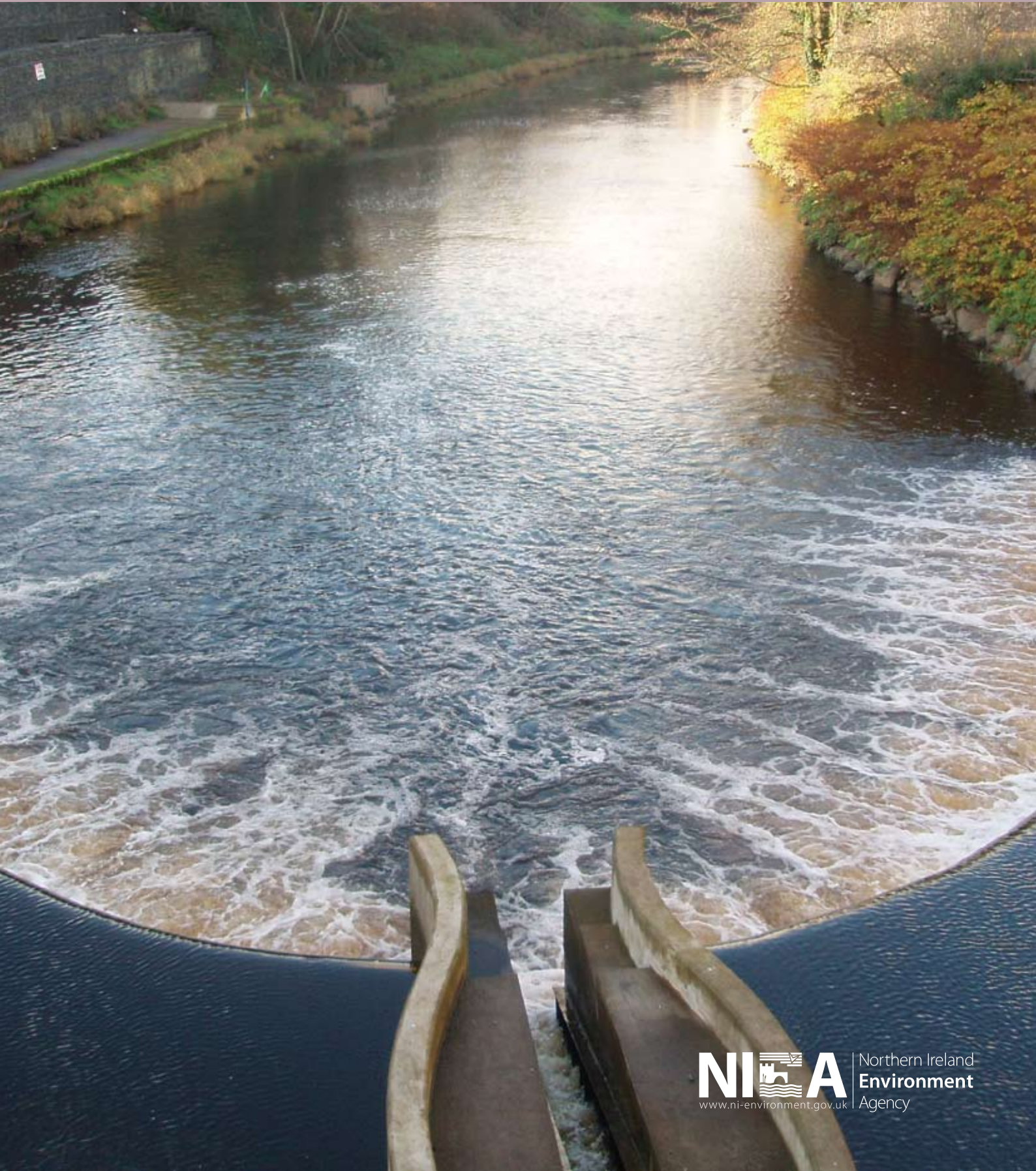


Northern Ireland
Environment Agency

STRULE

Local Management Area Information Leaflet



Information Leaflet - Strule Local Management Area

The River Basin Management Plans will be implemented through Local Management Areas (LMAs) during the 2010 to 2015 planning cycle. This information leaflet is one of a series, for each of the 26 LMAs, across the Neagh Bann, North Western and North Eastern Districts. The leaflet includes details of the characteristics and quality of the water environment within the area and specific local measures identified to improve the water environment.

