

Northern Ireland
Environment Agency

GLENS AND RATHLIN

Local Management Area Information Leaflet



Information Leaflet - Glens and Rathlin 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 Eastern District. These LMA Plans will be implemented on a three-year rolling programme within the North Eastern District as set out below:

- South Down, Strangford, Lagan and Bush in 2010;
- Quoile, Belfast Lough and Glens & Rathlin in 2011;
- Larne Lough in 2012.

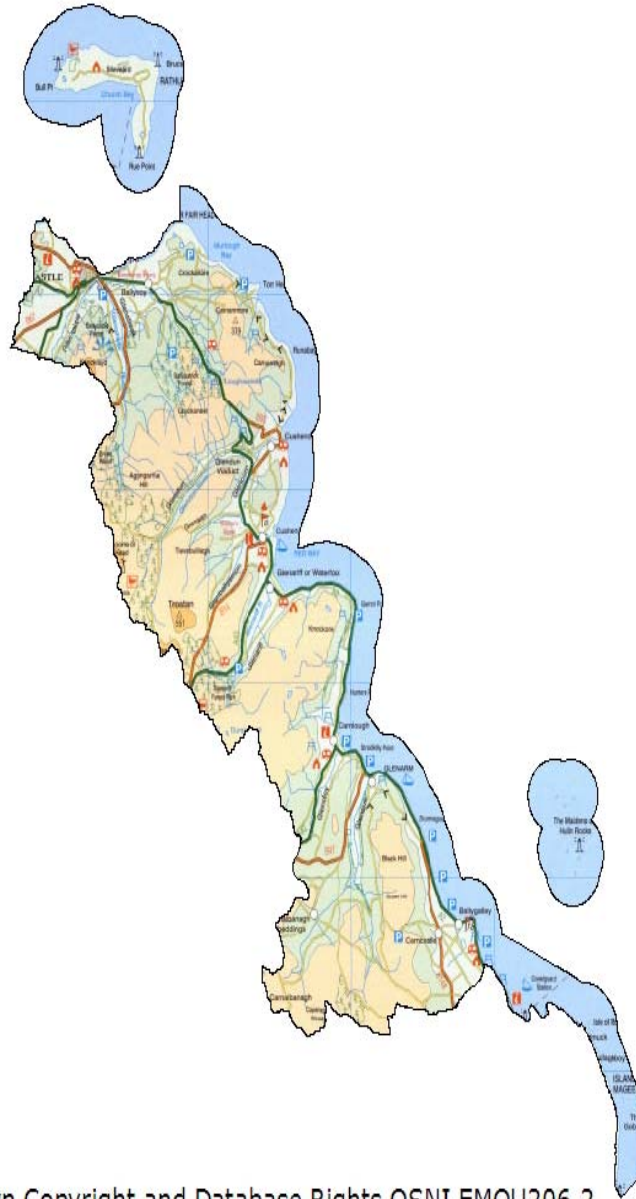
Introduction

Glens and Rathlin LMA is in the North Eastern River Basin District and comprises of all 9 Glens of Antrim and Rathlin Island.

The main rivers throughout this area all rise within the Glens and ultimately flow into the North Channel with the exception of the Glenshesk which flows into the Atlantic.

The dominant land use is improved grassland, forestry and arable farming. The main towns are Ballycastle to the north and majority of Larne in the south, with a number of small coastal villages scattered between e.g. Cushendun, Cushendall, Glenarm and Carnlough.

As well as tourism the area supports a range of recreational activities including walking/hiking, bird watching and fishing.



Key Facts

LMA area: 730km²

WFD water bodies:

21 rivers water bodies
3 coastal water bodies
4 groundwater bodies

Main land use:

Agriculture (Improved grassland 29%)
Acid grass 12%

Key industries:

