

Northern Ireland  
Environment Agency

## UPPER BANN

### Local Management Area Information Leaflet



## **Information Leaflet - Upper Bann 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 Neagh Bann District. These LMA Plans will be implemented on a three-year rolling programme within the Neagh Bann District as set out below:

- Ballinderry and Lough Neagh in 2010;
- Blackwater, Lower Bann and Carlingford & Newry in 2011;
- Upper Bann, Moyola, Six Mile Water and Braid & Main in 2012.

### **Introduction**

Upper Bann LMA, part of the Neagh Bann River Basin District, drains into Lough Neagh at Bannfoot and covers an area of 397 km<sup>2</sup>. The main river is the Upper Bann, with the Cushier River as a major tributary. The Upper Bann rises in the Mourne Mountains from several tributaries including the Leitrim River, the Muddock River, the Rocky River and the Upper Bann reach. It flows northwards through Banbridge and joins with the Cushier south of Portadown.

The main towns in Upper Bann LMA are Craigavon and Banbridge. There are also many small towns in the area including Tandragee, Markethill and Rathfriland. The main land use in the area is given over to improved grassland plus some arable horticulture and forestry.

The LMA supports a wide variety of natural habitats, several of which are protected. The river also supports a range of recreational activities such as angling, walking and canoeing.

The twin forks of the upper reaches of the Upper Bann and the Cushier Rivers border on the Mourne Area of Outstanding Natural Beauty and the Ring of Gullion Area of Outstanding Natural Beauty respectively.

**Key Facts**

**LMA area:** 397 km<sup>2</sup>

**WFD water bodies:**

- 25 river water bodies
- 3 lake water bodies
- 3 groundwater bodies

**Main land use:**

Agriculture (improved grassland, arable horticulture) and forestry

**Key industries:**

- Agriculture
- Tourism
- Fishing

**Main towns and populations:**

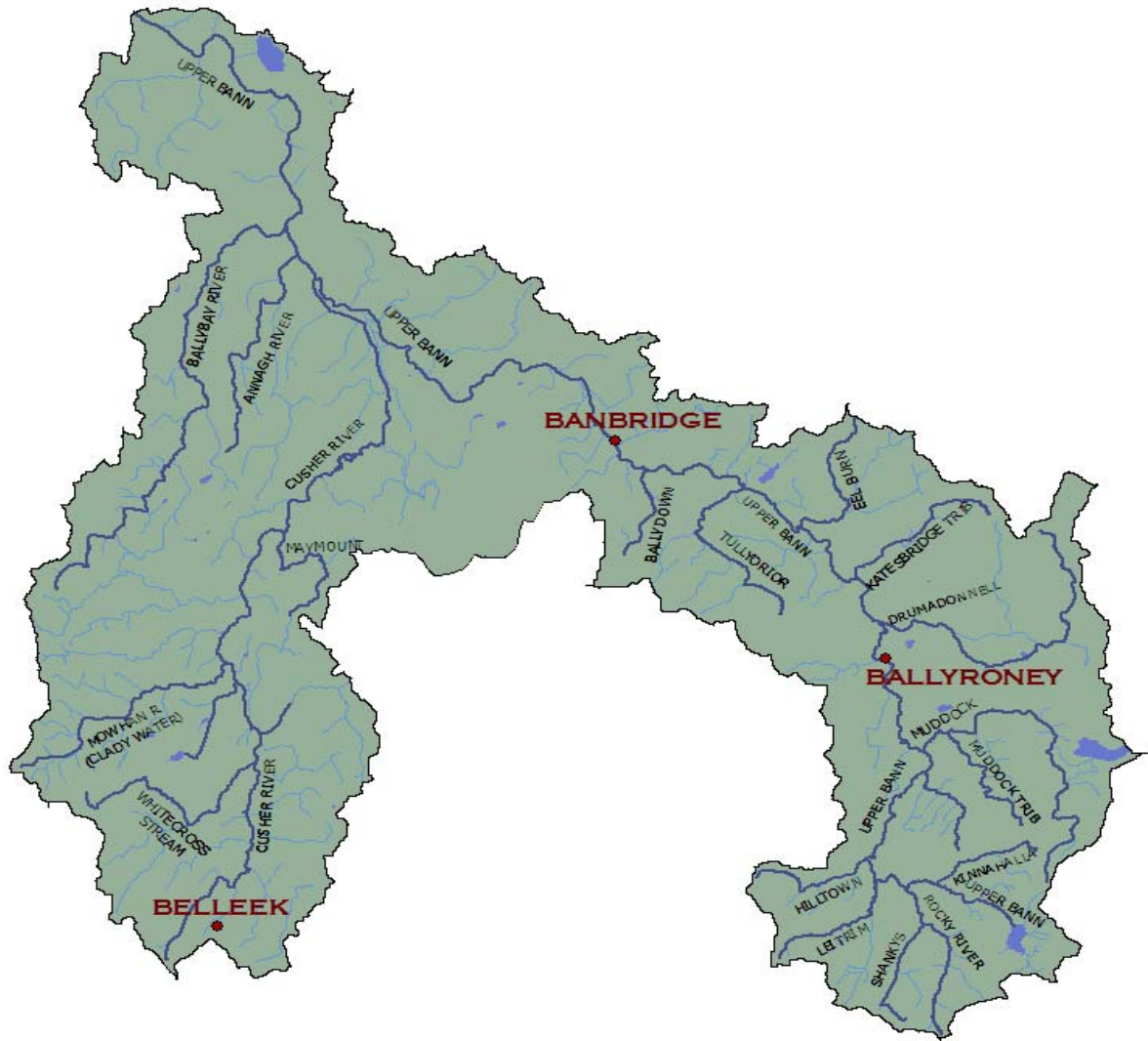
- Craigavon Urban Area (57685\*)
- Banbridge (14744\*)
- Tandragee (3050\*)
- Gilford (1573\*)
- Markethill (1292\*)