The leaflet will inform work with stakeholders, through **Catchment Stakeholder Groups**, to develop focused implementation plans for each LMA in the North Western District. These LMA Plans will be implemented on a three-year rolling programme within the North Western District as set out below:

- Lower Lough Erne, Owenkilwee and Burn Dennet & Foyle in 2010;
- Upper Lough Erne, Derg & Mourne and Roe in 2011;
- Lough Melvin and Arney, Strule and Faughan in 2012.

Introduction

Strule LMA is part of the North Western River Basin District and covers an area of approximately 869 km². There are several major rivers in this LMA – River Strule, Camowen, Owenreagh, Quiggery and the Fairy Water. These rivers are of international importance for Atlantic Salmon. Other important fish species present within the LMA include Trout (Sea trout and resident Brown Trout), Sea Lamprey, River/Brook Lamprey, European Eel, Pike and Perch.

Omagh is the largest town but there are numerous smaller towns and villages scattered throughout the area – Fintona, Dromore, Carrickmore and Beragh. The main land area usage is improved grassland. The area supports a wide range of natural habitats several of which are protected. In the North West the Fairy Water Bogs are a good representative example of lowland raised bog and comprises one of the largest areas of intact active bogs in Northern Ireland.

The north east of the LMA is part of the Sperrin Area of Outstanding Natural Beauty. The area also supports a wide range of recreational activities including walking, angling, cycling and historical days out.

The quality of water bodies in Strule LMA

Our understanding of the state of Northern Ireland’s water environment and Strule LMA has developed as we have adapted to the requirements of the Water Framework Directive. Now, when assessing water quality, we consider both ecological and chemical quality, as well as the pressures that can affect these factors.

Some water bodies have been changed to such a degree that they can no longer be restored to their original condition without compromising their current use. For example, some have been deepened to allow for navigation, others have flood defences or have been dammed to provide a source of drinking water. These are called Heavily Modified or Artificial water bodies and are required to meet Good Ecological Potential (GEP) rather than good status.

There are four Heavily Modified Water Bodies in Strule LMA. These are Black Water, Coolnagreana Burn, Camowen River and Strule River. Strule River has been classified due to Flood Risk Management.

What is the current status of surface waters in Strule LMA?

75% of surface water bodies in Strule LMA have been classified as less than good status. Many rivers failed to achieve good status due to impacts on invertebrate, macrophyte and diatom communities and low levels of dissolved oxygen.

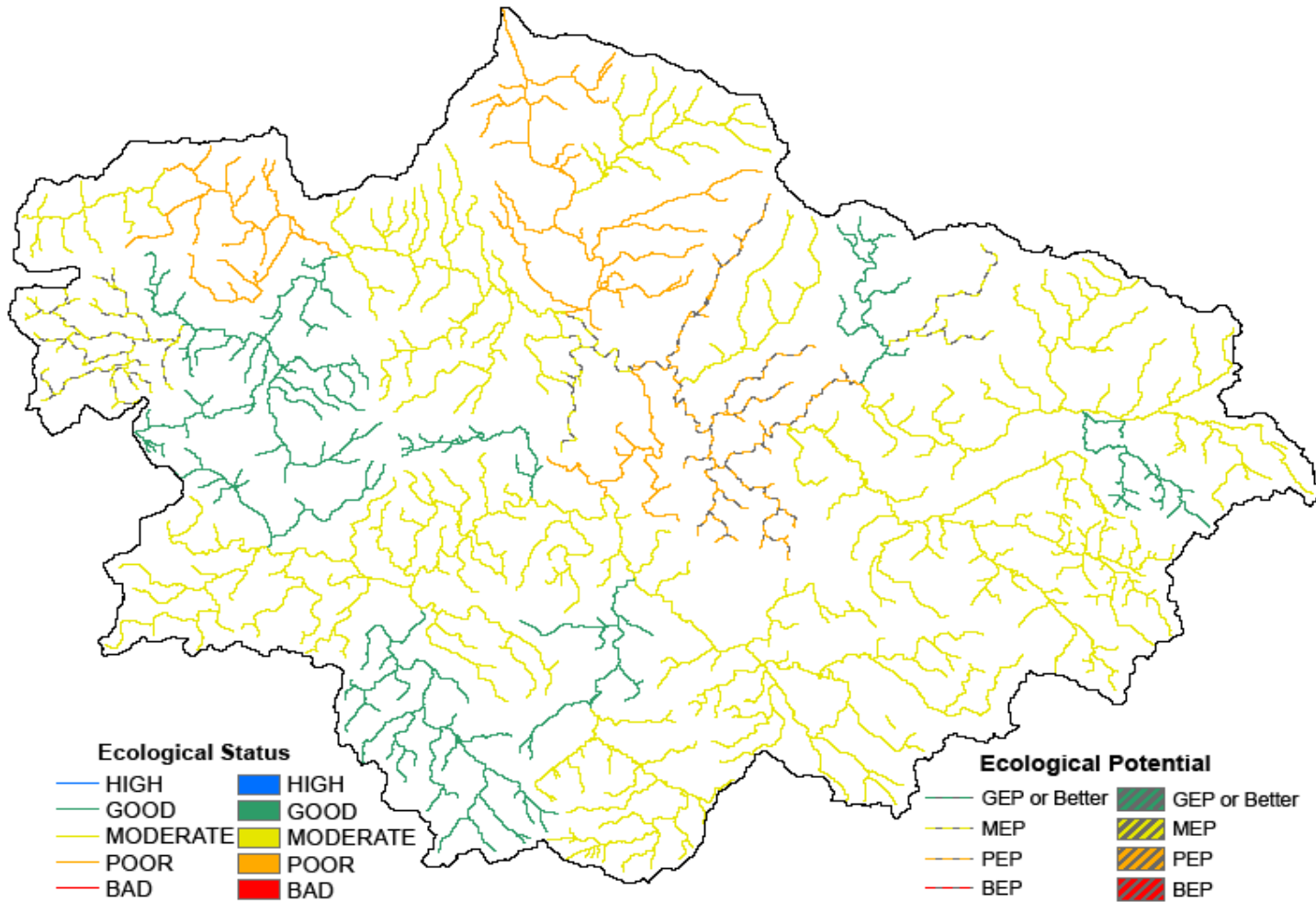
Table 1: Status of surface waters in Strule LMA

