TYRELLA & MINERSTOWN

A SPECIAL PLACE...

Tyrella and Minerstown

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.

Tyrella and Minerstown has been declared as an ASSI because of its intertidal sand and rock communities, sand dune systems and the associated flora and fauna.

The Minerstown shore is composed of a wide expanse of small and medium boulders with some small bedrock outcrops in the mid and lower shore. The shore is generally sheltered in character and dominated by seaweeds although more exposed rock tops are dominated by limpets and barnacles.

The Honeycomb Worm lives in tubes constructed of sand grains cemented together which may occur in dense aggregations known as biogenic reefs. These reefs are present between boulders in the middle shore and provide increased diversity of habitat.

The Tyrella shoreline is predominantly a linear beach extending for several kilometers. The lower shore is composed of damp, fine sand, while the mid and upper shore area is dominated by medium, shelly sand. The intertidal is dominated by burrowing worms, particularly the Lug Worm.

Honeycomb Worm biogenic reef

Oysterplant

Patches of shingle vegetation are scattered along the upper shore, and include Yellow Horned-poppy and Oysterplant., which is a northerly species in Britain and Ireland and occurs here at one of its most southerly locations.

Behind the upper shore at Tyrella is a sand dune system. Dune types vary from small, frontal dunes (embryo dunes) that often reform each Spring following destruction by Winter storms, to the older, more stable dunes (grey dunes) which are now isolated from sources of wind-blown sand. Between the embryo dunes and grey dunes is a narrow band of mobile sand (white dunes).

The small embryo dunes and white dunes where the sand is still being deposited have Sand Couch grass and Marram grass communities, but grade rapidly into grey dune communities, some of which are species-rich. Marram remains one of the main species but is accompanied by herbs including Cat's-ear, Common Restharrow, Lady's Bedstraw, Wild Thyme, Kidney Vetch and Bulbous Buttercup. A number of orchid species are present, including Bee Orchid and Pyramidal Orchid. Damper hollows harbour Early Marsh-orchid and Variegated Horsetail

Minerstown and Tyrella are important for the Common Seal. They utilise the rocky outcrops and rocks away from the shore as haul-out and pupping sites.

Intertidal communities and sand dunes support unique plants and animals that are irreplaceable. It is vitally important the best remaining areas are protected from adverse activities. Northern Ireland Environment Agency is keen to work closely with landowners to maintain and enhance Tyrella and Minerstown ASSI.

Seal haul-out at Minerstown

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DEPARTMENT OF THE ENVIRONMENT

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT TYRELLA AND MINERSTOWN, COUNTY DOWN. 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 'Tyrella and Minerstown Area of Special Scientific Interest'.

The area is of special scientific interest because of its coastal flora, fauna and physiography. Important habitats include intertidal rock, intertidal mud and sand, and sand dunes. The area is also important for species, including Oysterplant *Mertensia maritima* and Common Seal *Phoca vitulina.*

Tyrella and Minerstown is notable for its intertidal rock and sand communities. The intertidal area is characteristic of the south Lecale coastline. The Minerstown shore is composed of a wide expanse of small and medium boulders with some small bedrock outcrops in the middle and lower shore. The shore is generally sheltered in character and dominated by fucoids and Knotted wrack *Ascophyllum nodosum*, although more exposed rock tops are Patellobarnacle dominated. This part of the area ranges from a moderately exposed boulder shore in the mid-eulittoral with rockpools present, to sandstone ridges. The upper mid-eulittoral is dominated by the Common Limpet *Patella vulgata*, Toothed Wrack *Fucus serratus* and Knotted Wrack *Ascophyllum nodosum*, with expanses of Channelled Wrack *Pelvetia canaliculata* in the sheltered areas. The lower eulittoral is dominated by False Irish Moss *Mastocarpus stellatus* and encrusting red algae. The brown algae Oarweed *Laminaria digitata* and Thongweed *Himanthalia elongata* typify lower shores.

