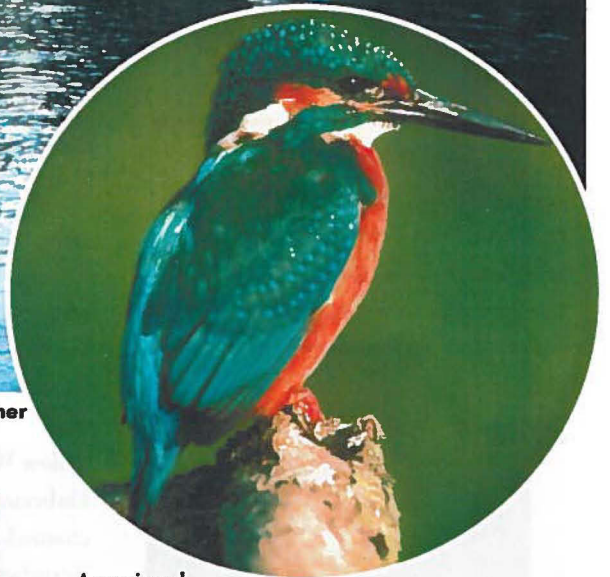


CLADAGH (SWANLINBAR) RIVER - A SPECIAL PLACE



The Cladagh River in its mid reaches

Kingfisher



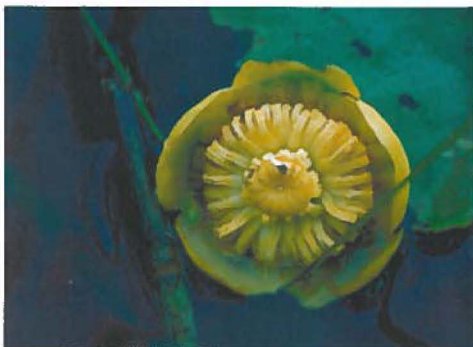
Rivers change as they flow down stream from the mountains to the sea. The channel gets wider, the speed of the water varies and the river bed and bank change in shape. All these features affect the environmental conditions for plants and animals and each part of the river has its own distinctive wildlife community. The river channel is home to aquatic flowering plants, mosses, liverworts and lichens, adapted to survive in waters, frequently very turbulent, that vary in depth and flow. Invertebrates,



particularly freshwater shellfish and crayfish, as well as insects, are important indicators of water quality.

Rivers host a range of fish species, which generally need a natural bed and clean water to spawn and maintain healthy populations and where fish populations are sufficiently large, rivers support Otters. River banks are also important for a wide variety of habitats, from fringing wetland vegetation to mature woodland.

Associated with the woodland are flowering plants, ferns, mosses, birds, mammals and invertebrates. River banks may be the only areas of natural habitat in an intensively farmed landscape. The best rivers are now being declared as Areas of Special Scientific Interest (ASSIs). In doing so we aim to guarantee the survival of Northern Ireland's wildlife and to protect the range of river communities for the enjoyment of future generations.

