Strangford Lough

Management Scheme Public Information Booklet



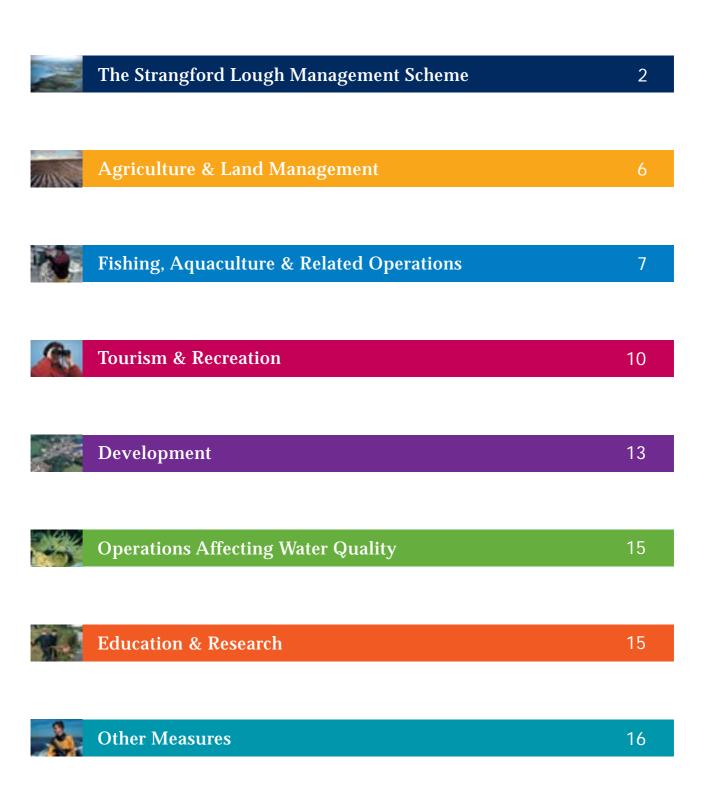








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WHAT IS THE MANAGEMENT SCHEME AND WHY IS IT NEEDED?

Strangford Lough is recognised world-wide for its remarkable wildlife and landscape. Its environment is also of immense value to the people who live and work here and who visit the Lough for recreation.

Strangford Lough is part of the Natura 2000 network of sites across Europe. It has been designated as a Special Protection Area and is a candidate Special Area of Conservation under the Birds and Habitats Directives respectively. These designations are very significant as they bring with them new statutory responsibilities for public bodies to safeguard the nature conservation interests.

The aim of these designations is to protect the internationally important features of the Lough. This does not mean that we cannot continue to use and enjoy the Lough's natural resources. The purpose of the management scheme is to highlight how current and future activities might affect the conservation features and how these activities might be managed to minimise their impact.

Specifically, the management scheme has been developed to:

- Identify the conservation features that have to be protected
- Set the standards to which the features should be maintained (conservation objectives)
- Clarify where statutory responsibilities lie for different aspects of the Lough
- Establish a programme to monitor wildlife
- List the types of activities and developments likely to affect the conservation features
- Identify where further information is needed and / or action is required to manage activities in consultation with local interests
- Develop co-ordination between bodies
- Promote better communication to the public



The full management scheme is available from the www.ehsni.gov.uk and www.strangfordlough.org websites. Copies may be viewed in local libraries and local council offices. The management scheme will be formally reviewed as required and there will be an ongoing appraisal of the associated action plan.

WHO IS RESPONSIBLE FOR THE LOUGH'S MANAGEMENT?

Conservation objectives have been identified by the Department of the Environment (DOE) and are at the core of the management scheme. Statutory authorities have a legal responsibility to ensure that these objectives are met. This primarily applies to Environment and Heritage Service (EHS) and Planning Service of the DOE, Fisheries Division of the Department of Agriculture and Rural Development (DARD), Ards Borough Council and Down District Council.

The National Trust has an important practical role in view of its conservation and wildlife monitoring work and its extensive ownership within the Lough. The Strangford Lough Management Committee (representing local user and specialist interests), is closely involved in the management scheme in an advisory capacity and has initiated many related projects.