Biogenic reefs of the Honeycomb Worm *Sabellaria alveolata* are present between lower mid-littoral and lower littoral boulders; these reefs also provide increased diversity of habitat, with older reefs having somewhat more diverse communities than younger ones. This increased diversity is usually associated with crevices. Common invertebrates include Thick Top Shell *Osilinus lineatus*, Rough Periwinkle *Littorina saxatilis*, the Common Perwinkle *L. littorea*, the Flat Perwinkle *L. obtusata*, and the Glass Prawn *Palaemon serratus.*

The Tyrella shore is predominantly a linear beach situated on the open coast and extending for several kilometers. The lower shore is composed of damp, fine sand, while the mid and upper shore area is dominated by medium, shelly sand. The intertidal is dominated by burrowing amphipods and polychaetes, particularly Lugworm *Arenicola marina.*

Tyrella and Minerstown is also important for Common Seal *Phoca vitulina.* The species uses the rocky outcrops in the lower littoral and rocks away from the shore as haul-out sites at low water. Peak monthly maximum counts from 2001 - 2010 have

shown that this area has a monthly maximum count of approximately 60 individuals, with pups being noted in all years. In addition, Grey Seal *Halichoerus grypus* occasionally haul out along the shore.

The area is also important for its sand dune vegetation. On the upper shore at Tyrella, locally-distributed communities of foredune vegetation occur, with typical pioneer species like Sea Sandwort *Honkenya peploides*, Sea Rocket *Cakile maritima* and Spear-leaved Orache *Atriplex prostrata*. The majority of the foredune development is associated with Sand Couch *Elytrigia juncea*. There is a limited white dune zone, dominated by either Marram *Ammophila arenaria* or Lyme-grass *Leymus arenarius*. These white dunes have a sparse herb flora typified by short-lived, ruderal herbs which take advantage of the periodically stable conditions among the developing dunes. Typical herbs include Sea Spurge *Euphorbia paralias*, Portland Spurge *Euphorbia portlandica*, Curled Dock *Rumex crispus* and Perennial Sow-thistle *Sonchus arvensis*.

The most extensive vegetation communities are associated with the zone of stable grey dune, which is covered by a complex mosaic of different vegetation communities, some of which are species-rich. Marram *Ammophila arenaria* remains one of the main species, but there are a number of other grasses, such as Red Fescue *Festuca rubra*, False Oat-grass *Arrhenatherum elatius* and Smooth Meadow-grass *Poa pratensis*. Herbs include Common Bird's-foot-trefoil *Lotus corniculatus*, Cat's-ear *Hypochaeris radicata*, Common Restharrow *Ononis repens*, Lady's Bedstraw *Galium verum*, Wild Thyme *Thymus polytrichus* and Wood Sage *Teucrium scorodonia*. Eyebright *Euphrasia officinalis* agg., Kidney Vetch *Anthyllis vulneraria*, Meadow Vetchling *Lathyrus pratensis* and Bulbous buttercup *Ranunculus bulbosus* occur less frequently. A number of orchid species are present, including Bee Orchid *Ophrys apifera* and Pyramidal Orchid *Anacamptis pyramidalis*.

The dunes at Tyrella are also notable for their dune slack vegetation. Species associated with this habitat include the grasses Red Fescue *Festuca rubra* and Yorkshire-fog *Holcus lanatus*, the sedges Glaucous Sedge *Carex flacca* and Carnation Sedge *Carex panicea* and the herbs Mouse-ear-hawkweed *Pilosella officinarum* and Selfheal *Prunella vulgaris*. Notable species associated with these damper hollows include Early Marsh-orchid *Dactylorhiza incarnata* ssp. *coccinea* and the Variegated Horsetail *Equisetum variegatum* which is local in distribution.

Patches of shingle vegetation are scattered along the shore, and include Yellow Horned-poppy *Glaucium flavum* and the scarce Oysterplant *Mertensia maritima*. The latter is particularly notable, as it is a northerly species in Britain and Ireland and occurs here at one of its most southerly locations.