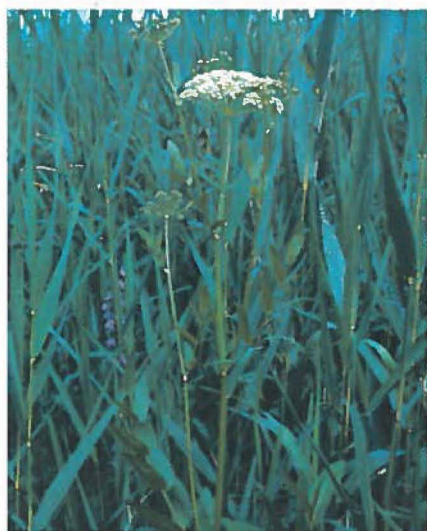


Yellow Water-Lily



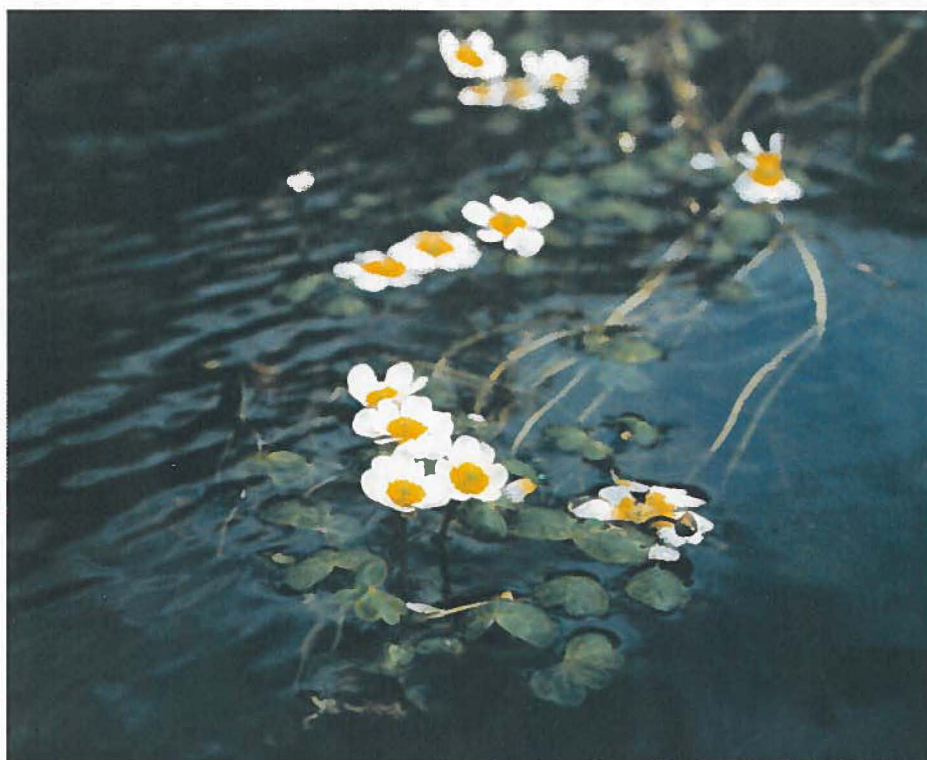
Otters

The Cladagh River is special as it still retains rich plant and animal communities compared to many other rivers. Although modified over much of its length in the past, recent human impact has been low, and through natural processes the river has recovered, recreating natural bank and channel features along most of its length. The river changes dramatically as it flows downstream from its source high on Cuilcagh Mountain in the Republic of Ireland. In these upper-reaches, where the stream tumbles over bedrock, boulders and cobbles, the waters are nutrient-poor. As it flows down off the mountain and into Northern Ireland, the river becomes more diverse, but is still naturally poor in nutrients. In these mid-reaches, the river runs swiftly over sand and gravel-beds as it meanders through lower ground. Only when the land levels out close to its confluence with Lough Erne, does the channel change again to a deep, nutrient-enriched watercourse flowing slowly over clay and silt.



Fen vegetation along the river bank.

The plant communities reflect the changing character of the river. In the upper-reaches mosses and liverworts dominate the vegetation within the river channel. In the mid-reaches, the river channel is frequently lined by trees, providing food, shelter and shading for both aquatic and terrestrial animals, as well as stabilising the river bank. Here, the main flowering plant in the channel is Stream Water-crowfoot, while Reed Canary Grass is common along the river



Stream Water-crowfoot

edge. As the river nears Upper Lough Erne, plant diversity increases, and many of the plants associated with the lough are also found in the river. In this stretch, higher plants are dominant, and mats of Broad-leaved Pondweed and Yellow Water-lily, together with Unbranched Bur-reed, occupy the channel. Species such as Bogbean, Branched Bur-reed and Water Forget-me-not emerge along the river margin. The Cladagh is one of the few rivers in Northern Ireland which still supports a significant population of the rare Freshwater Pearl Mussel which has suffered a dramatic decline this century. This species still persists where coarse sand and gravel are present in the undisturbed river bed. Both Salmon and Brown Trout have been recorded for the river, and Otter and Kingfisher are found along its length.



Freshwater Pearl Mussel

Rivers, and the wildlife that depends on them, take a considerable time to evolve but are very easily damaged by human activity. Drainage works alter the channel and the bed, resulting in a hostile environment for many inhabitants of the river and its bank. Pollution can cause obvious fish kills, but may also have long term effects on invertebrates and plants. It is therefore vitally important to maintain our rivers in as natural a state as possible in order to safeguard the wealth of wildlife that depends on them. Similarly, bankside vegetation takes a long time to develop because of its complexity and the fact that many plants are slow to grow and spread. Environment and Heritage Service aims to work with landowners to ensure that special rivers like the Cladagh are protected for the future.



