

Northern Ireland  
Environment Agency

## FAUGHAN

### Local Management Area Information Leaflet



## **Information Leaflet - Faughan 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**

Faughan LMA is part of the North Western River Basin District and covers an area of approximately 311km<sup>2</sup>. There are several rivers in this LMA – River Faughan, River Faughan Park, Glenrandal and Forglen. The area supports a wide range of natural habitats several of which are protected.

The River Faughan and its tributaries including the Burntollet River, Bonds Glen and the Glenrandal River and its tributary the Inver River are protected nationally and internationally due to the presence of Atlantic Salmon. Otters are a widespread and common occurrence in the LMA.

Londonderry is the largest urbanised area but there are numerous smaller towns and villages throughout the area e.g. Claudy. The land area is predominantly improved grassland with increasing arable horticulture moving north.

The southern part of the LMA is part of the Sperrin Area of Outstanding Natural Beauty. There are a wide range of recreational activities in this area including walking, angling, golfing, canoeing and bird watching.

**Key Facts**

**LMA area:** 311 km<sup>2</sup>

**WFD water bodies:**

10 river water bodies  
1 groundwater body

**Main land use:**

Agriculture (Improved grassland and Arable 45%)  
Acid grass 13%  
Neutral grass 13%

**Key industries:**

Agriculture  
Mining  
Fishing

**Main cities/towns and populations:**

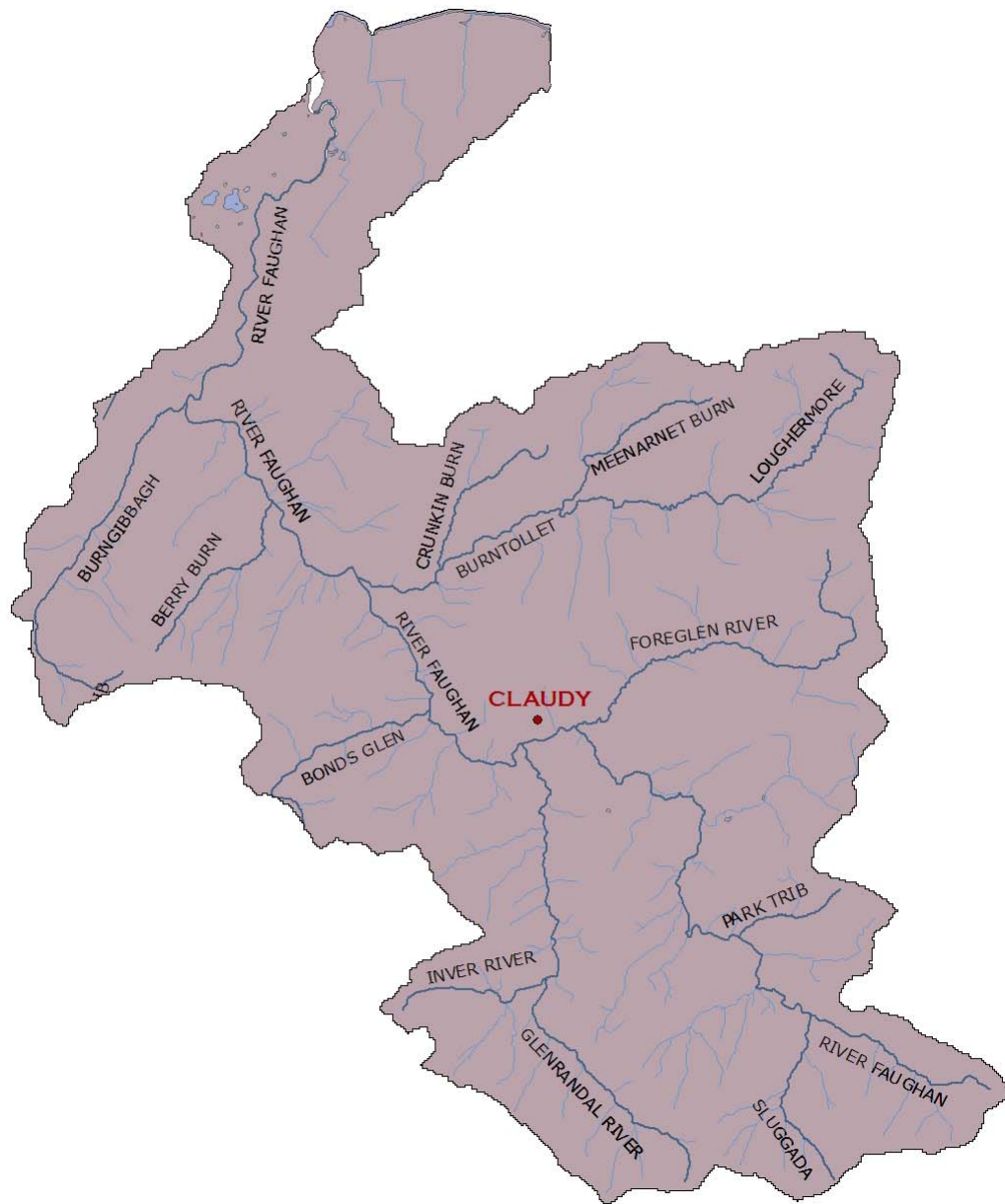
Londonderry (83699\*)  
Claudy (1316\*)

