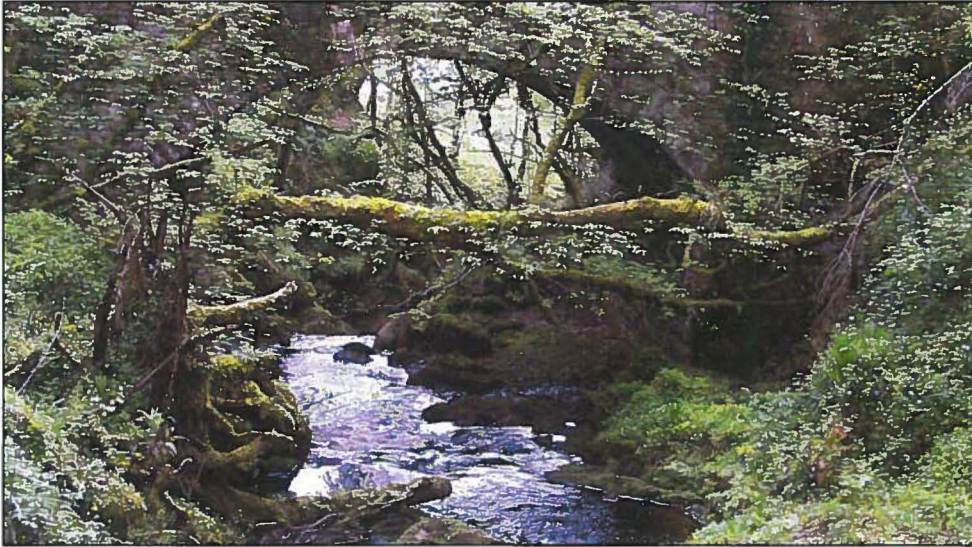


# SLOUGHAN AND WILLMOUNT GLENS

## A SPECIAL PLACE...



*Sloughan Glen*

SITES OF BIOLOGICAL AND EARTH SCIENCE IMPORTANCE HAVE BEEN SURVEYED BY THE ENVIRONMENT AND HERITAGE SERVICE 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.

Sloughan and Willmount Glens ASSI lies to the west of Drumquin, on tributaries of the Black Water river and is a special place, not only for its Oak woodland but also the species-rich wet grassland at Willmount Glen. Despite its moderate extent, the site includes a number of different woodland and grassland plant communities, including many notable plants.

In the past, most of Ireland was covered by forest. As agriculture spread, woodlands declined in extent. Today, less than 1% of Ireland has a semi-natural woodland cover, making it one of the least wooded areas in Europe. Woods are more than collections of trees. They also include all the species that live on and underneath the trees, making woodland one of the most important habitats for our native plants and animals.

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. These are collectively known as lower plants and are well suited to the moist conditions of the woodland. Fungi also commonly occur in woods and are of particular importance because they recycle nutrients from fallen leaves and dead wood. Invertebrates such as

insects and spiders are often present in abundance due to a combination of the layered structure, the accumulation of deep humus-rich soils, moist leaf litter and dead wood, all of which provide both shelter and food.

The woodlands occur in two small valleys. The western end of Sloughan Glen is predominantly mature Oak

