

Northern Ireland
Environment Agency

BURN DENNET AND FOYLE Local Management Area Information Leaflet



Information Leaflet - Burn Dennet and Foyle 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

Burn Dennet and Foyle LMA is part of the North Western River Basin District and covers an area of approximately 491km². The main river is the River Foyle and its tributaries. The River Foyle below Strabane becomes more slow-flowing and is transitional due to the influence of Lough Foyle which is also included in the LMA.

The primary fish species within Burn Dennet LMA includes Atlantic Salmon, Sea Trout, resident Brown Trout, Sea Lamprey, River/Brook Lamprey and European Eel. Grey Mullet and European Smelt are present within the tidal River Foyle.

The LMA supports a wide range of natural habitats of which several are protected. Lough Foyle is a protected area and is also designated under the Ramsar Convention as it is a particularly good representative example of a wetland complex including intertidal sand and mudflats. The south east of the LMA is part of the Sperrin Area of Outstanding Natural Beauty.

Londonderry is the main city and Strabane is the largest town in the area. The bulk of the land area is given over to improved grassland. The valleys surrounding Burn Dennet River and its tributaries have pockets of semi-natural woodland.

The area has a range of recreational activities including walking, angling, bird watching and sailing.

Key Facts

LMA area: 491km²

WFD water bodies:

- 9 river water bodies
- 1 transitional water body
- 1 coastal water body
- 5 groundwater bodies

Main land use:

Agriculture (Improved grassland and Arable 57%)
Acid grass 17%

Key industries:

- Agriculture
- Forestry
- Mining
- Tourism
- Fishing
- Marine transport

Main cities/towns and populations:

Londonderry (83699*)
Strabane (13456*)

*Figures based on 2001 census.



© Crown Copyright and Database Rights OSNI EMOU206.2

Burn Dennet and Foyle LMA with main rivers identified



The quality of water bodies in Burn Dennet and Foyle LMA

Our understanding of the state of Northern Ireland’s water environment and Burn Dennet and Foyle 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.

Skeoge River is classified as heavily modified due to flood risk management. Foyle and Faughan Estuaries are heavily modified due to Londonderry Port and Harbour.

What is the current status of surface waters in Burn Dennet and Foyle LMA?

72.7% of surface water bodies in Burn Dennet and Foyle LMA have been classified as less than good status. Many of the rivers failed to achieve good status due to impacted invertebrate communities.

