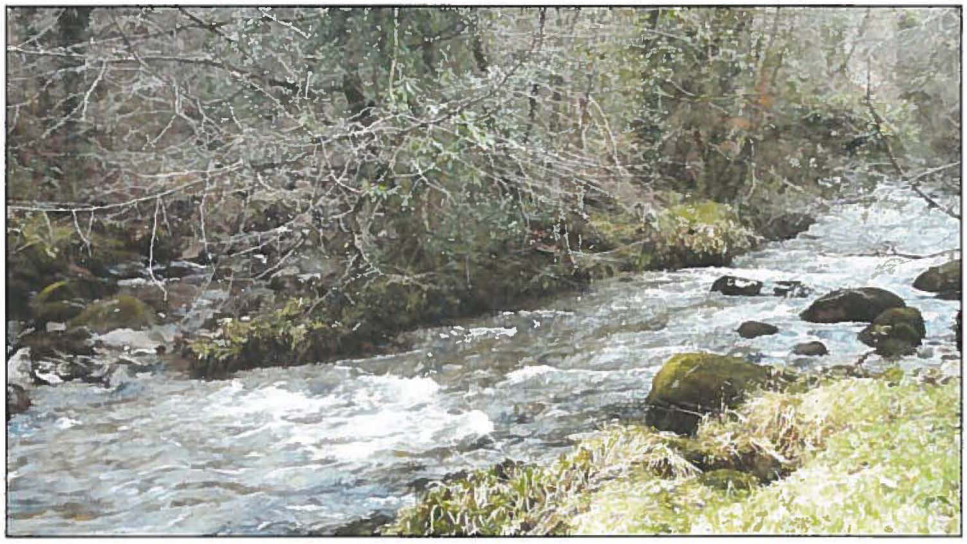
WHITE WATER RIVER

A SPECIAL PLACE...



White Water River ASSI

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.

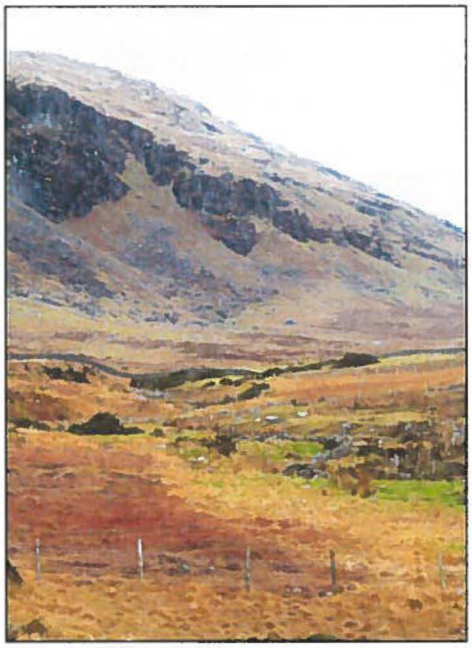
Rivers change as they flow downstream from the mountains to the sea. The river channel gets wider, the speed of the water varies and the river bed and banks change in shape. All these features affect the environmental conditions for plants and animals, so that each part of the river hosts its own distinctive wildlife community.

Mature River

The White Water River rises on the slopes of Slieve Muck and flows into Carlingford Lough near Greencastle. It is an outstanding example of an upland, base-poor river in Northern Ireland with very little human impact and in a highly natural state. It is a special place for both the naturalness of the river channel and for its physical diversity which is typical of unaltered upland rivers, and allows it to support a rich plant community. Adjoining stands of woodland enhance bank stability and provide food and shelter for associated animals.

The White Water River is generally an upland acid river for much of its length reflecting the general character of the catchment which comprises large areas of moorland and acid heath with underlying granite geology. The upstream stretches of the River are dominated by bryophytes and liverworts in the channel with common species including Yellow Fringe-moss, Notched Rustwort and Compressed Flapwort. In the lower reaches the river is less acid but more dynamic in character however, the channel is still dominated by bryophytes such as River Feather-moss and Drab Brook-moss, Alpine Water-moss and the liverwort Water Earwort.