Water body type	High	Good	Moderate	Poor	Bad	GEP	MEP	PEP	BEP
River	0	10	23	3	0	0	3	1	0
%	0	25	57.5	7.5	0	0	7.5	2.5	0
Lake	0	0	0	0	0	0	0	0	0
%	0	0	0	0	0	0	0	0	0
Total Surface Waters	0	10	23	3	0	0	3	1	0
%	0	25	57.5	7.5	0	0	7.5	2.5	0

Groundwaters (underground water) interact with the surface waters around them, thus the quality and quantity of an area’s groundwater can affect the surface waters.

All of the groundwater bodies in Strule LMA are achieving good status.

Overall status of water bodies in Strule LMA



Protected areas in Strule LMA

The LMA supports important habitats and wildlife. These areas have been designated under European Directives and require special protection. The protected areas are summarised in the following table.

Table 2: Protected areas in Strule LMA

Protected Area Type	Location
<p>Waters used for the abstraction of drinking water (drinking water protected areas)</p>	<p>There are 5 drinking water protected areas.</p> <p>There are groundwater protected areas.</p>
<p>Areas designed to protect economically significant aquatic species</p> <p>Freshwater Fish Directive (78/659/EEC)</p> <p>Shellfish Waters Directive (79/923/EC)</p>	<p>There are 298 km of rivers identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are no designated shellfish waters.</p>
<p>Bathing Waters</p> <p>These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)</p>	<p>There are no identified bathing waters.</p>
<p>Nutrient Sensitive Areas</p> <p>Areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC) and the Nitrates Directive (91/676/EEC)</p>	<p>There is 1 Urban Waste Water Treatment Directive sensitive area; River Foyle.</p> <p>A total territory approach has been adopted in Northern Ireland for the Nitrates Directive.</p>
<p>Areas designated for the protection of habitats or species (Natura 2000 sites)</p> <p>These are areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection.</p> <p>Habitats Directive (92/43/EEC)</p> <p>Birds Directive (79/409/EEC)</p>	<p>There are 5 water dependent Special Areas of Conservation; Cranny Bogs, Deroran Bog, Fairywater Bog, Tonnagh Beg Bog and Tully Bogs.</p> <p>There are no water dependent Special Protection Areas.</p>

Why are some waters not reaching good status?

There are a number of pressures that may prevent some waters reaching good quality. The main ones are considered to be:

- **Abstraction and flow regulation**
- **Diffuse and point source pollution**
- **Changes to morphology (physical habitat)**
- **Invasive alien species**

Four water bodies in the area were identified as being impacted by **abstraction and flow regulation**. The rivers affected were: Drumnakilly Burn, Glenscollip Burn, Black Water and Coolnagreana Burn. Two of these have been classified as heavily modified – Black Water and Coolnagreana Burn.

A number of biological and chemical water quality elements used in classification can be affected by both **diffuse and point source pollution**.