\*Figures based on 2001 census.



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Upper Bann LMA with main rivers identified



## The quality of water bodies in Upper Bann LMA

Our understanding of the state of Northern Ireland's water environment and Upper Bann 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.

Three sections of River Bann and Muddock River have been classified as heavily modified. Two lakes, Lough Island Reavy and Spelga Dam, are also classified as heavily modified.

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

100% of surface water bodies in Upper Bann LMA have been classified as less than good status. Many of the rivers failed to achieve good status due to elevated levels of phosphorous and impacted invertebrate communities.

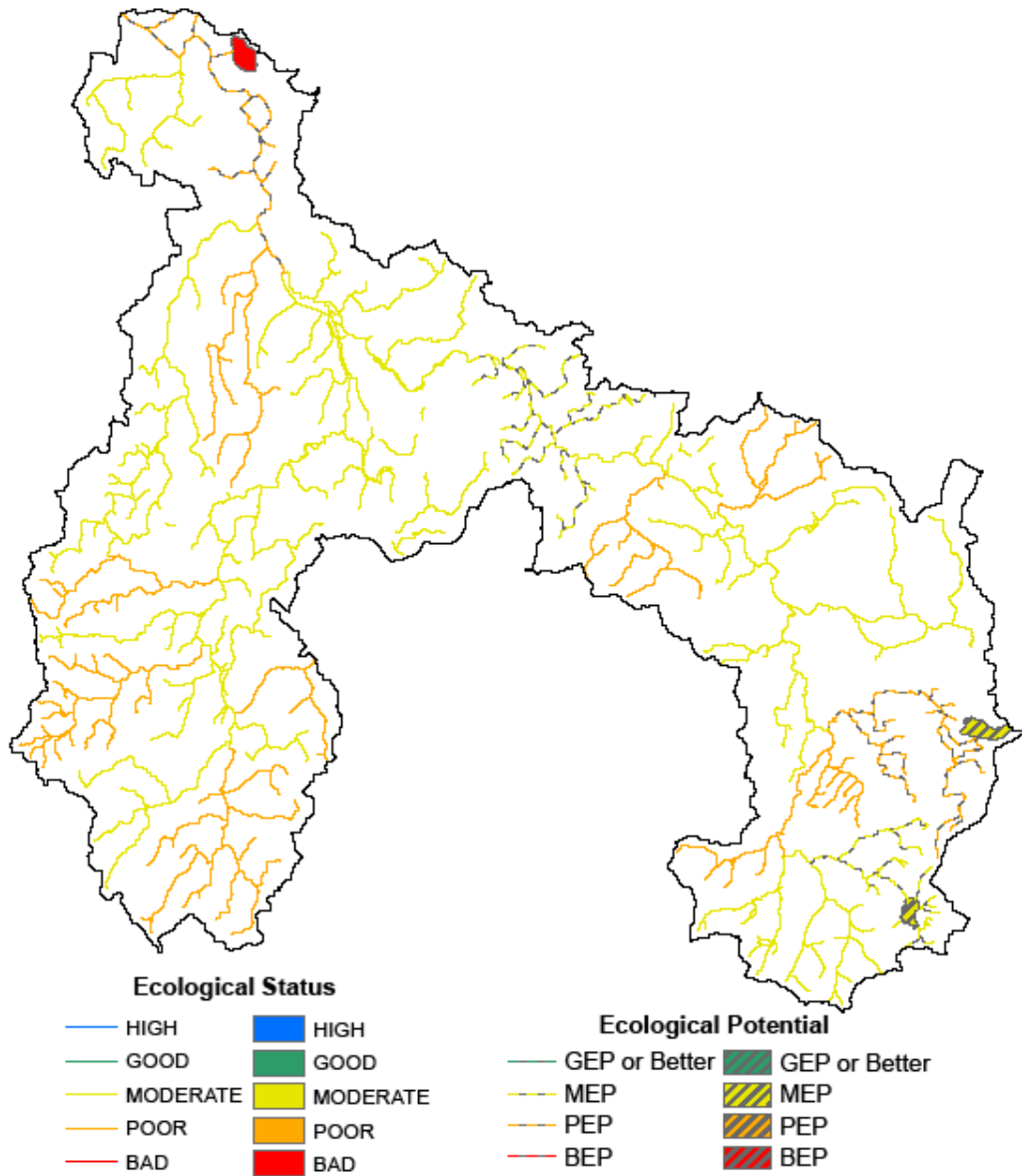
**Table 1: Status of surface waters in Upper Bann LMA**