In its mid reach the White Water River flows through the estate woodland of Mourne Park. Here the flow is a mixture of riffle, glide, pool and run where the channel has been modified by fishing weirs and chute, rapid and riffle along the more natural and unmodified reaches. The channel is rich in bryophyte cover in the more wooded, shaded stretches but is limited in the more open areas where Stream Water Crowfoot, Drab Brook-moss and Long-beaked Water Feather-moss dominate.



Mooreland and Acid Heath

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BIODIVERSITY

NIEA Northern Ireland Environment Agency
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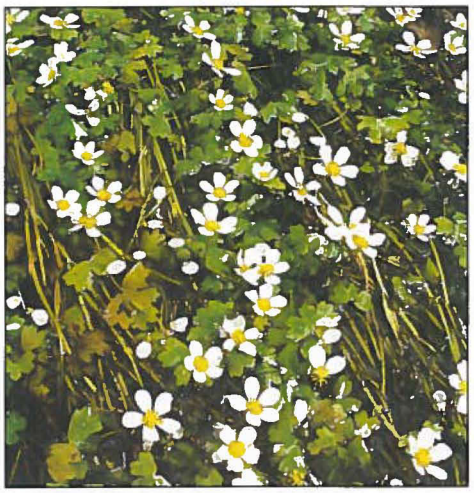

Stream Water Crowfoot

Downstream of Mourne Park the river is characterised by riffle and run sequences and a few deep pools. The banks are occasionally bordered by stands of semi-natural Alder woodland in low-lying wet hollows with more mature Oak, Ash and Hazel wood on the steep valley slopes when they run adjacent to the river. Stream Water Crowfoot and Water Feather-moss still dominate in these areas.

Otter

In the lower reaches of the river, the flow becomes slower and less dynamic and is characterised by run and glide with some extensive areas of riffle. The channel substrate is composed of small cobble, pebble and sand. Few aquatic plants occur in this section of the channel with the exception of Stream Water Crowfoot and Broad-leaved pondweed.

Dipper

The White Water River is also of importance for its associated fauna. Otter are widespread, while Dipper have also been recorded. The river has gravel based rapids in the upper reaches suitable for the spawning activity of Atlantic Salmon, Brown Trout and Sea Trout, with the latter being an important genetically distinct population within Northern Ireland. The deeper, lower estuarine regions play host to marine species such as Flounder and Bass. Other species inhabiting the system include the Minnow and the Three-spined Stickleback.

Salmon

Due to their complexity river habitats are fragile and can be quickly and easily damaged by human activity. Drainage works can alter the channel and the bed, making the river and its banks an unsuitable environment for many of its inhabitants. Pollution can have long term effects on animal and plant communities.

It is therefore vitally important to maintain our rivers in as natural a state as possible, in order to safeguard the wealth of wildlife, which depends on them. Northern Ireland Environment Agency aims to work with landowners to ensure that special rivers like the White Water River are protected for the future.

Wet Woodland

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT WHITE WATER RIVER, COUNTY DOWN. ARTICLE 28 OF THE ENVIRONMENT (NORTHERN IRELAND) ORDER 2002.

The Department of the Environment for Northern Ireland (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 'White Water 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.

The White Water River which has a catchment area of 4253.29ha, rises on the slopes of Slieve Muck and flows into Carlingford Lough near Greencastle. It is an outstanding example of an upland, oligotrophic (base-poor) river in Northern Ireland with very little human impact and in a highly natural state. It is of particular note for both the naturalness of the river channel, which exhibits all the physical attributes of in-channel features, flow and riverbed types typical of the unaltered upland rivers, and the richness of its associated plant community. Adjoining stands of woodland enhance bank stability and provide food and shelter for associated animals.

The White Water River is generally an upland acid river for much of its length and reflects the general character of the catchment which comprises large areas of blanket bog and acid heath with an underlying granite geology. However, as it flows down towards the sea there is a shift from ultra – oligotrophic to mesotrophic conditions as the water becomes less acidic and more nutrient enriched, which is reflected in the composition of the rivers vegetation.

The upstream stretches of the White Water River like other Mournes rivers is a typical fast-flowing ultra-oligotrophic type river. Under these ultra-acid conditions bryophytes and liverworts dominate the channel with common species including Yellow Fringe-moss *Racomitrium aciculare*, Notched Rustwort *Marsupella emarginata* and Compressed Flapwort *Nardia compressa*.