Table 3: Water bodies not reaching good status due to diffuse and point source pollution

Classification element affected*	Number of water bodies showing impacts
	River
Macrophytes	13
Diatoms	14
Phytoplankton	N/A
Macroalgae	N/A
Angiosperms	N/A
Invertebrates	9
Fish	0
DIN	N/A
Phosphorous	0
Dissolved Oxygen	7
Specific Pollutants/Priority Substances	4

*More than one element may be affected in each individual water body.

In this LMA the main impacts in the rivers were observed in macrophyte and diatom communities which are associated with nutrient enrichment. The rivers that were affected were: Owenreagh, Owenreagh river tributary, Drumragh, Strule, Cappagh Burn, Camowen, Cloghfin, Glashagh, Fairywater, Eskragh, Granagh Burn, Quiggery and Routing Burn.

Impacts were also observed in invertebrate communities and dissolved oxygen levels. These elements are associated with organic enrichment. The rivers affected were: Owenreagh, Owenreagh river tributary, Fairy water, Camowen, Eskragh Water and Quiggery.

In four rivers elevated levels of Specific Pollutants/Priority Substances (specifically ammonia) were observed. The main rivers affected were: Eskragh Waters, Glenscollip Burn and Routing Burn.

Eighteen water bodies were identified as being affected by **changes to morphology (physical habitat)**. The main rivers affected were: Black Water, Drumquin river tributary, Fairy Water, Drumnakilly Burn, Granagh Burn, Camowen, Cloghfin, Glashagh Burn, Glenscollip, Owenreagh, Owenreagh river tributary, Quiggery, Altanagh Burn and Routing Burn. The impact on Routing Burn was due to historical engineering.

In some rivers the changes to the morphology did not result in a downgrading of the overall status. We will continue to monitor these rivers for any further changes.

The water environment in Northern Ireland has been impacted by the introduction of **invasive alien species**. Species which have already become established in this area include:

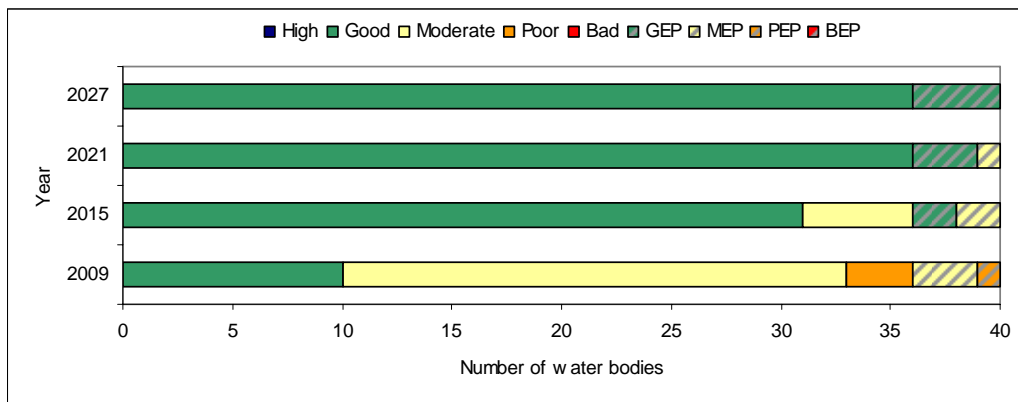
- Himalayan Balsam (*Impatiens glandulifera*)

What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown below. For our surface waters we aim to achieve good status or better in 77.5% and GEP (for Heavily Modified Water Bodies) in 5% of our surface waters by 2015.

We also aim to maintain good status in 100% of our groundwaters.

Current status and proposed objectives for surface waters in Strule LMA



How are we going to maintain and improve the water environment in Strule LMA?

There are a number of measures which will be implemented in Strule LMA in order to maintain and improve the water environment.

The programme of measures described in the North Western River Basin Management Plan has been categorised into two types of measures: **existing and planned** and **supplementary**. Existing and planned measures aim to ensure that existing water uses are appropriately managed and that the water environment remains at good status.

Existing and planned measures include those which have been put in place to meet legal requirements. Those which apply in this LMA include:

- The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC);
- The Environmental Impact Assessment Directive (85/337/EEC);
- The Urban Waste-water Treatment Directive (91/271/EEC);
- The Plant Protection Products Directive (91/414/EEC);
- The Nitrates Directive (91/676/EEC);
- The Habitats Directive (92/43/EEC)); and
- The Integrated Pollution Prevention Control Directive (96/61/EC).