The area provides feeding and roosting sites for a number of overwintering waders, including Oystercatcher *Haematopus ostralegus*, Redshank *Tringa totanus*, Curlew *Numenius arquata*, Ringed Plover *Charadrius hiaticula*, Lapwing *Vanellus vanellus*, Golden Plover *Pluvialis apricaria* and Turnstone *Arenaria interpres*.

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.

TYRELLA AND MINERSTOWN

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

A statement of the Department's views about the management of Tyrella and Minerstown 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 3 - 4 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

Intertidal Habitats – Rock and Intertidal Mud and Sand

Rocky shores are an important habitat for wildlife. The littoral zone is composed of a variety of different habitats and communities, including rock pools, bedrock ledges and platforms, gullies, crevices and boulder fields. A diverse range of seaweeds and marine animals are associated with these habitats and most are specially adapted to periods of emersion. The Department would encourage the maintenance and enhancement of intertidal rock, through the conservation of its associated native plants and animals.

Active management of rocky shores is usually minimal as these are naturally occurring habitats dominated by tidal processes and wave exposure. It is important that good water and sediment quality are maintained. The Department would seek to maintain the coastline in as natural a state as possible.

Direct damage to rocky habitats can be caused by activities such as dredging and construction. In addition, man-made structures may have an impact by altering the wave regime and may also restrict the sediment budget within the coastal system.

Mudflats and sandflats are an important habitat for wildlife. These littoral sediments support a wide variety of marine invertebrates that represent an important food source for many fish and bird species. They also support beds of seagrass and a rich algal and sponge flora which are sensitive to habitat disturbance and water and sediment quality.

The Department would encourage the maintenance and enhancement of the mudflats and sandflats, through the conservation of its associated native plants and animals.

Specific objectives for the intertidal habitats include:

Encourage sympathetic use to ensure that disturbance and physical damage to the intertidal habitats and communities are minimised.

Encourage the maintenance of good water quality through the control of pollution, as this may affect reef communities, particularly due to increased turbidity (which may reduce algal communities) or siltation (which may smother animal communities).

Encourage management which favours the natural processes of sediment movement.

Minimise the removal of species through unregulated bait digging, shellfish gathering and seaweed harvesting, which can lead to damage to, or a loss of, intertidal habitats.

Common Seal

Both Common Seal *Phoca vitulina* and Grey Seal *Halichoerus grypus* are found around the coastline of Northern Ireland. Haul-out areas are required for pupping during June and July (Common Seal) and September to November (Grey Seal). Such areas also serve as resting sites throughout the year, particularly during the respective moulting periods.

Sheltered reefs and rocks are the preferred haul-out areas, usually close to deep water and good feeding grounds. As a result of this, management should ensure that these areas are maintained and that access to them by seals is not restricted. Where seal haul-outs occur the Department would encourage the maintenance and conservation of the surrounding marine habitat to support the seal population.

Specific objectives for Common Seal include:

Encourage the effective management of activities which could cause disturbance, for example, through the provision of seal refuges, the adoption of good practice by different user-groups and through education.

Disturbance around known haul-out sites, especially during the pupping season (June to July for the Common Seal and September to November for the Grey Seal), should be minimised. Where necessary, access by walkers, shellfish gatherers and boats and other craft to the vicinity of haul-outs during the breeding, pupping and moulting season may need to be managed.

Maintain the current range of haul-out sites of Common Seals (and Grey Seals where applicable) through establishing a programme of management and monitoring.

Sand dunes

Sand dunes are an important habitat for wildlife. They develop where sand is blown landwards from the beach and is deposited above the high water mark. A process of succession takes place as vegetation colonises the bare sand, creating a diverse range of communities, each with their own characteristic species. The Department would encourage the maintenance and enhancement of the dunes, through the conservation of all stages in the succession and their associated native plants and animals.

Coastal processes are complex and the management of sand dunes should take into account the need to maintain or restore where necessary, the natural processes and dynamics of dune development and succession.

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

Grazing 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, other methods - such as cutting or mowing to create open areas and reduce the dominance of Bracken, coarse grasses and woody species - may be desirable.