DEPARTMENT OF THE ENVIRONMENT

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT CLADAGH (SWANLINBAR) RIVER, COUNTY FERMANAGH. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY LANDS (NORTHERN IRELAND) ORDER 1985.

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, fauna, 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 'Cladagh (Swanlinbar) River Area of Special Scientific Interest'.

The area is of special scientific interest because of the physical features of the river and its associated riverine flora and fauna. Although the river has been modified over much of its length in the past, the channel structure has recovered along some stretches, due to the natural dynamics of the river and low levels of human impact in recent years. The Cladagh (Swanlinbar) River is notable for the physical diversity and naturalness of the bank and channel, and the richness and naturalness of its species composition. It is one of the most important rivers for rare aquatic species and includes an important population of the Freshwater Pearl Mussel *Margaritifera margaritifera*.

The Cladagh (Swanlinbar) River rises on Cuilcagh Mountain and flows through County Cavan before crossing the border into County Fermanagh, where it widens and then enters Upper Lough Erne. The underlying geology of the catchment is Carboniferous limestone. The river runs through blanket bog before passing into predominantly pasture for the remainder of its length. The quality of the water is generally good throughout its length.

Within County Fermanagh the river has two distinct forms. The upper half is typical of fast-flowing rivers that are oligo-mesotrophic (generally rather poor in plant nutrients). Within these upper reaches of the river, vascular (higher) plants are restricted to a few species, with bryophytes (mosses and liverworts) being the main species found in the channel. The most common bryophytes are the liverworts *Chiloscyphus polyanthos* and *Marchantia polymorpha* and the mosses *Cinclidotus fontinaloides*, *Fontinalis antipyretica* and *Rhynchostegium riparioides*. The main vascular plants are Stream Water-crowfoot *Ranunculus penicillatus* var. *penicillatus* in the channel, with Reed Canary-grass *Phalaris arundinacea* common along the margins. The flow regime in the

upper reaches is mainly glide (smooth-flowing) with the channel substrate dominated by sands and gravels. Further downstream cobbles and gravels are the main stream substrates.

As it nears Upper Lough Erne, the lower half of the river is slow-flowing, very deep and eutrophic (generally rich in nutrients). Many of the plants which occur in these lower reaches are also found in the main lough. Bryophytes are very scarce in the channel here, with vascular plants dominant. These include stands of Broad-leaved Pondweed *Potamogeton natans*, Unbranched Bur-reed *Sparganium emersum* and Yellow Water-lily *Nuphar lutea*. Emergent species such as Bogbean *Menyanthes trifoliata*, Water Horsetail *Equisetum fluviatile*, Branched Bur-reed *Sparganium erectum*, Lesser Water-parsnip *Berula erecta*, Water Mint *Mentha aquatica* and Water Forget-me-not *Myosotis scorpioides* join Reed Canary-grass *Phalaris arundinacea* along the river margins. Tree cover is high along the banks in the mid-reaches of the river. Trees are important features for the ecology of the river because they provide food, shelter and shading for both aquatic and terrestrial animals, in addition to contributing towards bank stability.

The river is of particular importance for its associated fauna. The Cladagh (Swanlinbar) River is one of the few rivers in Northern Ireland that still retains a significant and viable population of the Freshwater Pearl Mussel *Margaritifera margaritifera*. The species occurs commonly and in high densities in the upper reaches, where coarse sands are present in the channel. Available information suggests that the river supports a good range of native fish species, including Brook Lamprey *Lampetra planeri*, in addition to the salmonids Salmon *Salmo salar* and Brown Trout *S. trutta*. Other species of interest include Otter *Lutra lutra* and Kingfisher *Alcedo atthis*, which are found along the length of the river.