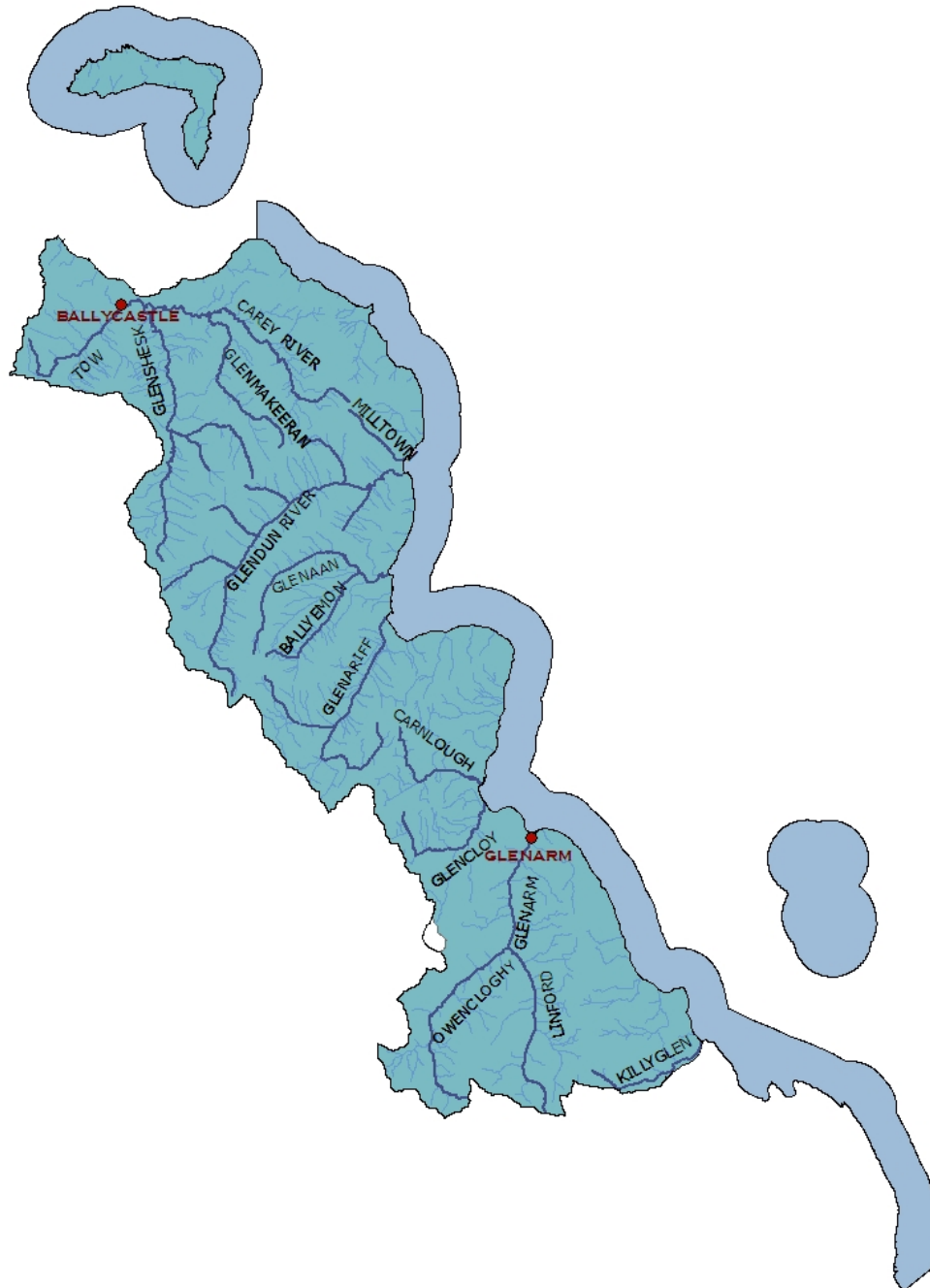
Agriculture
Tourism
Fishing
Forestry
Fisheries

Main towns and populations:

Larne (18228*)
Ballycastle (5089*)
Carrickmacross (1444*)
Cushendall (1241*)
Glenarm (582*)

(*Figures based on 2001 census)

Glens and Rathlin LMA with main rivers identified



The quality of water bodies in Glens and Rathlin LMA

Our understanding of the state of Northern Ireland’s water environment and Glens and Rathlin 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 them.

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.

In Glens and Rathlin LMA, Inver River has been designated as heavily modified.

What is the current status of surface water bodies in Glens and Rathlin LMA?