We all have a part to play in this scheme, especially as voluntary codes and good practice can do so much to prevent damage to our environment. For example, by keeping dogs on leads and avoiding bird nesting and feeding areas, people can enjoy the Lough without compromising its incredibly rich and varied birdlife.



WHAT SPECIAL AREAS HAVE BEEN IDENTIFIED FOR PROTECTION?

The Special Area of Conservation (SAC) takes in all the sub-tidal area of the Lough and its foreshore and includes some small areas of terrestrial habitat. The Special Protection Area (SPA) covers a similar area but also includes the primarily freshwater area of the Quoile Pondage National Nature Reserve. (See map on Page 4).

Special Area of Conservation

- Strangford Lough is a large shallow inlet and bay with a huge variety of habitats and species
- Eelgrass, worms, shellfish and other creatures found in mudflats and sandflats are vitally important food for over-wintering birds. Eelgrass beds are also nurseries for young fish
- Rocky reefs provide excellent habitats for a range of marine life
- Horse mussel shells on the seabed also provide a reef structure, developed over thousands of years, that is the basis for some of the Lough's richest wildlife communities
- The Dorn, located in the south east of the Lough, is a sea water inlet with a rocky sill over which tides ebb and flow creating conditions that support unique wildlife
- Some of the most extensive salt marsh in Northern Ireland is found in places like the Comber Estuary or around Horse Island
- Extensive and unusual plant life grows at the edge of the shore, particularly in the south
- Vegetation of stony banks is also of great interest
- The Lough is an important pupping area for common seals

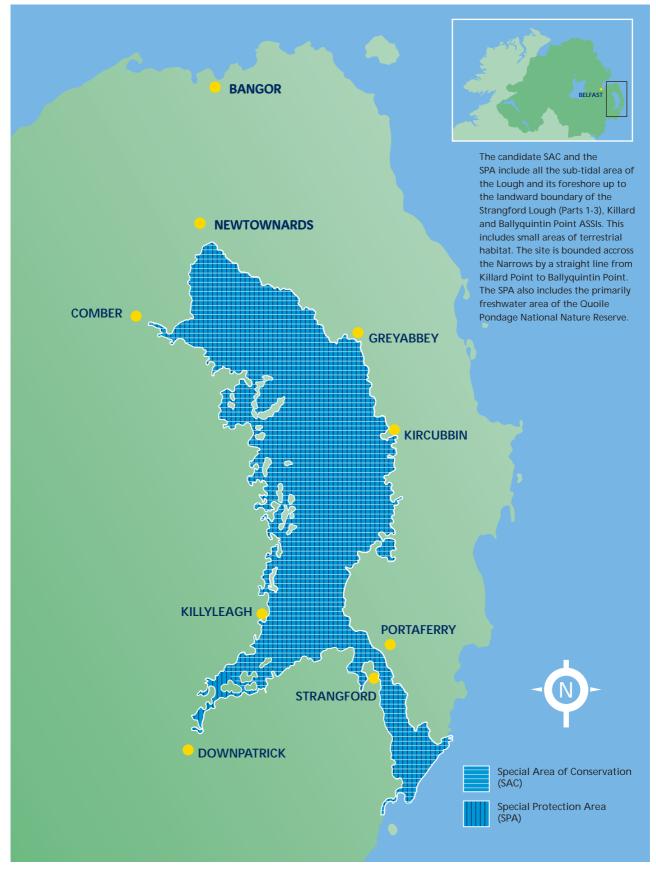
Special Protection Area







- The Lough provides plentiful food for spectacular numbers of over-wintering waterfowl, especially on the northern sandflats
- Three-quarters of the northern European population of pale-bellied Brent geese over-winter here
- Knot and redshank appear in internationally important numbers
- In summer, Sandwich, Common and Arctic terns arrive from Africa in search of nest sites and food such as sand eels



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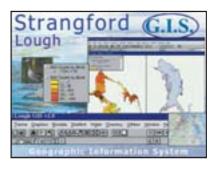


HOW WILL THE LOUGH BE MONITORED?