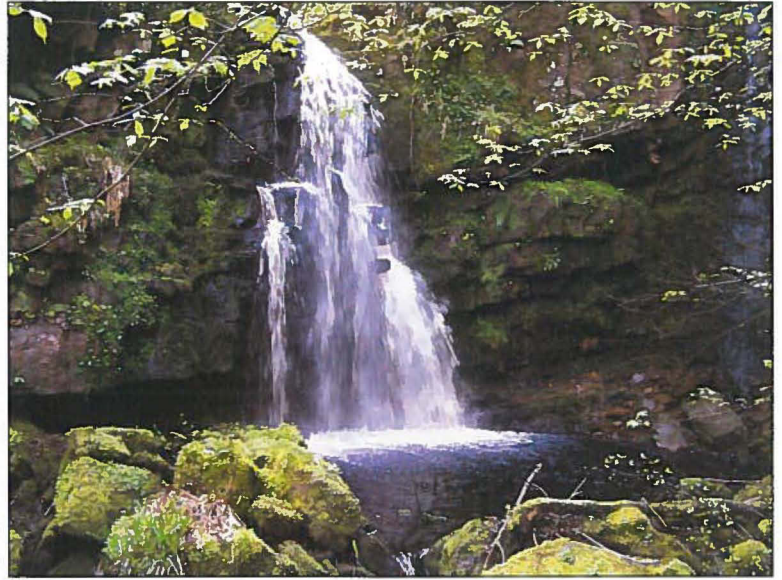


*View through the woodland at Sloughan Glen*



woodland, on dry, slightly acid soils. However, much of the canopy within this area is dominated by mature non-native trees, reflecting a period of past planting with species such as Beech. Towards the eastern end of the glen the woodland is more base-rich, indicated by the dominance of Ash in the canopy. Willmount Glen is similar, but with fewer non-native trees with the exception of a small stand of Larch to the western end of the glen. The remainder is mature Oak woodland with small pockets of Ash woodland throughout.

To the north of the woodland at Willmount Glen, species-rich wet grassland extends up the hill, grading into wet heath towards the top of the hill, where the slope begins to level out. Such species-rich grasslands



*Waterfall at Sloughan Glen*

tend to occur where land management is not intensive, usually where traditional farming practices have been maintained. Species-rich grassland is now a rare habitat in Northern Ireland. Where there is increased water movement through the soil and local water-logging, then species reflecting these wetter conditions predominate. A special type of wet grassland known

Common Spotted-orchid, Glaucous Sedge and Tawny Sedge. Where there is increased water movement on the steeper slopes, a particular type of rush pasture occurs, called fen meadow, characterised by the presence of Meadow Thistle.



*Meadow Thistle*

Many of these plants are only found in grasslands 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 plant numbers on the site. When soils become more fertile, grasses tend to thrive, growing faster and taller. Small plants such as orchids are not able to compete with the tougher grasses and as a result are lost.

Correct management is essential for special places like Sloughan and Willmount Glens. Traditional agricultural practices will ensure the survival of the rich range of plants. Environment and Heritage Service aims to work with landowners to ensure Sloughan and Willmount Glens are protected for the future.



*Common Spotted-orchid*

as Purple Moor-grass and rush pastures occurs in these areas. These grasslands are dominated by Sharp-flowered Rush, with abundant sedges and herbs typical of traditionally managed rush pastures, including Devil's-bit Scabious, Selfheal,



*Wood Anemone*

The shrub layer in both woodlands consists largely of Hazel, which in the absence of mature trees, frequently forms a dense, low canopy. Other shrub species include Holly, Rowan and Hawthorn. The field layer is comprised of a mixture of ferns and, in more acidic areas, Bilberry. The herb layer of the acidic glen slopes is dominated by Great Wood-rush with some Bluebell. However, the base-rich pockets are much more species-rich, including Wood Anemone, Sanicle, Lesser Celandine and Opposite-leaved Golden-saxifrage.

Sloughan Glen's high humidity, along with the seepage of water over the rock faces in the western part of the glen, provides ideal conditions for a diverse fern community, including the rare Beech Fern. These wet rock faces also provide an ideal niche for two other rare species, Rough Horsetail and Wood Fescue.

Woods take a very long time to develop into mature systems because they have a complex structure and many of the plants are slow to grow and spread. It is therefore vitally important that all remaining areas of woodland are retained and new areas are encouraged to regenerate.



## DEPARTMENT OF THE ENVIRONMENT

### DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT SLOUGHAN AND WILLMOUNT GLENS, COUNTY TYRONE. ARTICLE 28 OF THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002.

The Department of the Environment (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 and fauna and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the 'Sloughan and Willmount Glens Area of Special Scientific Interest'.

The area is of special scientific interest for its woodland and grassland habitats. Sloughan and Willmount Glens are composed of a range of vegetation communities, including oakwood with associated flushed and base-rich woodland and Purple Moor-grass and rush pastures at Willmount Glen. The glens are situated on the southern slope of Bolaght Mountain, with an altitude of approximately 100 – 180m above sea level.