\*Figures based on 2001 census.



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**Faughan LMA with main rivers identified**



## The quality of water bodies in Faughan LMA

Our understanding of the state of Northern Ireland’s water environment and Faughan 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.

One water body, River Faughan, has been classified as heavily modified.

### What is the current status of surface waters in Faughan LMA?

60% of surface water bodies in Faughan LMA have been classified as less than good status. Many of the rivers failed to achieve good status due to elevated levels of specific pollutants and impacted invertebrate and diatom communities.

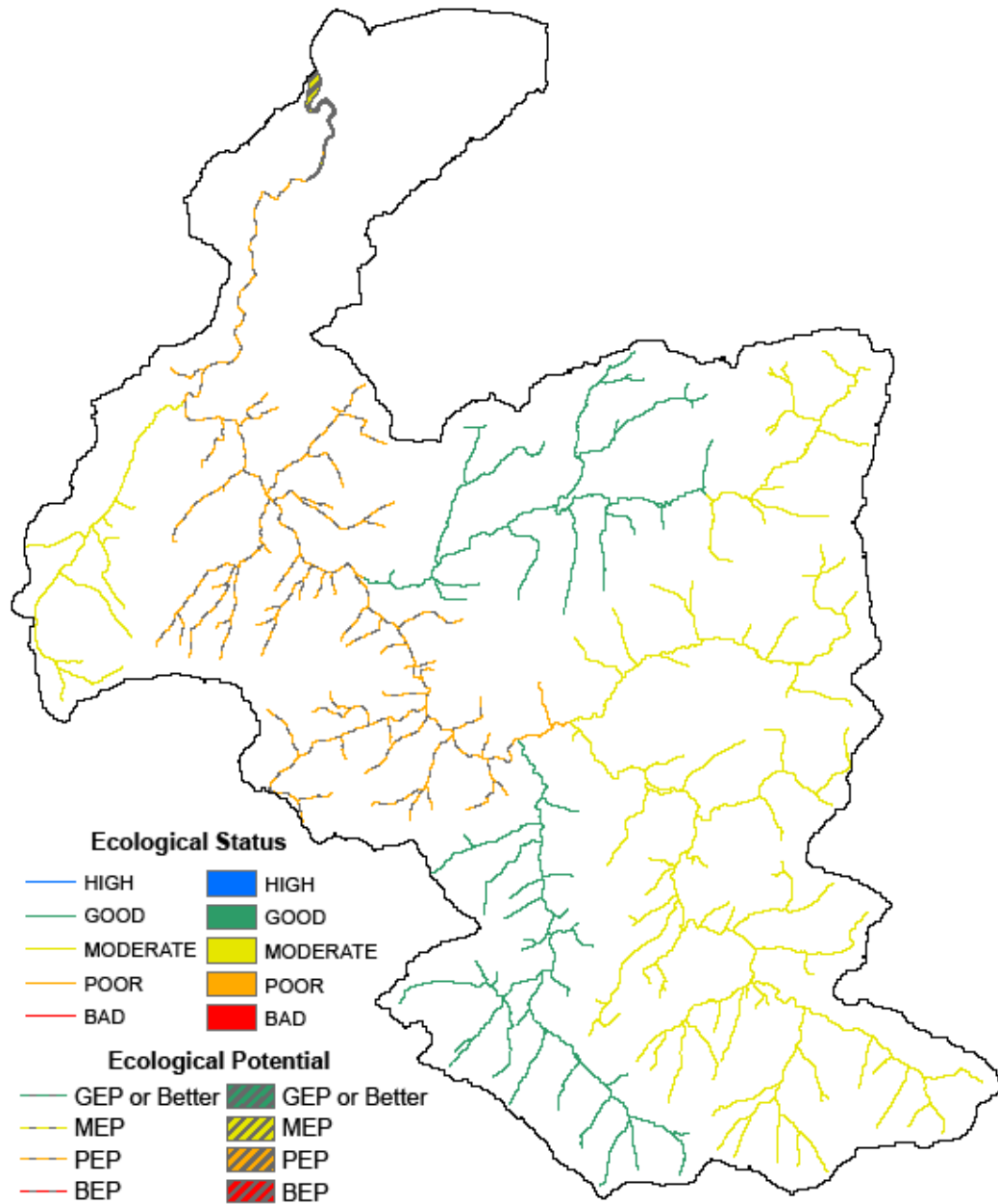
**Table 1: Status of surface waters in Faughan LMA**