The wildlife of Strangford Lough has been observed and studied for many years and for a variety of reasons. This management scheme focuses much of the regular and ad hoc monitoring work and has identified some new areas of study. Monitoring will determine whether the conservation objectives are being achieved.

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- A joint wildlife monitoring and research programme will be agreed and implemented
- Proposals to research and monitor related human activities will be considered
- A shared data management system will be developed



WHAT KINDS OF THINGS MIGHT ADVERSELY AFFECT THE WILDLIFE?

The Lough and its wildlife may be affected by a variety of factors:

- Changes to the tidal flows, waves, temperature, turbidity, sediments
- Changes to the water chemistry, for example through pollution
- Changes to the contaminant levels in sediments for example through dredging the shore
- Physical disturbance or damage, for example through trawling or dredging the sea bed
- Collecting or removal of wildlife
- Noise and visual disturbance applies mostly to birds and seals
- The spread of alien species such as invasive plants
- The spread of disease and genetic pollution
- Changes in the food chain



HOW DOES THIS MANAGEMENT SCHEME AFFECT LOUGH USERS?



Many activities have the potential to affect wildlife adversely, but will not do so significantly if kept at appropriate and sustainable levels and in suitable locations.

Most of the actions to be taken under the management scheme involve keeping the current situation under review or working with people to develop measures such as zoning or voluntary codes of practice.

If voluntary measures prove inadequate then the need for additional measures such as byelaws will be considered. Should the introduction of new byelaws be necessary this would only follow public consultation.

Agriculture & Land Management

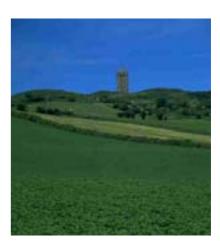


AGRICULTURE & LAND MANAGEMENT

Farmers and landowners have helped to shape Strangford Lough's landscape and habitats for centuries. Sheep or cattle grazing can provide suitable areas for nesting wildfowl and terns. Brent geese have grazed agricultural land when eelgrass is in short supply.

Some farming practices, however, can cause localised damage. Livestock on the shore may trample vegetation and saltmarsh and exacerbate erosion. Ploughing shore sand to clean the plough can damage eelgrass beds and animal life in the sand. Slurry or fertiliser spread on land can increase nutrients in watercourses running into the Lough. Herbicides and pesticides may also enter the water system through excessive use or through inappropriate disposal.

For the most part, conservation needs on farmland are being met by sympathetic management. In some cases this is supported by Area of Special Scientific Interest (ASSI) management agreements. Efforts will be made to liaise more closely with landowners to encourage them to adopt wildlife friendly farming practices.



- A strategy will be developed to establish and resource positive environmental management, such as enhancing island vegetation for breeding birds, or managing wetlands.
- ASSI legislation will be reviewed to encourage beneficial management and to ensure that EHS is able to deal with damage arising from the actions of third parties.



TRAWLING AND DREDGING

Trawling for queen scallops ("Queenies"), trawling for Dublin Bay prawns, and dredging for king scallops contributes significantly to the annual income of fishermen based in the area.

Following studies which raised concerns about the impact of fishing operations on the seabed, and in particular on horse mussel beds and their associated wildlife, the fishing industry agreed to the introduction of zoning and other regulations. These have been put in place under the Inshore Fishing (Prohibiting of Fishing and Fishing Methods) Regulations (NI) 1993 and include measures specific to Strangford Lough.

A recent amendment to Fisheries legislation has given the Department of Agriculture and Rural Development (DARD) powers to regulate fishing activity for environmental purposes.



ACTION

- The effects of commercial trawling and dredging on the seabed and on biodiversity within the Lough will continue to be monitored.
- Information on levels of commercial fishing activity in Strangford Lough will be collated.
- There will be ongoing assessment of the need to introduce appropriate fisheries conservation measures.

SHORE BASED SHELLFISH HARVESTING



Cockles, common mussels and winkles are collected on a small scale, by hand or using rakes.

Small-scale collection of shellfish for home consumption and some commercial harvesting are usually regarded as environmentally sustainable but large-scale harvesting could be detrimental.