The geology of the area is dominated by Carboniferous age sandstones of the Mullaghmore Formation. The base-rich nature of parts of the site may be due to thin limestones within the Mullaghmore sandstones, or the relatively close position of the more calcareous Bundoran Shales (also of Carboniferous age) which are a series of mudstones and limestones. A much younger (Palaeogene age) intrusive igneous dyke occurs along the length of Sloughan Glen. Soils are generally poor draining and are predominantly gleys and humic gleys.

Sloughan Glen is divided in two parts, split by a road. Within the western half of the glen, the upper slopes are covered by an acid woodland type with Sessile Oak *Quercus petraea*, Wych Elm *Ulmus glabra* and Downy Birch *Betula pubescens* inter-planted with Beech *Fagus sylvatica*. Despite Beech *Fagus sylvatica* being prominent in the canopy, the area still retains a diverse semi-natural woodland community and species assemblage. The shrub layer is comprised of Hazel *Corylus avellana*, which is common throughout and more sparingly Rowan *Sorbus aucuparia*, Hawthorn *Crataegus monogyna* and Holly *Ilex aquifolium*. The field layer is very rich where conditions are favourable, comprised of ferns such as Broad Buckler-fern *Dryopteris dilatata*, Hard-fern *Blechnum spicant* and to a lesser extent Hay-scented Buckler-fern *D. aemula*. Towards the top end of the glen where the wood is most acidic Bilberry *Vaccinium myrtillus* becomes a predominant component in the field layer. The ground flora is dominated by Bluebell *Hyacinthoides non-scripta* and Greater Wood-rush *Luzula sylvatica* along with associates such as Wood-sorrel *Oxalis acetosella* and Common Dog-violet *Viola riviniana* which characterise the more acidic nature of the soils.

The steep-sided, lower slopes within the western half of Sloughan Glen are wetter in parts due to flushing. This results in a less acidic assemblage of species with trees and



shrubs such as Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Alder *Alnus glutinosa* and Willows *Salix* spp. The ground flora is very variable and depends on the strength of flushing and the local presence of Beech *Fagus sylvatica* in the canopy layer. The flushed slopes display greater species diversity characteristic of more base-rich conditions with a mixture of herbs such as Lesser Celandine *Ranunculus ficaria*, Wood Anemone *Anemone nemorosa*, Bugle *Ajuga reptans* and Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* typically present. The high humidity coupled with the seepage of water over the rock faces in this part of the glen provide ideal conditions for a diverse fern community which includes Maidenhair Spleenwort *Asplenium trichomanes*, Hart's-tongue *Phyllitis scolopendrium*, Hard Shield-fern *Polystichum aculeatum*, and the rare Beech Fern *Phegopteris connectilis*. These wet rock faces also provided an ideal niche for two other rare species the Rough Horsetail *Equisetum hyemale* and Wood Fescue *Festuca altissima*.

To the east of the road, the woodland is more base-rich than within the steeper, upper reaches of the glen. The canopy is dominated by Ash *Fraxinus excelsior* with an understorey comprised largely of Hazel *Corylus avellana*. On the northern banks of the river within this lower half of the glen, the woodland is generally less mature with dense Hazel *Corylus avellana* dominating a low woodland canopy. The ground flora is indicative of these base-rich conditions, with Wood Avens *Geum urbanum*, Wood Anemone *Anemone nemorosa* and Primrose *Primula vulgaris* found throughout this area.

Willmount Glen consists of both woodland associated with the steep river glen, and species-rich wet grassland grading into heath on the upper south-facing slopes. The woodland is predominantly an acid woodland type with Sessile Oak *Quercus petraea* and Downy Birch *Betula pubescens*. The shrub layer below is comprised of Hazel *Corylus avellana*, Rowan *Sorbus aucuparia*, Hawthorn *Crataegus monogyna* and Holly *Ilex aquifolium*. The lower slopes of the woodland are wetter resulting in the dominance of Ash *Fraxinus excelsior* in the canopy. The ground flora is very variable and depends on the strength of flushing. Where the wood is most acidic Bilberry *Vaccinium myrtillus*, Hard-fern *Blechnum spicant* and Hairy Wood-rush *Luzula pilosa* dominate. The flushed areas display species more characteristic of base-rich conditions including Sanicle *Sanicula europaea*, Primrose *Primula vulgaris*, Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* and Yellow Pimpernel *Lysimachia nemorum*. The south-western portion of the site includes a stand of European Larch *Larix decidua* which has been included due to the natural ground flora underneath the trees similar to that throughout the rest of the wood.