SCHEDULE

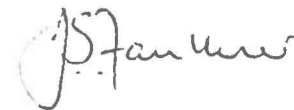
The following operations and activities appear to the Department to be likely to damage the flora, fauna and physiographical features of the area:

1. Any activity or operation which involves the damage or disturbance by any means of the surface and subsurface of the land and the river bed, including ploughing, rotovating, harrowing, reclamation and extraction of minerals, including sand, shingle, shell, gravel and peat.
2. Operations or activities which would affect wetlands (including marsh, fen, 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 (rivers, streams, springs, ditches, dykes and drains) including their banks and beds, by means such as re-alignment, infilling, damming, regrading, revetment, sheet piling and narrowing;
 - (iii) alterations to the water-table and water-level, permanently or temporarily;
 - (iv) change in the management of bank-side vegetation.
3. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
 4. Alteration of natural or man-made features, the clearance of boulders or large stones and grading of rock faces.
 5. The application of herbicides, fungicides or other chemicals, whether terrestrial or aquatic, deployed to kill any form of wild plant or animal, except for:
 - (i) plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977;
 - (ii) the correct practice and application of approved pesticides and veterinary products to those channels and pools specifically used for fish rearing and holding.
 6. 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.
 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 a consent is not required under (11).
 8. The release into the area of any plant, or animal (other than in connection with normal grazing practice), except for the established release into the area of Brown Trout *Salmo trutta* and Salmon *Salmo salar*. 'Plant' includes seed, fruit or spore. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates.
 9. Changes in game, waterfowl, fishing or hunting practices, or fisheries management.

10. 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.
11. Any change in the established method or frequency of rolling, mowing or cutting.
12. Any change in the annual pattern of application of manure, slurry, lime or artificial fertiliser.
13. The storage or dumping, spreading or discharge of any material not specified under paragraphs (5) or (12), including the disposal of sheep-dip solution.
14. Burning.
15. Changes in tree or woodland management, including afforestation, planting, clearing, selective felling and coppicing.
16. 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, including water sports;
 - (iv) Exercising of animals.
17. Use of vehicles or craft likely to damage or disturb the wildlife of the area.

Sealed with the Official Seal of the
Department of the Environment on 6 MARCH 2000



DR J S FAULKNER
Senior Officer of the Department
of the Environment

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 (NI) Order 1991. 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 give consent, particularly if there is a long history of the operation being undertaken in that precise location.

CLADAGH (SWANLINBAR) RIVER

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 the Cladagh (Swanlinbar) River 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 2-4 of the attached Document B 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

1. The river

Environment and Heritage Service would encourage the maintenance of varying flow rates and natural erosion and sedimentation processes by the appropriate management of channels and banks. Such management should include avoiding excavation of gravel shoals and bars, minimising in-river and bankside defence works, limiting abstraction during low flow years and avoiding dredging in the channel.

2. Pollution

Environment and Heritage Service would encourage a continuing reduction of pollution from industrial or agricultural sources, such as mineral workings and run-off of silt and nutrients from agricultural land.



3. Bankside Habitats

The ASSI supports rich and varied river and bankside wildlife habitats. Environment and Heritage Service would encourage the conservation and enhancement of the variety of vegetation present by careful bank use and maintenance. Marginal woodland is particularly important because it helps to stabilise the river bank and regulate the local climate, while submerged roots create a refuge for fish. Many of the insects and other invertebrates associated with the woodland provide food for fish.

4. Animals

The ASSI provides a habitat for a wide variety of mammal, bird, fish and invertebrate species. Environment and Heritage Service would encourage the maintenance and enhancement of these species and their habitats.

In particular, Freshwater Pearl Mussels should suffer as little disturbance as possible either through direct physical disturbance or through poor water quality. The movement and migration of fish species - primarily salmonids, which have a vital role in the Freshwater Pearl Mussel's juvenile development - should be maintained and enhanced by avoiding construction of temporary or permanent structures which could impede their passage through the river system.

5. Fishing

Environment and Heritage Service recognises the important economic and social roles of fishing and welcomes sustainable fishery management that is sensitive to the special interests of the ASSI.

6. Grazing

Low intensity grazing on riverside grasslands and stock feeding away from the banks has contributed to the conservation and enhancement of the features of interest. Environment and Heritage Service would encourage the extension of this practice.