Mechanical harvesting of cockles, for example, could cause severe physical damage to other fauna and flora (eelgrass in particular) that live in the mud and sandflats.

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A reduction in cockles reduces the food supply for birds such as oystercatchers, for which cockles are a major food source.

People harvesting shellfish on the shore may reduce the time birds spend feeding there and increase their energy requirements as they fly to other areas. However, it should be noted that harvesting in some other parts of the UK is thought to be sustainable.

- The powers of DARD have recently been extended into the intertidal area so that fishing activity on the shore can be regulated. It is proposed that mechanical harvesting in the intertidal area be banned - subject to public consultation. The practice of individuals collecting by hand for their own use will be protected.
- At current levels and locations, hand raking is thought to be sustainable. Any changes in this activity would need to be assessed.
- Strategic recommendations in DARD's Shellfish Management Plan will be taken forward as appropriate. These may, for example, include voluntary codes.

Fishing & Aquaculture and related operations



POTTING & DIVING

Potting for Dublin Bay prawns, shore crabs, velvet swimming crabs, Buckie whelks, long clawed squat lobsters, lobsters and brown crabs takes place mainly in the Narrows and the periphery of the Lough. Divers take some king scallops for home consumption and on a small-scale commercial basis. Commercial collection by divers is covered under the fishing regulations.

ACTION

• Ways to achieve sustainability will be sought, working closely with fishermen.

Already, pot fishermen 'V-notch' female lobsters carrying eggs. These marked lobsters are not fished, so helping to conserve stocks. A decrease in the catch of velvet swimming crabs has prompted fishermen to request the introduction of a voluntary code.

The Northern Ireland Federation of Sub-aqua Clubs has produced a voluntary code of practice and this will continue to be promoted.



SEAWEEED HARVESTING



Traditionally, brown seaweeds (drift wrack and kelp) have been collected and used on the land as fertiliser. Knotted wrack was also used in glass-making.

The edible algae, dulse, is still cut from kelp,

on which it grows, particularly in the Narrows. ASSI consent is required to exercise the right attached to some properties to gather seaweed. Extensive collection of seaweed would be likely to have far reaching effects.

ACTION

• At present levels seaweed gathering is not seen as a major threat to conservation interests. This situation will be reviewed from time to time.



BAIT COLLECTION

Digging for lugworm and ragworm takes place mainly at the northern end of the Lough. Small-scale bait digging by anglers for individual use may be insignificant in its effect in many situations but if undertaken in sensitive habitats, at certain times of the year or on a commercial scale, it may be incompatible with nature conservation. It may damage eelgrass beds and large numbers of bait diggers on the shore would be likely to disturb waterfowl. Raking or digging for burrowing invertebrates buries oxygen-rich surface sediments often killing the animals they contain.



ACTION

 At present levels and locations bait collection is not seen as a major problem but it will be kept under review.

AQUACULTURE AND RANCHING



Interest in cultivating oysters, mussels, clams and scallops has grown rapidly in Strangford Lough in recent years. Oyster farming is the most economically important fishery in the Lough.

Shellfish cultivation is generally thought to have a relatively low negative impact on the environment. A high standard of water quality is required and no chemicals or antibiotics are used. Regulation of shellfish cultivation ensures that the risk of potentially harmful effects are kept to a minimum. These include loss or modification of habitat, disruption of sediment movement, disturbing wildlife, especially birds and pupping seals and the potential for introduced species of commercial shellfish and accidentally introduced species to establish in the wild.

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The implications of new cultivation methods, the species farmed and the sources of stock must be assessed on a continuing basis. The proximity of farms to each other and stocking density may have impacts that will only come to light over a number of years.

Caged fin-fish farming is presently considered to be inappropriate for Strangford Lough for environmental reasons.

- The individual and cumulative effects of shellfish farms on the wildlife of the Lough will be closely monitored
- The need to amend legislation so that seaweed cultivation may be licensed and regulated will be considered



Tourism and Recreation

A growth in tourism has brought employment and prosperity to some rural areas and presents new and diverse business opportunities for local communities. The trend is towards activity and special interest holidays. Birdwatching and seal watching are growing attractions.

