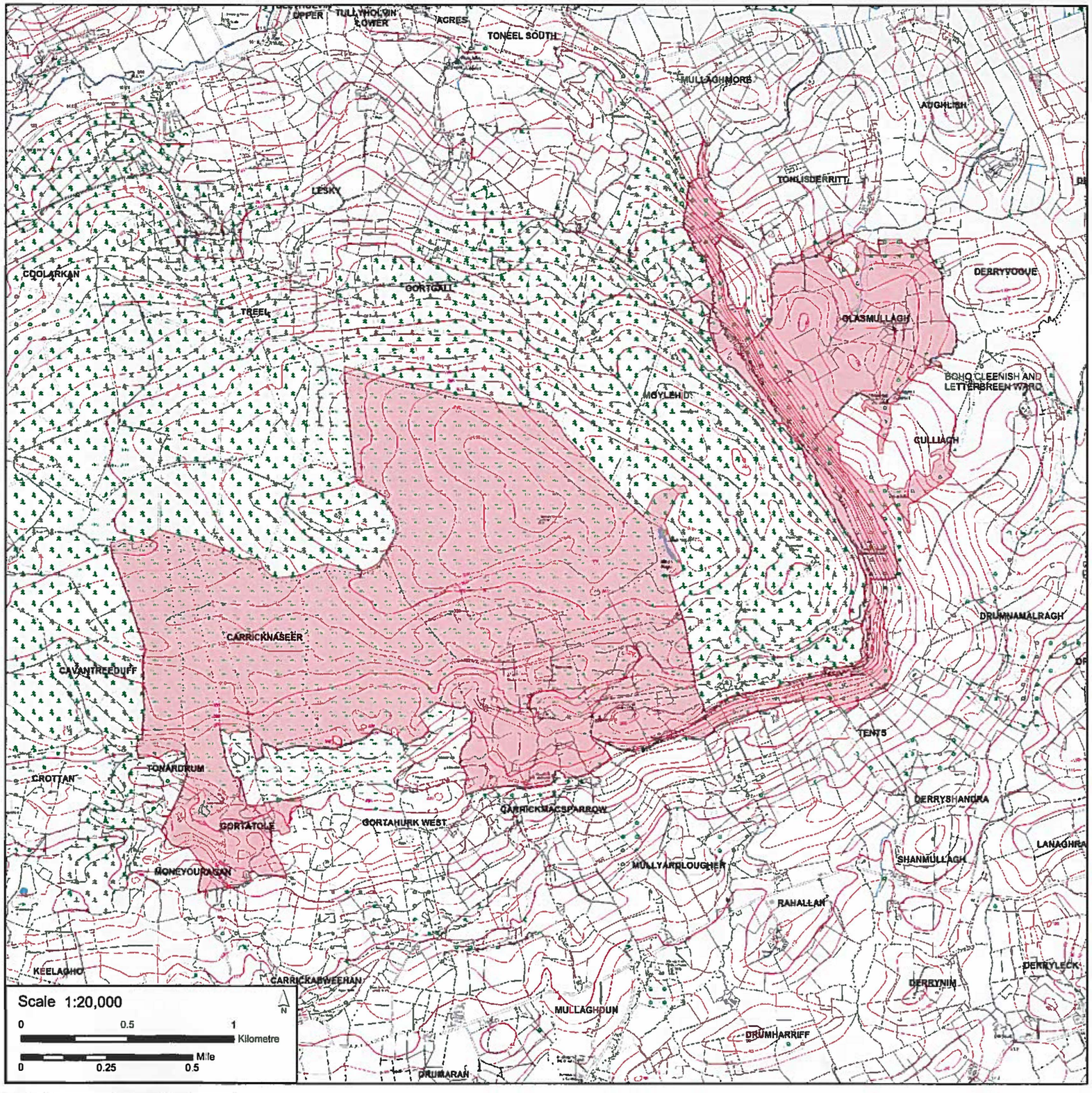
Wet and Dry heath

Where the peat is deep, the vegetation is dominated by lawns of Bog Asphodel and carpets of Papillose and Magellanic Bog-mosses, with Common Cottongrass and Round-leaved Sundew. On shallower peats Heather is dominant with Hare's-tail Cottongrass and Cross-leaved Heath, over a rich Bog-moss carpet.

Round-leaved Sundew

Many of these habitats are only found where traditional forms of land management are used. The use of artificial fertilisers, herbicides or the application of manure or slurry would cause a reduction in habitat quality on the site. Correct management is essential for special places like Belmore Mountain. If, for example, grazing was to cease, the grasslands and heathlands would quickly become rank and scrub would invade. This would cause a reduction in the numbers of grasses and wildflowers found here. Traditional agricultural practices will ensure the survival of the rich range of plants and animals at Belmore Mountain. Northern Ireland Environment Agency is keen to work closely with landowners to maintain and enhance Belmore Mountain ASSI.

BELMORE MOUNTAIN ASSI



BELMORE MOUNTAIN
AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: 29th MARCH 2018

SITE BOUNDARY: The Area of Special Scientific Interest (ASSI) includes all the lands highlighted within the solid coloured line.

AREA OF SITE: 461.40 hectares

OS MAPS 1:50,000: Sheet No.17
1:10,000: Sheet Nos. 210 228

IRISH GRID REFERENCE: H137 415

COUNCIL AREA: FERMANAGH AND OMAGH DISTRICT COUNCIL

COUNTY: FERMANAGH

Helen Anderson

HELEN ANDERSON
SENIOR OFFICER OF THE DEPARTMENT OF
AGRICULTURE, ENVIRONMENT AND RURAL AFFAIRS

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