Many of the vegetation types on sand dunes are fragile, and heavy disturbance can lead to loss of cover and soil erosion. However, where recreational and other pressures are not severe, the impact of activities such as light trampling can be beneficial. For example, tracks through dunes may open up areas where vegetation cover has become rank and provide small areas of bare sand, thus increasing the diversity of habitats available.

Specific objectives for sand dune include:

Encourage low intensity grazing to conserve and enhance the features of interest. The effects of non-domestic grazing animals, such as rabbits, should also be taken into account, as these can contribute greatly to the maintenance of a short, species-rich sward.

In general, the control of scrub and Bracken within sand dune communities can be achieved most effectively through the appropriate grazing regime. However where there has been a prolonged absence of grazing, additional scrub and Bracken control may be required using mechanical cutting and/or the careful application of herbicides, as agreed with the Department.

Maintain the diversity and quality of the sand dunes by ensuring that there is no application of fertiliser, slurry or herbicide.

Management of amenity beaches can affect the early stages of dune formation by removing the strandline that helps to trap blown sand and to develop new dune ridges. Where appropriate, the Department would encourage management practices which allow the development of a natural strandline.

Where recreational pressures are significant enough to result in the loss of vegetation cover and prevent recovery, the Department would encourage the restoration of the vegetation through the sensitive management of access.

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, such as Wireweed *Sargassum muticum*, Common Cord-grass *Spartina anglica* and Sea Buckthorn *Hippophae rhamnoides*.

Maintain the diversity and quality of associated habitats, such as shingle, saltmarsh and scrub through sensitive management. These adjoining habitats can often be very important for wildlife, including rare and specialised species.

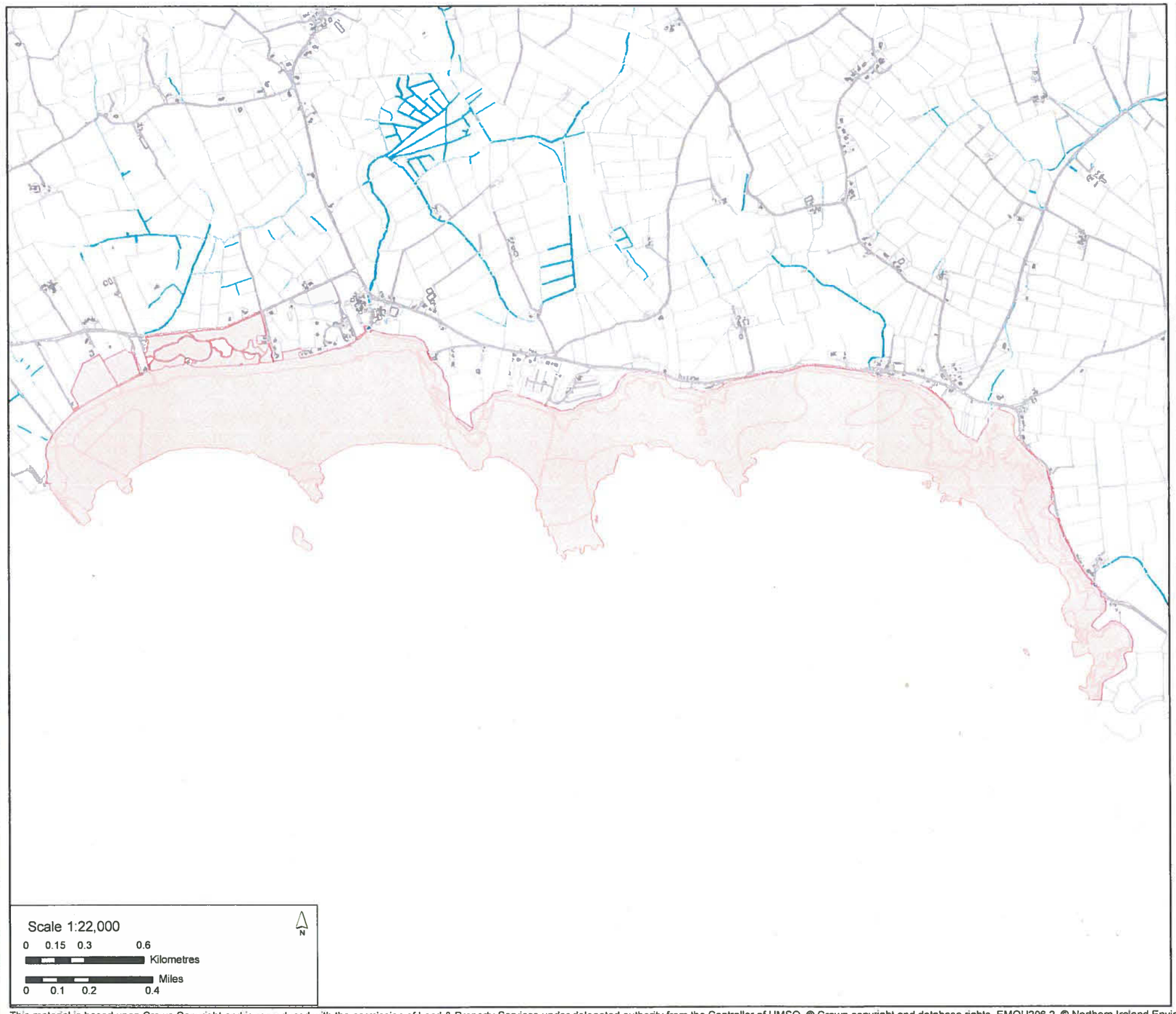
Sealed with the Official Seal of the
Department of the Environment
hereunto affixed is authenticated
by