Strangford Lough's environmental designations can be used to promote the Lough's wildlife and high quality environment to visitors.



INFORMAL RECREATION

Increasing pressure for public recreational access to the water and the surrounding countryside has to be balanced with the need to sustain the environment and the fabric of local communities.

Walkers need not cause significant problems for conservation, provided they are appropriately managed. They can, however, disturb birdlife and may trample vegetation. Dogs may disturb birds, especially on the upper shore at low tides and at nesting islands; and at certain periods of the year this may be critical to the bird's feeding cycle. Efforts to maintain beaches for recreation may include the removal of drift seaweed along with litter. Seaweed is an important component of the marine ecosystem and in most instances is better left in place unless there are compelling reasons for its removal. Proposals to create or extend sandy beaches for bathing reduce natural foreshore and can be counterproductive if they fail to take account of the local sediment regime.

Amenities such as promenades and car parks have to be carefully planned to meet people's needs and those of the environment.



Tourism and Recreation

WATER CRAFT



Sailing and boating clubs promote the sensitive use of the Lough to their members and are often the first to report incidents of pollution or damage. However, boating may cause some physical disturbance to the seabed and shore, particularly at moorings and where slipways and jetties are built. Water quality may decrease at anchorages and harbours.

Water craft in general provide access to islands and bird breeding areas which would otherwise be undisturbed.

Boating may also cause noise and general disturbance to wildlife, particularly to breeding or over-wintering birds. Fast powered craft including jet-skis tend to be the worst in this regard.

Voluntary speed restrictions to improve safety near mooring areas are in place with speed limit marks maintained by the local councils.

Windsurfing during the winter months may conflict with wildlife in refuges.

DIVING

Strangford Lough is one of the principal areas in Northern Ireland for dive training, wreck exploration and marine life observation. Such activity rarely causes conflict with conservation interests. However, the over-collection of marine life could damage the populations of certain species. Fisheries regulations apply to divers and the sale of the edible sea urchin is banned under the Wildlife Order. A voluntary code of practice has been established by the Northern Ireland Federation of Sub-Aqua Clubs, working with the Strangford Lough Management Committee.



HORSE RIDING

Firm beaches, particularly those at Newtownards, Mount Stewart and Ballyhornan, provide uninterrupted gallops for exercising horses.

Winter wildlife refuges and areas supporting eelgrass are the areas most sensitive to horse riding. Although there are few significant problems at current levels, the location and intensity of this activity need to be considered.



ANGLING

Some angling takes place and local boats may be chartered. At present levels it is not a major issue in relation to the conservation interests. However, lost or discarded tackle can pose a threat to wildlife, particularly to diving birds which can become entangled and drown. As with other kinds of water based recreation, there is the potential to disturb wildlife.



WILDFOWLING

The wildfowling clubs around Strangford Lough co-ordinate their activities through the Joint Council of Strangford Lough Wildfowling Associations. Wildfowling on the foreshore and on adjacent lands owned or controlled by the National Trust is subject to controls under its Wildlife Scheme. Mallard is the main quarry species, followed by teal.

Wildfowling can cause disturbance to over-

wintering birds. Therefore a system of refuges has been established where wildfowling is either banned or restricted to certain times of year and where efforts are being made to minimise other forms of disturbance.







AIRCRAFT

Newtownards Airfield lies adjacent to Strangford Lough. Light aircraft, gliders and small helicopters use the airfield, mostly for recreation. It would appear that birds generally become accustomed to the normal movements of light aircraft, though some low flying aircraft, such as microlites and helicopters, may cause disturbance to flocks of birds.

WILDLIFE WATCHING AND SIGHTSEEING BOAT TOURS

The opportunity to observe wildlife is one of the benefits of protecting Strangford Lough. However, some enthusiasts fail to consider either owners' property rights or the welfare of the wildlife, which may be disturbed or damaged.

OFF-THE-ROAD VEHICLES

The use of off-the-road vehicles for recreation on the foreshore is inappropriate and will continue to be discouraged. The limited use of specialised vehicles may be acceptable for monitoring purposes.