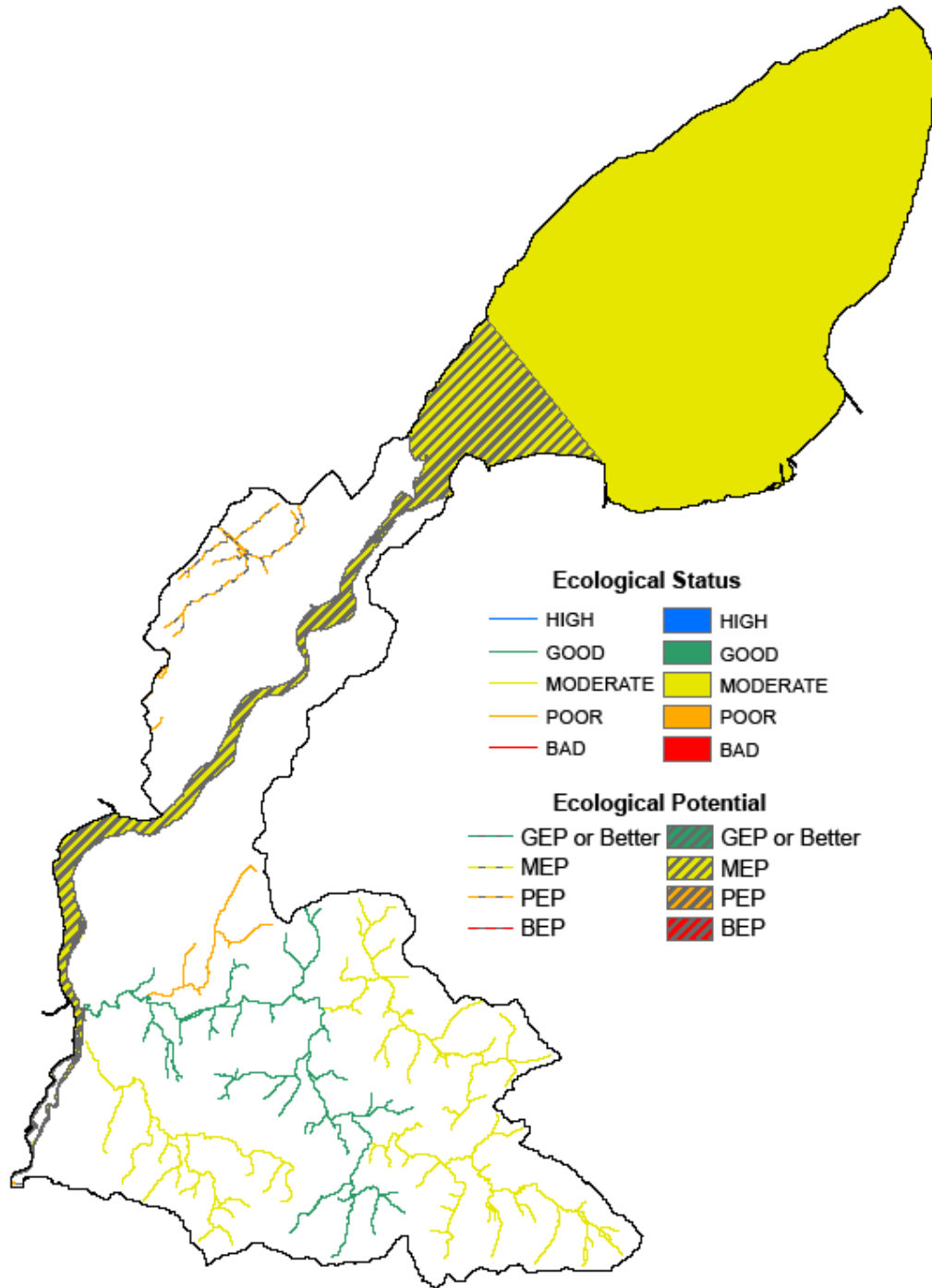
Table 1: Status of surface waters in Burn Dennet and Foyle LMA

Water body type	High	Good	Moderate	Poor	Bad	GEP	MEP	PEP	BEP
River	0	3	3	2	0	0	0	1	0
%	0	33.3	33.3	22.2	0	0	0	11.1	0
Transitional & Coastal	0	0	1	0	0	0	1	0	0
%	0	0	50	0	0	0	50	0	0
Total Surface Waters	0	3	4	2	0	0	1	1	0
%	0	27.3	36.3	18.2	0	0	9.1	9.1	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 Burn Dennet and Foyle LMA have been classified as good status.

Overall status of water bodies in Burn Dennet and Foyle LMA



Protected areas in Burn Dennet and Foyle 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 Burn Dennet and Foyle LMA

Protected Area Type	Location
<p>Waters used for the abstraction of drinking water (drinking water protected areas)</p>	<p>There are only Groundwater Protected Areas within this catchment.</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 approximately 71 km of river identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are 2 designated shellfish waters; Balls Point and Longfield Bank.</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 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 is 1 water dependent Special Areas of Conservation; River Foyle and 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 in the area were identified as being impacted by **abstraction and flow regulation**. Skeoge River has been classified as heavily modified due to flood risk management.

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	Coastal	Transitional
Macrophytes	0	N/A	N/A
Diatoms	0	N/A	N/A
Phytoplankton	N/A	0	N/A
Macroalgae	N/A	0	N/A
Angiosperms	N/A	0	N/A
Invertebrates	5	1	0
Fish	1	N/A	0
DIN	N/A	0	1
Phosphorous	0	N/A	N/A
Dissolved Oxygen	1	0	0
Specific Pollutants/Priority Substances	2	0	0

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

In this LMA the main impact observed in river water bodies was in invertebrate communities. This element is associated with organic enrichment. The rivers affected were: Altinaghree Burn, Burn Dennet, Glenmornan, Burngibbagh and Skeoge.