41.7% of surface water bodies in Glens and Rathlin LMA have been classified as less than good status and 4.2% of these were identified as heavily modified. Most rivers failed to achieve good status due to impacts on invertebrate communities. Glens and Rathlin LMA contains three coastal water bodies which are Rathlin Island, North Channel and Maiden Islands. These are all currently achieving good status or above.

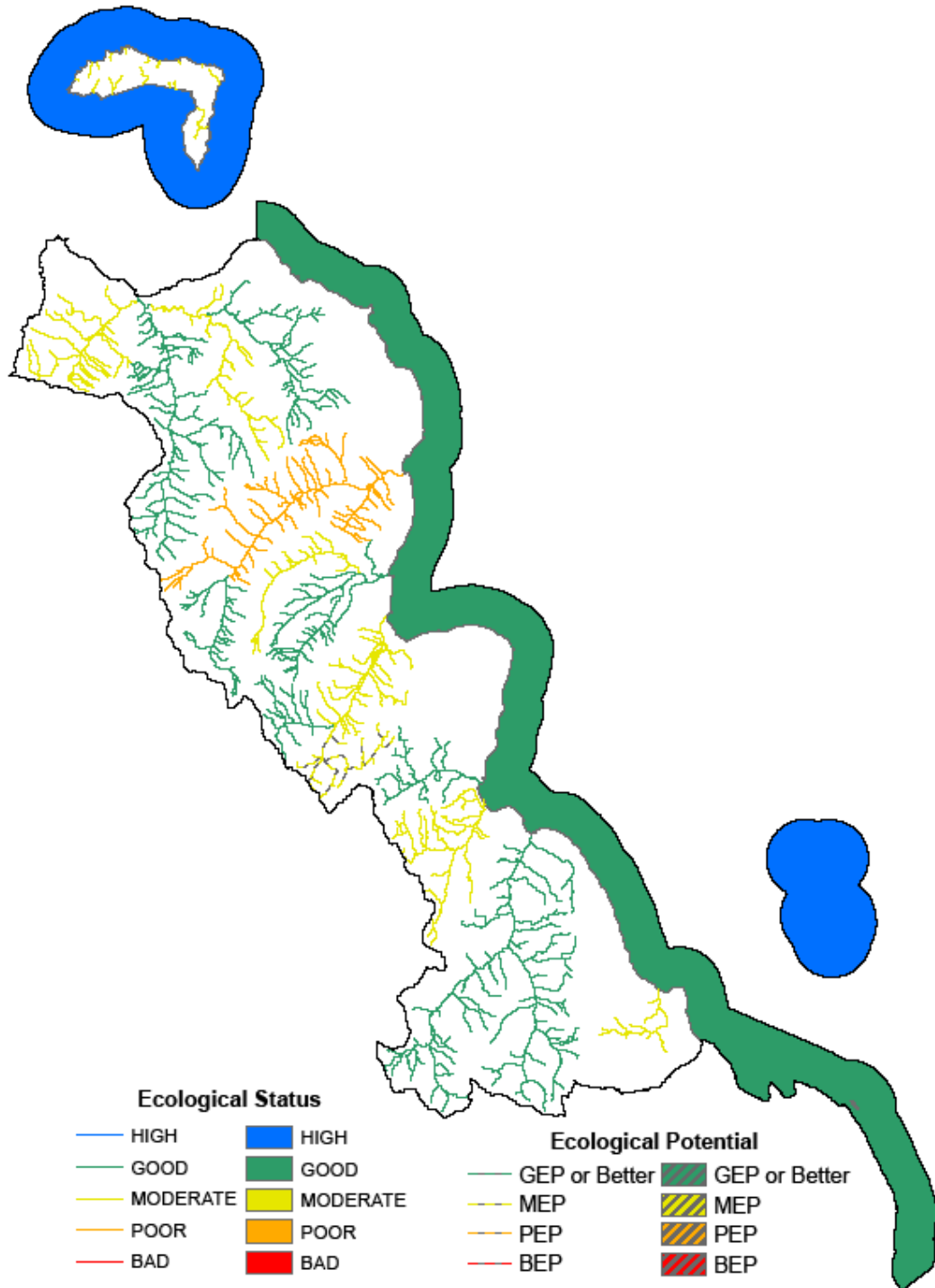
Table 1: Status of surface waters in Glens and Rathlin LMA