A number of **other existing and planned measures** apply in this LMA:

- Cost recovery for water use and promotion of efficient and sustainable water use;
- Protection of drinking water sources;
- Abstraction and Impoundment Control;
- Point source and diffuse source discharge control;
- Controls on physical modifications to surface waters;
- Prevention or reduction of the impact of accidental pollution incidents;
- Authorisation of discharges to groundwater;
- Priority substances control; and
- Controls on other activities impacting on water status;

What measures are agreed for water dependent Natura 2000 sites in unfavourable condition?

Special Areas of Conservation (Habitats Directive) and **Special Protection Areas** (Birds Directive) are assessed as being in favourable or unfavourable condition. These areas have been examined to determine if **water dependent features** are present.

Features in Tonnagh Beg Bog Special Area of Conservation are in unfavourable condition, but they are recovering with current measures. Fairy Water Bogs, Cranny Bogs, Tully Bog and Deroran Bog Special Areas of Conservation in the Strule LMA have water dependent features which are in unfavourable condition.

Table 4: Measures for water dependent features of Special Areas of Conservation

Name	Current condition assessment of water dependent features	Measures in place
Fairy Water Bogs	Active raised bogs unfavourable due to Burning and Water management (including drainage, dredging or alterations to the water table. Could be too much water or too little)	Investigation ongoing
Cranny Bogs	Active raised bogs unfavourable due to Water management (including drainage, dredging or alterations to the water table. Could be too much water or too little)	Investigation ongoing
Tully Bog	Active raised bogs unfavourable due to invasive species (including bracken or scrub)	Investigation ongoing
Deroran Bog	Active raised bogs unfavourable due to water management (including drainage, dredging or alterations to the water table. Could be too much water or too little)	Investigation ongoing

There are no Special Protection Areas in the Strule LMA. Further details on Special Areas of Conservation in Strule LMA are available in the **protected areas** section of the website.

Supplementary measures required to achieve environmental objectives for rivers, lakes, transitional and coastal water bodies have been identified for a number of sectors and pressures in this LMA. Supplementary measures will be applied during the implementation phase of the River Basin Management Plans subject to necessary funding and tests to justify technical feasibility and cost effectiveness.

Table 5: ¹Supplementary measures in Strule LMA

Key sectors	Supplementary measures	Additional information
Agriculture	Target education, advice and regulatory action	See Table 3 for number of water bodies where invertebrates are less than good
Collection and treatment of sewage	Assess significance of septic tanks and take action accordingly	See Table 3 for number of water bodies where invertebrates are less than good.
	Upgrade WWTWs with a population equivalent greater than 250	² Omagh upgrade under PC10
Industry and other business	Improve compliance with discharge consents	There are 2 non compliant discharges based on 2008 compliance data
Agriculture Collection & treatment of sewage Industry & other business	Assess point source phosphorus loads	See Table 3 for number of water bodies where SRP, diatoms or macrophytes are less than good
	Target further phosphorus controls from point sources	
	Assess diffuse nutrient loads using mathematical modelling	
	Target further phosphorus controls from diffuse sources	
Pressures	Supplementary measures	Additional information
Specific & priority substances	Develop and implement Pollution Reduction Programmes	See Table 3 for number of water bodies impacted by Specific Pollutants/Priority Substances
Abstraction & flow regulation Morphology	Develop mitigation measures identified for hydromorphology pressures	There are 4 HMWBs at <GEP and 18 water bodies are affected by changes to morphology
Pressure Unknown	Carry out further investigation	There are 3 water bodies where confidence in class is low

¹ Strategic Environmental Assessment has considered the impacts associated with the suite of supplementary measures proposed. Where impacts were identified, mitigation measures were proposed and are detailed in the SEA Mitigation Measures document which is available on the website.

² The dates/works upgrades may be subject to change. PC10 upgrades cover the period April 2010 – March 2013

Responses from the draft River Basin Plan consultation were used to identify the measures below:

- promote efficient use of water;
- introduce seasonal discharge consents, where possible, to promote installation of reed beds and constructed wetlands for sewage treatment;
- improve septic tank maintenance installation and design;
- review and investigate the effectiveness of wetlands in the reduction of nutrient loadings; and
- facilitate River Trusts across Northern Ireland.

The improvements in water quality proposed above will be delivered through a programme of measures coordinated by the Department of the Environment. Some of these measures are already being carried out in Strule LMA.

Local measures are also being applied in this LMA. There are a number of projects and initiatives run, for example, by local communities, angling groups and voluntary environmental organisations that will contribute to achieving the objectives we have set for our waters.

If you are running a project or carrying out work that will assist in protecting the water environment or water dependant features, or restoring natural waters then we would encourage you to let us know.

Contact details for your **Catchment Stakeholder Group** are available on the **public participation** section of the website.