G.R. Seymour.

G R Seymour
Senior Officer of the
Department of the Environment

Dated the 31st of MARCH 2011

TYRELLA AND MINERSTOWN ASSI



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TYRELLA AND MINERSTOWN
AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Declaration dated: 31st MARCH 2011

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

AREA OF SITE: 272.08 hectares

OS MAPS 1:50,000: Sheet No. 21
1:10,000: Sheet Nos. 241, 242, 256, 257

IRISH GRID REFERENCE: J 493 358

COUNCIL AREA: DOWN DISTRICT COUNCIL

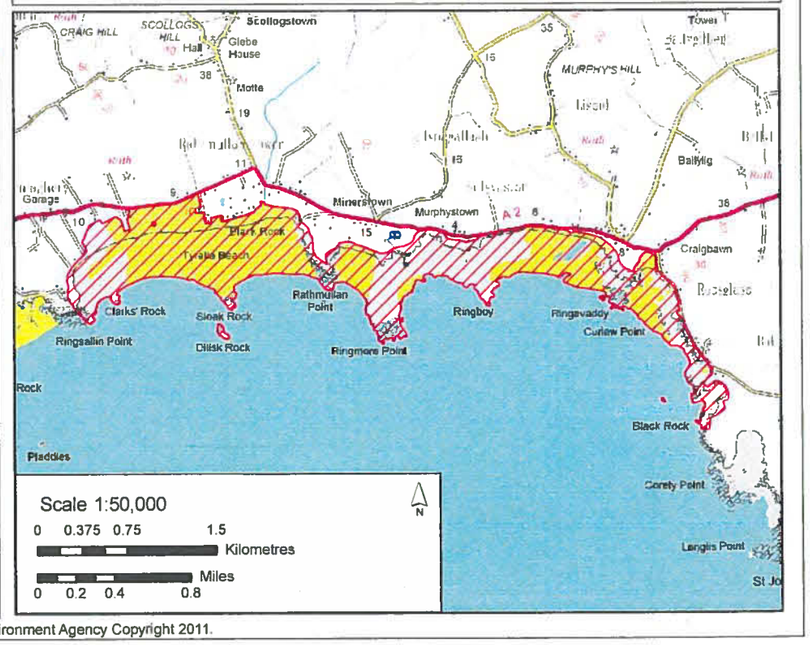
COUNTY: DOWN

G.R Seymour.

G R SEYMOUR
SENIOR OFFICER OF THE
DEPARTMENT OF THE ENVIRONMENT

An Agency within the Department of the Environment

Northern Ireland Environment Agency



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