| Water body type | High | Good | Moderate | Poor | Bad | GEP | MEP | PEP | BEP |
|----------------------|------|------|----------|------|-----|-----|-----|-----|-----|
| River | 0 | 11 | 8 | 1 | 0 | 0 | 1 | 0 | 0 |
| % | 0 | 52.4 | 38.1 | 4.8 | 0 | 0 | 4.8 | 0 | 0 |
| Coastal | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % | 66.7 | 33.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Surface Waters | 2 | 12 | 8 | 1 | 0 | 0 | 1 | 0 | 0 |
| % | 8.3 | 50.0 | 33.3 | 4.2 | 0 | 0 | 4.2 | 0 | 0 |

Groundwaters (underground water) lie beneath the surface of the land and are not usually visible to us. They interact with the surface waters around them, thus the quality and quantity of an area’s groundwater can affect the surface waters.

All groundwater bodies in Glens and Rathlin LMA are achieving good status.

Overall status of water bodies in Glens and Rathlin LMA



Protected areas in Glens and Rathlin 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 Glens and Rathlin LMA

| Protected Area Type | Location |
|---|--|
| <p>Waters used for the abstraction of drinking water (drinking water protected areas)</p> | <p>There is 1 drinking water protected river.</p> <p>There are 4 drinking water protected groundwaters.</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 147 km of rivers identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are no designated shellfish waters in this area.</p> |
| <p>Bathing Waters</p> <p>These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)</p> | <p>There are 5 identified bathing waters; Ballycastle, Ballygalley, Brown's Bay, Carnlough and Waterfoot.</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 are no Urban Waste Water Treatment Directive sensitive areas.</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 2 water dependent Special Areas of Conservation: Rathlin Island and Garron Plateau.</p> <p>There are 2 water dependent Special Protection Areas: Rathlin Island and Antrim Hills.</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**

Three river water bodies were identified as being impacted by **abstraction and flow regulation**. Inver River is a Heavily Modified Water Body. Although the other two river water bodies were not classified as heavily modified, they did show impacts from abstraction and flow regulation. Reasons for this classification include the presence of hydropower schemes. The rivers affected were: Rathlin and Carey River

A number of biological and chemical elements 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 | |
|---|--|---------|
| | Rivers | Coastal |
| Macrophytes | 0 | N/A |
| Diatoms | 0 | N/A |
| Phytoplankton | N/A | 0 |
| Macroalgae | N/A | 0 |
| Angiosperms | N/A | 0 |
| Invertebrates | 7 | 0 |
| Fish | 1 | N/A |
| DIN | N/A | 0 |
| Phosphorous | 0 | N/A |
| Dissolved Oxygen | 0 | 0 |
| Specific Pollutants/Priority Substances | 0 | 0 |

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

In Glens and Rathlin LMA the main impact was observed in invertebrate communities. This element is associated with organic enrichment but may also be influenced by morphological effects. The rivers affected were: Ballygalley Burn, Glenmakeeran River, Carey River, Glanaan River, Glenariff River, Tow River and Glencoy River.

There was little evidence of nutrient enrichment within the catchment.

Four river water bodies were identified as being affected by **changes to morphology (physical habitat)** and this was also likely to affect the invertebrate element. The rivers affected were: Glenmakeeran River, Carey River, Glенаan River and Glencoy River.

Five other river water bodies have also been identified as affected by changes to morphology. However these changes were not impacting sufficiently to downgrade the overall status. We will continue to monitor these rivers for any further changes. The rivers affected were: River Dall, Ballyemon River, Glenshesk River, Glendun River and Carnlough River