To the north of the woodland species-rich wet grassland extends up the hill grading gradually into wet heath on the steeper slopes. This in turn grades into acid grassland towards the top of the hill. The wet grassland here is a particular type of Purple Moor-grass and rush pasture called fen meadow, which develops where there is a steady hydrological influence in the soil and is typified by the occurrence of species adapted to both water movement and wetter conditions. Within these flushed grasslands, species such as Meadow Thistle *Cirsium dissectum* and Sharp-flowered Rush *Juncus acutiflorus* are constant. Other distinctive species associated with fen meadow vegetation at Willmount Glen include Purple Moor-grass *Molinia caerulea*, Devil's-bit Scabious *Succisa pratensis*, Tormentil *Potentilla erecta*, Selfheal *Prunella vulgaris*, Lesser Spearwort *Ranunculus flammula*, Marsh Arrowgrass *Triglochin palustris*, Glaucous Sedge *Carex flacca*, Tawny Sedge *C. hostiana* and Common Spotted-orchid *Dactylorhiza fuchsii*.

Willmount Glen includes an area of wet heath on the higher and steeper slopes forming an integral mosaic with the grassland. The vegetation is dominated by Heather *Calluna vulgaris*, Cross-leaved Heath *Erica tetralix*, with frequent Bilberry *Vaccinium myrtillus*, Purple Moor-grass *Molinia caerulea* and a high cover of Bog-mosses *Sphagnum* spp.

The variation in topography and related soil hydrology, and the effects of past and present management have resulted in the presence of a wide range of plant species in a relatively small area. Recent management of the grassland and woodland has been one of minimal intervention. As such, it provides important habitats for animals, including breeding birds, mammals and invertebrates. It is hoped that continued sensitive management of the area will ensure that the rich assemblage of species at both Sloughan and Willmount Glens is maintained.

### SCHEDULE

**The following operations and activities appear to the Department to be likely to damage the flora and fauna 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 sand, gravel and peat.
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 or artificial fertiliser.
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 paragraph 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 paragraph 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.
11. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
12. Alteration of natural or man-made features, the clearance of boulders or large stones and grading of rock faces.
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 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 wildlife 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. Use of vehicles or craft likely to damage or disturb the wildlife 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 Department under Part IV of the Planning (Northern Ireland) Order 1991.

- (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.

## **SLOUGHAN AND WILLMOUNT GLENS**

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

#### **A statement of Environment and Heritage Service's views about the management of Sloughan and Willmount Glens Area of Special Scientific Interest ("the ASSI")**

This statement represents the views of Environment and Heritage Service 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. Environment and Heritage Service 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 Environment and Heritage Service is still required before carrying out any operation or activity likely to damage the features of special interest (see the Schedule on pages 3 - 5 for a list of these operations and activities). Environment and Heritage Service 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**

#### **Oakwood**

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

Environment and Heritage Service 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 Ivy, mosses, liverworts and lichens 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 and browsing. In general, natural regeneration is preferable to planting.

## **MANAGEMENT PRINCIPLES**

### **Purple Moor-grass and rush pastures**

Purple Moor-grass and rush pastures are an important habitat for wildlife. Environment and Heritage Service 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, 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. Environment and Heritage Service 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.

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

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

## **MANAGEMENT PRINCIPLES**

### **Applicable to all habitats throughout the site**

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

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 wet heath, blanket bog and grassland through sensitive management. These adjoining habitats can often be very important for wildlife.