| Water body type      | High | Good | Moderate | Poor | Bad | GEP | MEP | PEP | BEP |
|----------------------|------|------|----------|------|-----|-----|-----|-----|-----|
| River                | 0    | 4    | 4        | 1    | 0   | 0   | 0   | 1   | 0   |
| %                    | 0    | 40   | 40       | 10   | 0   | 0   | 0   | 10  | 0   |
| Lake                 | 0    | 0    | 0        | 0    | 0   | 0   | 0   | 0   | 0   |
| %                    | 0    | 0    | 0        | 0    | 0   | 0   | 0   | 0   | 0   |
| Total Surface Waters | 0    | 4    | 4        | 1    | 0   | 0   | 0   | 1   | 0   |
| %                    | 0    | 40   | 40       | 10   | 0   | 0   | 0   | 10  | 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 Faughan LMA are achieving good status.

**Overall status of water bodies in Faughan LMA**



## Protected areas in Faughan 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 Faughan LMA**

| Protected Area Type   | Location  |
|---|---|
| <p><a href="#">Waters used for the abstraction of drinking water (drinking water protected areas)</a></p>   | <p>There is 1 drinking water protected areas.</p> <p>There are groundwater protected areas.</p>   |
| <p><a href="#">Areas designed to protect economically significant aquatic species</a></p> <p>Freshwater Fish Directive (78/659/EEC)</p> <p>Shellfish Waters Directive (79/923/EC)</p>   | <p>There are 102 km river identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are no designated shellfish waters.</p>                                   |
| <p><a href="#">Bathing Waters</a></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><a href="#">Nutrient Sensitive Areas</a></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 Faughan.</p> <p>A total territory approach has been adopted in Northern Ireland for the Nitrates Directive.</p> |
| <p><a href="#">Areas designated for the protection of habitats or species (Natura 2000 sites)</a></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 is 1 water dependent Special Areas of Conservation; Faughan River and its tributaries.</p> <p>There is 1 water dependent Special Protection Area; Lough Foyle.</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**

One water body was identified as being impacted by **abstraction and flow regulation**. River Faughan has been classified as heavily modified.

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                             | 0                                      |
| Diatoms                                 | 2                                      |
| Phytoplankton                           | N/A                                    |
| Macroalgae                              | N/A                                    |
| Angiosperms                             | N/A                                    |
| Invertebrates                           | 2                                      |
| Fish                                    | 1                                      |
| DIN                                     | N/A                                    |
| Phosphorous                             | 0                                      |
| Dissolved Oxygen                        | 0                                      |
| Specific Pollutants/Priority Substances | 2                                      |

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

In this LMA impacts were seen in diatom communities which are associated with nutrient enrichment. The main rivers affected were: Faughan Claudy and Faughan.

Organic enrichment was observed in impacted invertebrate communities and the rivers affected were: Foreglen and Burngibbagh.

Two rivers were observed to have high levels of specific pollutants – Faughan and Faughan Park. Faughan Park had elevated levels of copper. This may be due to natural run-off from the Sperrin Mountains. Elevated metal levels tend to be associated with upland acidic peaty soils and granite outcrops. This needs further investigation to determine the cause of the high levels of copper.

Seven water bodies were identified as being affected by **changes to morphology (physical habitat)**. The main rivers affected were: Loughmore, Cullion burn, Foreglen, Faughan, Faughan Park, Burntollet and Glenrandal. Morphology may be having a negative influence on fish populations. Further investigation is needed to clarify this. In the Cullion Burn, Burntollet and Glenrandal Rivers, morphology changes were not impacting enough to downgrade 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:

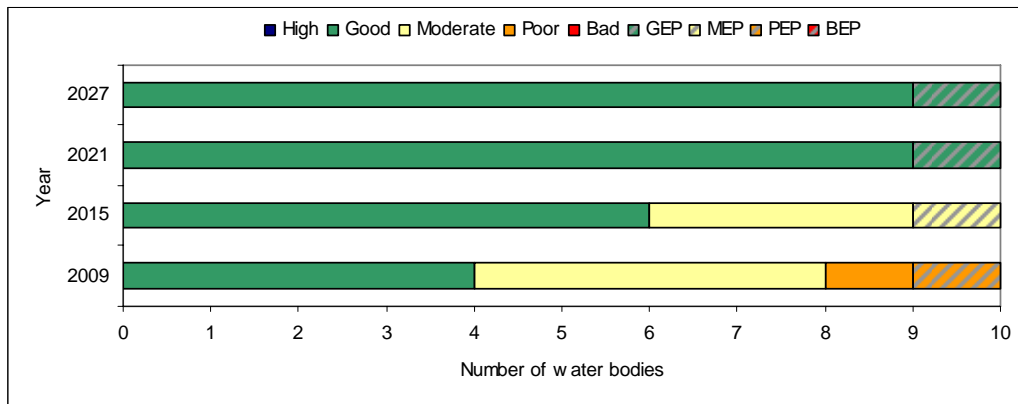
- Japanese Knotweed (*Fallopia japonica*)
- Himalayan Balsam (*Impatiens glandulifera*)

### 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 60% of our surface waters by 2015 and GEP (for Heavily Modified Water Bodies) in 10% of our surface waters by 2021.

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

### Current status and proposed objectives for surface waters in Faughan LMA



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

There are a number of measures which will be implemented in Faughan 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 Birds Directive (79/409/EEC);
- The Sewage Sludge Directive (86/278/EEC);
- 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.

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 Giant Hogweed and Himalayan Balsam.
- A number of codes of practice, educational and awareness leaflets have been prepared and are available to download from [www.invasivespeciesireland.com](http://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.

The condition of all the features of the Faughan River and Tributaries Special Area of Conservation has not been assessed.

The Lough Foyle Special Protection Area in this LMA is in unfavourable condition. Unfavourable Special Protection Areas require investigation to identify external and internal factors. The issues are unclear; may be changes in migratory patterns, disturbance to high tide roost sites, water quality and/or ecological factors. Further details on Special Areas of Conservation and Special Protection Areas in the Faughan 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 4: <sup>1</sup>Supplementary measures in Faughan LMA**

| <b>Key sectors</b>   | <b>Supplementary measures</b>  | <b>Additional information</b>   |
|--|--|---|
| Agriculture  | Target education, advice and regulatory action                       | See Table 3 for number of water bodies where invertebrates are less than good   |
| Collection & 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 under the Rural Wastewater Investment Programme        | <sup>2</sup> Ardground and Legaghory to be completed by 2010  |
| Industry and other business  | Improve compliance with discharge consents                           | There are 16 non compliant discharges based on 2008 compliance data   |
| Agriculture<br>Collection & treatment of sewage<br>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              |   |
| <b>Pressures</b>   | <b>Supplementary measures</b>  | <b>Additional information</b>   |
| 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 and Morphology   | Develop Mitigation measures identified for hydromorphology pressures | There is 1 HMWB at <GEP and 7 water bodies are affected by changes in morphology  |
| Pressure Unknown   | Carry out further Investigation                                      | There is 1 water body where cause of pressure cannot be identified.<br>There is 1 water body where there are metal failures – copper.<br>There are 2 water bodies where confidence in class is low. |

<sup>1</sup> 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.

<sup>2</sup> 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 which are already being carried out in Faughan 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. Some of those happening in Faughan LMA are shown below.

#### **Carmoney Water Treatment Plant Issue Log**

Two problems have been identified at the Carmoney Water Treatment Plant. The emergency discharge for the plant causes a health and safety problem for anglers and discharge from the plant leads to a grey plume in the river due to excessive polyelectrolyte binding with the sediment.

NIEA Regional Operations staff are working with Loughs Agency, Faughan Anglers and Northern Ireland Water to resolve these issues. NIEA will take samples upstream and downstream of the discharge point.

#### **Port Master Plans**

The nature of a port's business means that investment decisions are generally over the medium to long term. Port master planning is therefore designed to provide an objective basis for the ports to engage with local stakeholders, including planning authorities and development agencies, in order to help co-ordinate medium-term planning of the port within their wider context.

The main purpose of the plans is to:

- clarify the port's own strategic planning for the medium to long term;
- assist planning authorities (at both regional and local level) and Roads Service in the preparation and revision of their own strategies and plans; and
- inform port users, employees and local communities as to how they can expect to see the port develop over the coming years.

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.

[www.ni-environment.gov.uk/wfd](http://www.ni-environment.gov.uk/wfd)

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