ACTION FOR RECREATION AND TOURISM

- Proposals for further research into the interactions between recreational use of the Lough and the conservation features will be taken forward.
- A strategy for managing access to the shore and the water will be developed.
- Wildfowling will continue to be managed and regulated under the current system.
- Legislation on the use of lead shot in environmentally sensitive wetlands will be considered.
- Advice to aircraft users on how to minimise wildlife disturbance will be provided.

Development

HOUSING AND INDUSTRIAL DEVELOPMENT

Pressure for development around the Lough is growing. Development close to the shore may have adverse effects on areas of saltmarsh and other habitats or lead to disturbance of feeding and nesting birds. The cumulative effect could be significant. Indirect impacts include the increased load on sewage treatment plants or additional septic tanks, the effects of storm water drainage and the knock on demand for improved roads and resulting increases in traffic.

Housing by the shore may also create future demand for sea defences and boat slips.



COASTAL ENGINEERING



Much of the larger scale sea defences are located at the northern end of the Lough. Those at Newtownards have recently been repaired and improved and a related environmental monitoring programme established.

Rock armouring has been favoured over sea walls to protect roads against erosion, as it helps to dissipate wave energy with less drawdown of sediment. However, it is rarely aesthetically pleasing and tends to encroach onto the shore. Some landowners have attempted to prevent erosion by stacking shore rocks and boulders along their field boundaries. Coastal engineering works have affected a number of shallow bays, saltmarshes and areas of tidal flat around the Lough. Causeways, boat slips and other restrictions have modified current and tidal flow patterns and, in turn, affected sediment transport patterns. In some cases this has resulted in the incidental creation of new habitat including saltmarsh, brackish ponds and wetlands.

The effect of rising sea levels and changing weather patterns may create a demand for additional flood defences.

BOAT SLIPS AND WATERSPORT INFRASTRUCTURE

There are several examples of areas where boat slip density has had a considerable impact on the intertidal zone. New structures in an area already bounded by development have less impact than in an area outside existing development limits.

Planning permission is required for new structures and major proposals such as a marina development, where dredging may be required, would normally require an Environmental Impact Assessment.



SAND AND GRAVEL EXTRACTION

Traditional rights to remove sand, gravel and shingle from the shores are attached to the folios of some land-holdings. Formerly, these materials were extracted by shovel and horse-drawn cart. Nowadays tractors, trailers and earth-moving machinery are more likely to be used. The removal of intertidal sediments increases the risk of erosion by removing some of the wave-absorbing materials and altering the beach profile. The exercise of extraction rights is not, however, currently a major issue within Strangford Lough.

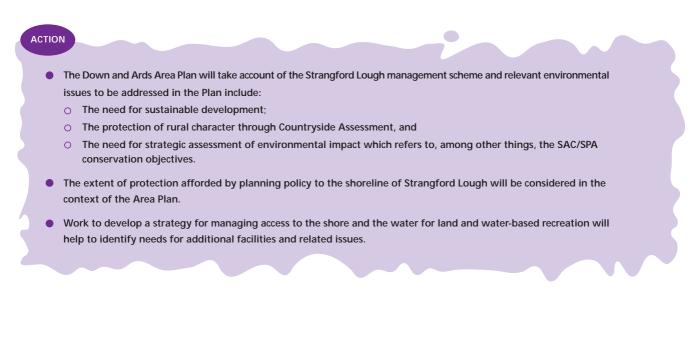




TIPPING

Tipping can damage areas of shore and seeping chemicals may introduce pollutants to the Lough.

ACTION FOR DEVELOPMENT





Operations Affecting Water Quality

Water quality in the Lough is generally good, although there are locally significant problems.

Pollutants enter the Lough mainly from sewage out-falls, watercourses (carrying, for example, slurry, pesticides and fertiliser run-off), water craft and associated facilities (for example, cleaning chemicals) and the open sea. Agricultural run-off and chemicals seeping from fly-tipping may enter the Lough directly.