Sealed with the Official Seal of the  
Department of the Environment  
hereunto affixed is authenticated  
by

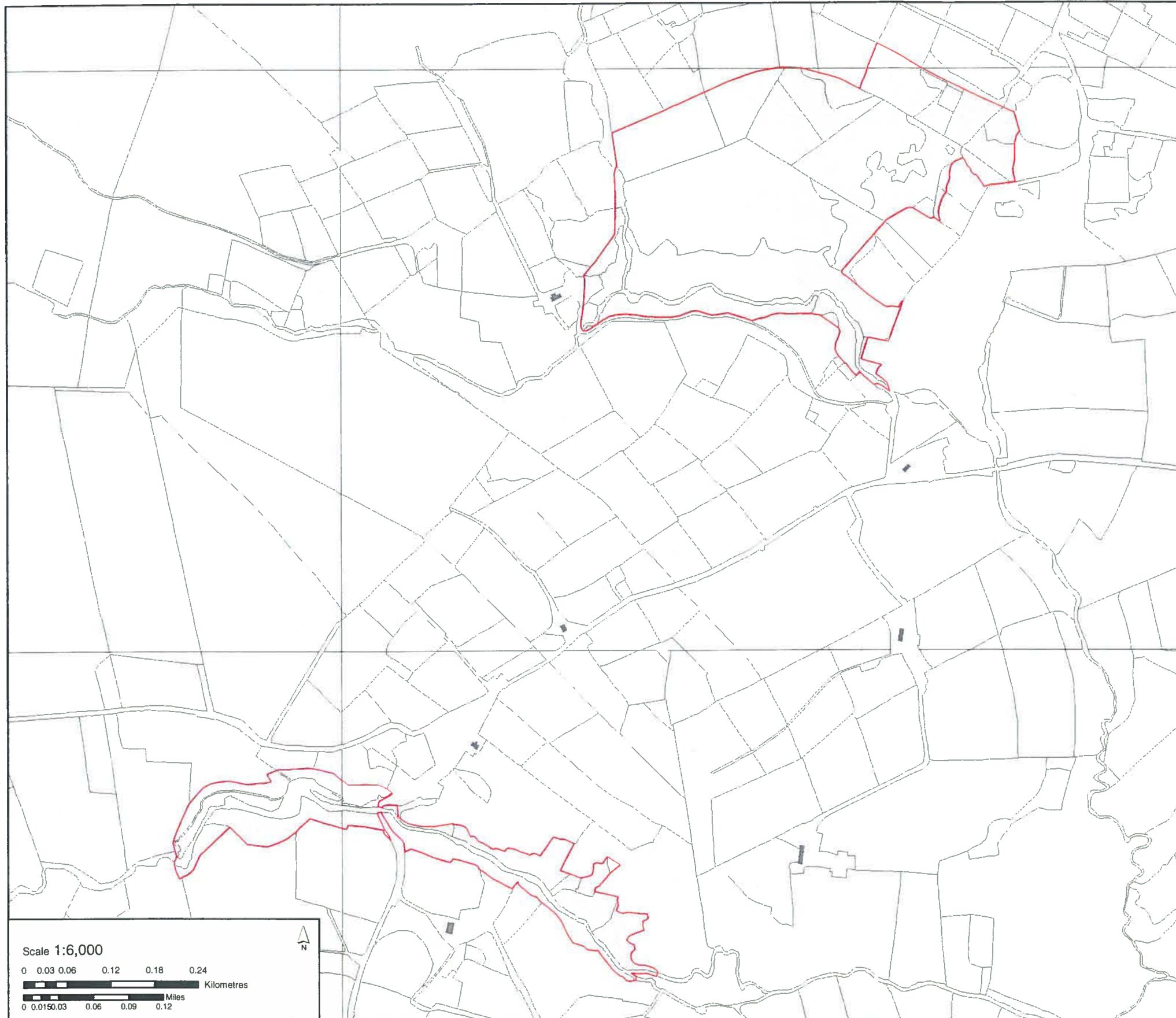


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Mr G R Seymour  
Senior Officer of the  
Department of the Environment

Dated the 27<sup>TH</sup> of SEPTEMBER 2007

# SLOUGHAN AND WILLMOUNT GLENS ASSI



## SLOUGHAN AND WILLMOUNT GLENS AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: 27 September 2007

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

AREA OF SITE: 19.47 hectares

OS MAPS 1:50,000: Sheet No. 12  
1:10,000: Sheet No. 119

IRISH GRID REFERENCE: H 282 750, H 277 741

COUNCIL AREA: OMAGH DISTRICT COUNCIL

COUNTY: TYRONE

*G. R. Seymour*

MR G R SEYMOUR  
SENIOR OFFICER OF THE  
DEPARTMENT OF THE ENVIRONMENT