For specific pollutants/priority substances, high diazinon (organophosphate pesticide) levels downgraded Glenmornan River and elevated levels of ammonia and copper in Skeoge River.

In Lough Foyle coastal water body the main impact was seen in invertebrate communities. This may be caused by trawling which can cause deterioration in benthic invertebrate communities.

The main impact in transitional waters was seen in the DIN levels (Dissolved Inorganic Nitrogen) which is associated with nutrient enrichment. The transitional waters that were affected were Foyle and Faughan Estuaries.

Three water bodies were identified as being affected by **changes to morphology (physical habitat)**. The main rivers affected were: Altinaghree Burn, Burn Dennet and Glenmoran. In Burn Dennet River these changes were not impacting enough to downgrade the overall status. We will continue to monitor this river 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:

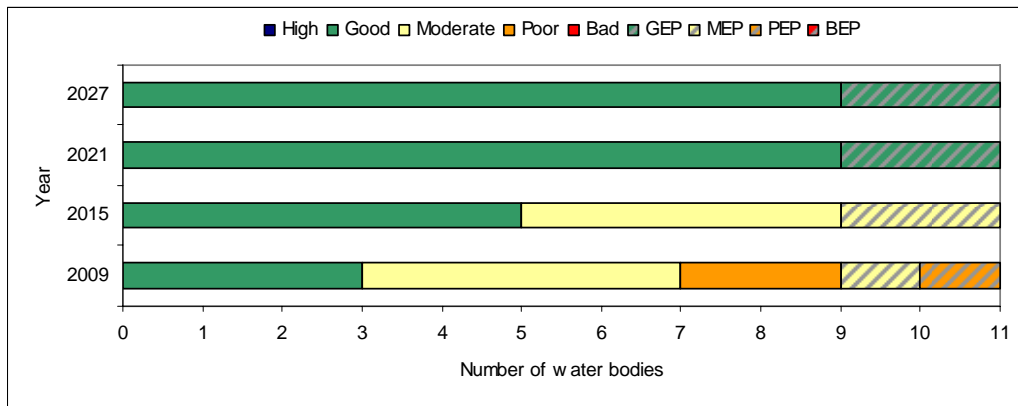
- Japanese Knotweed (*Fallopia japonica*)
- Himalayan Balsam (*Impatiens glandulifera*)
- Giant Hogweed (*Heracleum mantegazzianum*)

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 45.5% of our surface water bodies by 2015 and GEP (for Heavily Modified Water Bodies) in 18.2% of 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 Burn Dennet and Foyle LMA



How are we going to maintain and improve the water environment in Burn Dennet and Foyle LMA?

There are a number of measures which will be implemented in Burn Dennet and Foyle 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 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;
- Point source and diffuse source discharge control;
- Abstraction and Impoundment control
- Protection of drinking water sources
- 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 (Giant Hogweed, Himalayan Balsam and Japanese Knotweed)
- NIEA/National Parks and Wildlife Service best practice management guidance for Japanese Knotweed, Giant Hogweed and the Himalayan Balsam.
- 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.

The condition of all the features of the River Foyle 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 Burn Dennet and Foyle 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: ¹Supplementary measures in Burn Dennet and Foyle 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 & 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	² Glenmoran to be completed by 2010
Industry and other business	Improve compliance with discharge consents	There are 12 non compliant discharges based on 2008 compliance data
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 2 HMWBs at <GEP and 3 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;

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

- 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 Burn Dennet and Foyle LMA.

Local measures are also being applied in this LMA. Projects and initiatives run, for example, by local communities, angling groups and voluntary environmental organisations may contribute to helping NIEA achieve the objectives we have set.

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.