7. Aliens

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

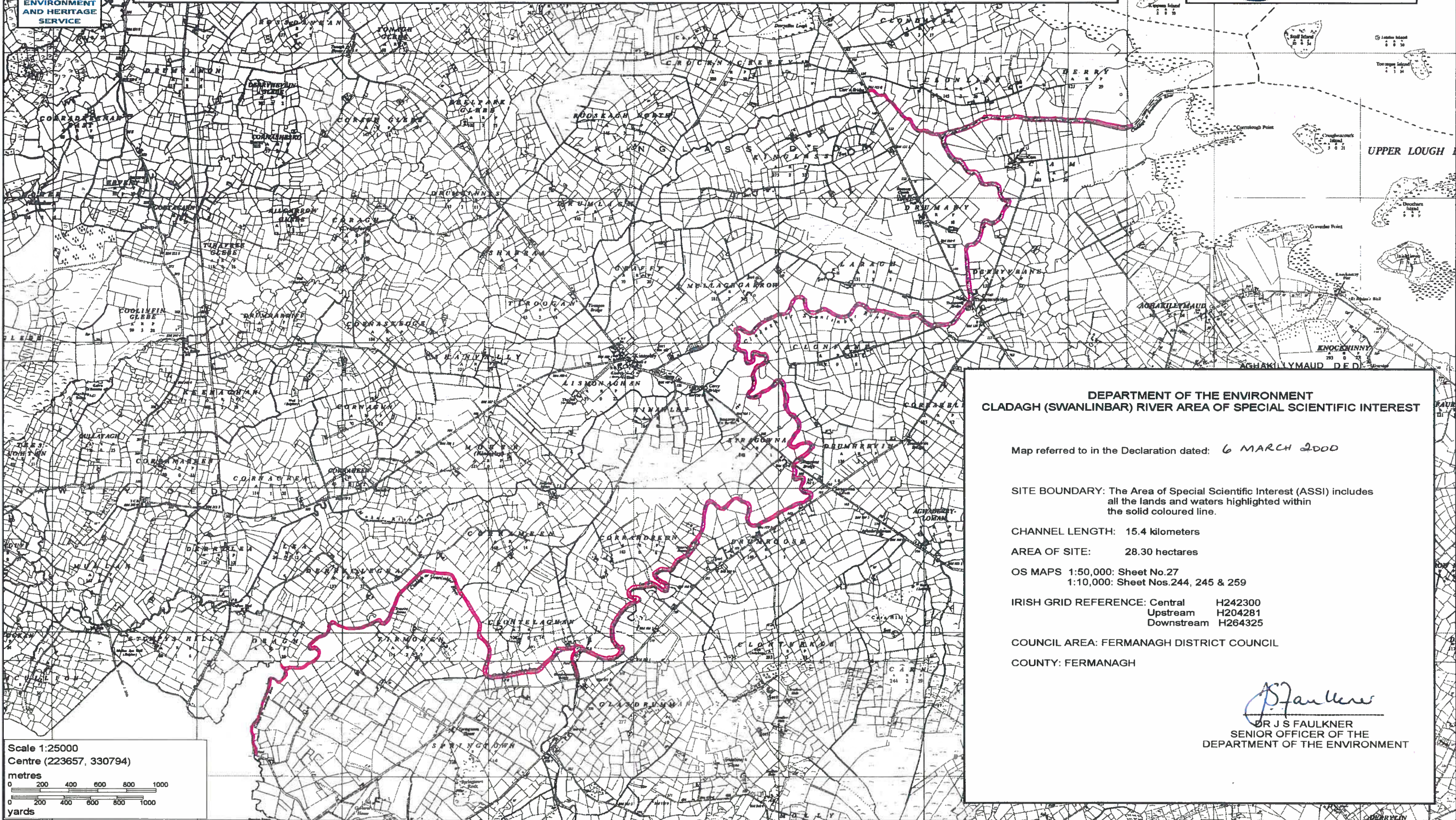


E Diane Stevenson
Authorised Officer

Dated the 23RD of JANUARY 2008



CLADAGH (SWANLINBAR) RIVER ASSI



DEPARTMENT OF THE ENVIRONMENT CLADAGH (SWANLINBAR) RIVER AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: 6 MARCH 2000

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

CHANNEL LENGTH: 15.4 kilometers

AREA OF SITE: 28.30 hectares

OS MAPS 1:50,000: Sheet No.27
1:10,000: Sheet Nos.244, 245 & 259

IRISH GRID REFERENCE: Central H242300
Upstream H204281
Downstream H264325

COUNCIL AREA: FERMANAGH DISTRICT COUNCIL

COUNTY: FERMANAGH

DR J S FAULKNER
SENIOR OFFICER OF THE
DEPARTMENT OF THE ENVIRONMENT