The gradient of the river increases further downstream and widens, becoming more dynamic in character and splits in several places producing numerous vegetated and unvegetated mid-channel bars and mature islands. The river is less acid but the channel is still dominated by bryophytes such as River Feather-moss *Brachythecium rivulare* and Alpine Drab Brook-moss *Hygrohypnum luridum*, Water-moss *Fontinalis squamosa* and the liverwort Water Earwort *Scapania undulata*, while the banks are more wooded.

In its mid reach the White Water River flows through the estate woodland of Mourne Park. The flow regime in this reach is characterised by a mixture of riffle, glide, pool and run where the channel has been modified by fishing weirs; and by chute, rapid and riffle along the more natural and unmodified reaches. The channel is rich in bryophyte cover in the more wooded, shaded stretches but is limited in the more open areas where Stream Water-crowfoot *Ranunculus penicillatus*, Alpine Water-moss *F. squamosa*, Drab Brook-moss *H. luridum* and Long-beaked Water Feather-moss *Rhynchostegium riparioides* dominate.

Downstream of Mourne Park the river is characterised by a riffle and run sequences and a few deep pools. The banks are composed predominantly of clay and the channel substrate is dominated by large cobble. The banks are occasionally bordered by stands of semi-natural woodland dominated by wet Alder *Alnus glutinosa* woodland in low-lying wet hollows of old river channels with more mature Oak *Quercus spp.*, Ash *Fraxinus excelsior* and Hazel *Corylus avellana* wood on the steep valley slopes when they run adjacent to the river. Aquatic vegetation cover in the channel continues to be comprised of beds of Stream Water-crowfoot *R. penicillatus* and Water Feather-moss *R. riparioides.*

In the lower reaches of the river, the flow becomes slower and less dynamic and is characterised by run and glide with some extensive areas of riffle. The channel substrate is composed of small cobble, pebble and sand. There are few macrophytes in the channel now with the exception of Stream Water-crowfoot *R. penicillatus* and Broad-leaved Pondweed *Potamogeton natans.*

The river becomes more brackish in character in its bottom stretch as it flows into Carlingford Lough at The Bents.

The White Water River is of importance for its associated fauna. Otter *Lutra lutra* are widespread, while Dipper *Cinclus cinclus* have also been recorded. Although not directly associated with the river two notable mollusks, the Hollowed Glass Snail *Zonitoides excavatus* and Ash-black Slug *Limax cinereonige,r* have been recorded in the rivers marginal woodland within Mourne Park.

The White Water River has gravel based rapids in the upper reaches suitable for the spawning activity of Atlantic Salmon *Salmo salar*, Brown Trout and Sea Trout *Salmo trutta,* with the latter being an important genetically distinct anadromous population. The deeper lower estuarine regions plays host to euryhaline marine species such as Flounder *Pleuronectes flesus* and Bass *Dicentrarchus labrax.* Other species inhabiting the system include the Minnow *Phoxinus phoxinus* and the 3-spined Stickleback *Gasterosteus aculeatus.* These species frequent deeper pools and slower flowing regions.

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, rock, 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. Any change in the annual pattern of application of manure, slurry, lime or artificial fertiliser.

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 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 (5) or (12), including the disposal of sheep-dip solution.

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 paragraph 3 above.

8. The release into the area of any plant or animal (other than in connection with normal grazing practice), except for the established release of Brown Trout *Salmo trutta* and Salmon *Salmo salar* that are native to the area. 'Plant' includes seed, fruit or spore. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates.

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 (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.

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 (as amended).

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, including water sports;

(iv) Exercising of animals.

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

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.

WHITE WATER RIVER

Views About Management

The Environment (Northern Ireland) Order 2002 Article 28(2)

A statement of the Department's views about the management of the White Water River 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 3-5 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

The Department would encourage the maintenance and enhancement of the ASSI and its associated habitats and species. Specific objectives include:

1. The river

Encourage the maintenance of varying flow rates and natural erosion and sedimentation processes by 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

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. To this end the Department will, in partnership with other statutory bodies, strive to improve water quality at both a local and catchment

wide scale through the implementation of national and international legislation.