High nutrient levels can adversely affect the ecological balance. Some forms of wildlife thrive in nutrient enriched areas, but some of these, for example green algae, can smother other species. Increases in suspended organic or inorganic material reduces light levels in the water. This, along with changes in the sediments, may be affecting the growth of eelgrass.

The potential exists for any spillage from shipping in the Irish Sea to enter the Lough system.

Contaminants entering the Lough are being monitored and, where levels are likely to have adverse effects, additional treatment and controls will be considered.

ACTION

- Water quality monitoring programmes will be reviewed to ensure compliance with the conservation objectives
- Pollution incident plans for Strangford Lough will be strengthened
- Plans will be put in place to maintain water quality in areas designated under the Shellfish Waters Directive
- The effect on water quality of all future development proposals will be considered and Environmental Impact Assessment (EIA) undertaken if required
- Beach clean-ups and national campaigns regarding marine litter will be promoted

Education & Research

Strangford Lough is a natural laboratory for marine biological and oceanographic research. It is also much used as an outdoor classroom and for field studies at all levels of education. In general these activities have little lasting impact on the Lough's ecology. There is, however, a risk of disturbance and damage from overuse of sensitive areas and local depletion of species at favourite collection sites.

ACTION

- Codes of practice will be improved and promoted to educational parties using the Lough.
- The setting up of a register to record how sites are being used for education will be explored.



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Other Measures

The management scheme addresses some of the recommendations set out in the *Strangford Lough Sustainable Development Strategy*. It acknowledges issues likely to arise from the *Shaping our Future Strategic Development Framework for Northern Ireland* and the *Down and Ards Area Plan*.

The management scheme complements existing management plans for Areas of Special Scientific Interest, the Marine Nature Reserve, National Nature Reserves and the National Trust's Strangford Lough Wildlife Scheme. It also takes into account the complex system of rights and responsibilities on and around the Lough arising from the system of ownership, jurisdiction and common law.

PLANS & PROJECTS

Certain public bodies, known as competent authorities, have specific statutory functions to determine applications for consents, licences and permissions. For Natura 2000 sites these are known as "plans and projects." If the effect of a plan or project is likely to be significant then an appropriate assessment is required. The advice of EHS must be taken into account during this process.

Competent authorities must also review, subject to certain limitations, any existing consents, licences or permissions that are likely to have a significant effect on the site.

OPERATIONAL MANAGEMENT

On-site conservation management on Strangford Lough is mostly carried out by EHS at its nature reserves and by the National Trust. The Trust manages over 6,000 hectares of foreshore and seabed as well as some 50 islands. Conservation work includes cutting unwanted vegetation, controlling pests and predators and limiting disturbance. There is also input from local councils, voluntary organisations and individual volunteers. Many bodies promote and organise litter clean-ups.

Introduced species can invade natural habitats and dramatically affect their communities. EHS, Ards Borough Council and the National Trust will continue to control the spread of cord grass, *Spartina*, by spraying with herbicide and using other suitable methods. EHS will also continue to monitor the spread of the invasive seaweed, *Sargassum*, in the Lough.

Surveys of overwintering birds and summer counts of nesting waterfowl and seabirds on islands are carried out annually by a consortium including EHS, the National Trust, the Wildfowl and Wetlands Trust, the British Trust for Ornithology and the Royal Society for the Protection of Birds.

DARD regulates the fishery, monitors its impact on the environment and carries out related seabed surveys.

WARDENING

Wardens carry out on-site conservation work and have an important role in communicating with Lough users and landowners. They also help monitor and manage activities. There is strong support for developing a collaborative wardening partnership for the Lough.

COMMUNICATION

The Strangford Lough Information Network was initiated by SLMC and will continue to be supported under the management scheme. The Network's activities include: a booklet on places to enjoy the Lough's shores and its wildlife; posters for schools; the Strangford Lough website, and on-site interpretation signs with information and guidelines.









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Acknowledgements

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For further information contact Environment and Heritage Service, Commonwealth House, 35 Castle Street, Belfast BT1 1GU or the Strangford Lough Office, 13 The Strand, Portaferry BT22 1PF.



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