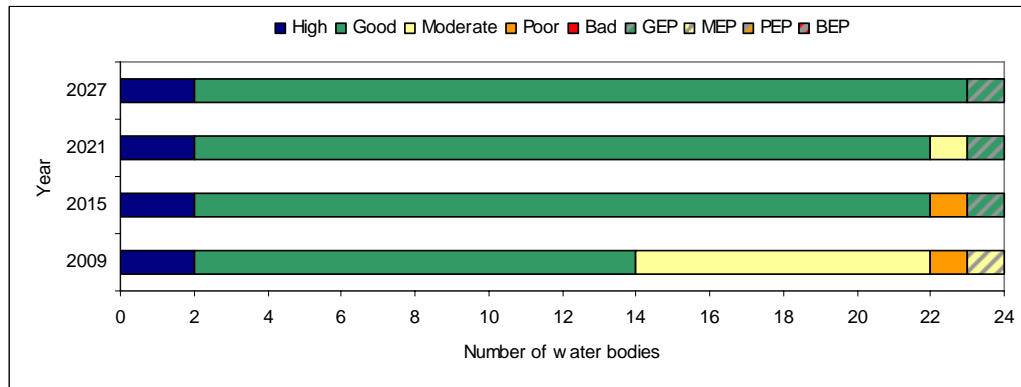
The water environment in Northern Ireland has been impacted by the introduction of **invasive alien species**. Species which have already become established in this area include:

- Japanese Knotweed (*Fallopia japonica*)
- Himalayan Balsam (*Impatiens glandulifera*)

What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown below. We aim to achieve good status or better in 91.6% and GEP (for Heavily Modified Water Bodies) in 4.2% of our surface waters by 2015. We aim to maintain good status in 100% of our groundwaters.

Current status and proposed objectives for surface waters in Glens and Rathlin LMA



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

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

The programme of measures described in the North Eastern 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 current Bathing Water Directive (76/106/EEC) and revised Bathing Water Directive (2006/7/EEC);
- The Birds Directive (79/409/EEC);
- 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;
- Controls on other activities impacting on water status; and
- Controls to avoid increase in pollution of marine waters.

Further information on existing and planned measures for each sector is available on the **programme of measures** section of the website.

The following measures are in place to manage the problems with alien species:

- Rivers Agency Management protocols (Himalayan Balsam and Japanese Knotweed)
- NIEA/National Parks and Wildlife Service best practice management guidance for Japanese Knotweed and Himalayan Balsam.

www.ni-environment.gov.uk/wfd

- A number of codes of practice, educational and awareness leaflets have been prepared and are available to download from www.invasivespeciesireland.com

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.

Rathlin Island and Garron Plateau Special Areas of Conservation and Rathlin Island Special Protection Area are all in favourable condition. The condition of all the features Antrim Hills SPA has not been assessed. Further details on Special Areas of Conservation and Special Protection Areas in the Glens and Rathlin 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 Glens and Rathlin LMA

| Key sectors | Supplementary measures | Additional Information |
|---|--|---|
| 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 sewer network | ² Upgrade of Ballygally sewer network under PC10 |
| Industry & other business | Improve compliance with discharge consents | There is 1 non compliant discharge based on 2008 compliance data. |
| Pressures | Supplementary measures | Additional Information |
| Abstraction & flow regulation Morphology | Develop mitigation measures identified for hydromorphology pressures | There is 1 HMWB at <GEP and 4 water bodies are affected by changes to morphology. |
| Pressure Unknown | Carry out further Investigation | There are 2 water bodies where confidence in class is low. |

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;
- 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 Glens and Rathlin LMA.

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

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. Some of those happening in Glens and Rathlin LMA are shown below.

National Trust

- Environmental Compliance Audit of all National Trust owned sites. Water Pressure is diffuse and Point source pollution. Emergency remedial action has been completed. Action on the remaining assets presenting a risk to water quality completed or in progress. Issue a code of practice to septic tank users. Sites include Cushendun, Fairhead and Rathlin Island.
- Ongoing advice to farm tenants on resource management, waste control and environmental performance. Encouraging tenants to adhere to best practice for pollution control. Sites include Cushendun, Fair Head and Murlough Bay.
- Coastal Risk Assessment to identify habitats at risk of coastal erosion and flooding. Based on the results, work to identify opportunities for managed realignment and habitat creation on National Trust land. Assessment complete and follow-up action ongoing at Cushendun, Loughan Bay, Portleen, Fair Head and Rathlin Island.
- Control of invasive species on National Trust Land. Participation in invasive species control forums and provide advice on good practice in invasive species control. Ongoing at Fairhead.
- Audit of water use at all National Trust sites to establish a baseline then set targets for reduction and introduce water efficiency measures. Abstraction and flow pressure. Ongoing at Cushendun and Rathlin Island.

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.

Our aim is to protect, conserve and promote the natural environment and built heritage for the benefit of present and future generations.

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