3. Bankside Habitats

Encourage the conservation and enhancement of the rich and varied river and bankside wildlife habitats by careful bank use and maintenance. Marginal woodland is particularly important because it helps to stabilise the riverbank 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

Encourage the maintenance and enhancement of the wide variety of mammal, bird, fish and invertebrate species and their habitats which occur within the ASSI.

5. Fishing

The Department 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. The Department would encourage the extension of this practice.

7. Water Abstraction

The Department appreciate that water is an important natural renewable resource to be used in a sustainable manner that is sensitive to the special interest of the ASSI.

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

Helen Anderson

HELEN ANDERSON
Senior Officer of the
Department of the Environment

Dated the 30th of OCTOBER 2014

WHITE WATER RIVER ASSI

WHITE WATER RIVER
AREA OF SPECIAL SCIENTIFIC INTEREST

Map referred to in the Confirmation dated: 30th OCTOBER 2014

SITE BOUNDARY: The Area of Special Scientific Interest (ASSI) includes all the lands highlighted within the solid coloured lines. The banks of rivers and other water courses are liable to change naturally. Where the site boundary is the river-bank itself, and where this changes over time, the site boundary will vary in line with such changes.

AREA OF SITE: 62.43 Ha

OS MAPS 1:50,000: Sheet No. 29
1:10,000: Sheet Nos. 268 278 284

IRISH GRID REFERENCE: J 265 163

COUNCIL AREA: NEWRY AND MOURNE DISTRICT COUNCIL

COUNTY: DOWN

Helen Anderson

HELEN ANDERSON
SENIOR OFFICER OF THE
DEPARTMENT OF THE ENVIRONMENT

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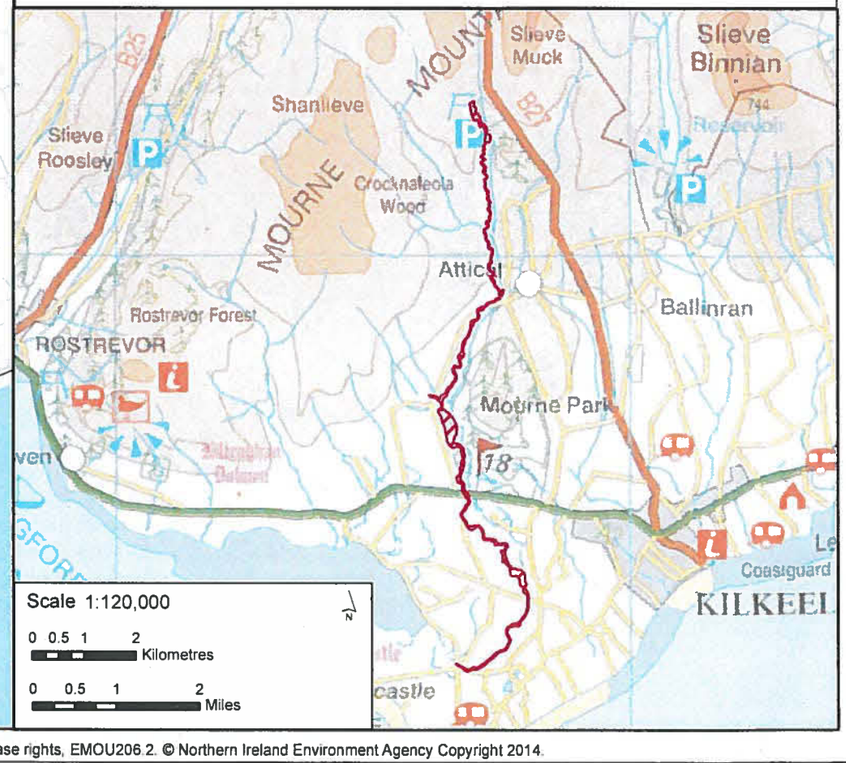
Scale 1:45,000

0 0.25 0.5 1 Kilometres

0 0.25 0.5 1 Miles



Scale 1:120,000

0 0.5 1 2 Kilometres

0 0.5 1 2 Miles