Water body type	High	Good	Moderate	Poor	Bad	GEP	MEP	PEP	BEP
River	0	0	13	8	0	0	2	2	0
%	0	0	52	32	0	0	8	8	0
Lake	0	0	0	0	1	0	2	0	0
%	0	0	0	0	33	0	67	0	0
Transitional & Coastal	0	0	0	0	0	0	0	0	0
%	0	0	0	0	0	0	0	0	0
Total Surface Water	0	0	13	8	1	0	4	2	0
%	0	0	46	29	4	0	14	7	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.

There are 3 groundwater bodies within Upper Bann LMA - Aughnacloy, Tandragee and Neagh. All three are currently achieving good status.

**Overall status of water bodies in Upper Bann LMA**



## Protected areas in Upper Bann 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 Upper Bann LMA**

Protected Area Type	Location
Waters used for the abstraction of drinking water (drinking water protected areas)	There are 7 drinking water protected areas.
<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 206 km of rivers (22 km designated Cyprinid, 184 km designated Salmonid), 13.3 km canals (designated Cyprinid) and 2.5km<sup>2</sup> lakes (designated Salmonid) identified under the Freshwater Fish Directive.</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>	There are no identified bathing waters.
<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; Lough Neagh Catchment.</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 no water dependent Special Area of Conservation.</p> <p>There is 1 Special Protection Area; Lough Neagh &amp; Lough Beg.</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**

6 water bodies in the area were identified as being impacted by **abstraction and flow regulation**. They are: River Bann, Muddock River, River Bann Bannfoot, Spelga Dam and Lough Island Reavey. River Bann Upper contains an impoundment – Spelga Dam and a stretch of river that is engineered for flow regulation. River Bann Bannfoot is reinforced at Portadown with a slip way and fishing stands. This reinforcement is for inland navigation. Muddock River drains from Lough Island Reavey which is an old flax industry reservoir. The Muddock has been altered downstream for flow management. A section of the Upper Bann at Banbridge has been modified for flood defences and contains several culverts.

A number of the 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	Lake
Macrophytes	17	2
Diatoms	1	0
Phytoplankton	N/A	2
Macroalgae	N/A	N/A
Angiosperms	N/A	N/A
Invertebrates	17	N/A
Fish	2	0
DIN	N/A	N/A
Phosphorous	11	2
Dissolved Oxygen	6	1
Specific Pollutants / Priority Substances	6	0

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

In this LMA the main impact was seen in invertebrate and macrophyte suppression. The rivers affected were: Bann, Annagh, Cusher, Leitrim, Corcrair, Creggan, Glebe, Mowhan, Drumadonnell and Muddock.

7 water bodies were identified as being affected by **changes to morphology (physical habitat)**. The main rivers affected were: River Bann, River Cusher and the Gosford River Cusher.

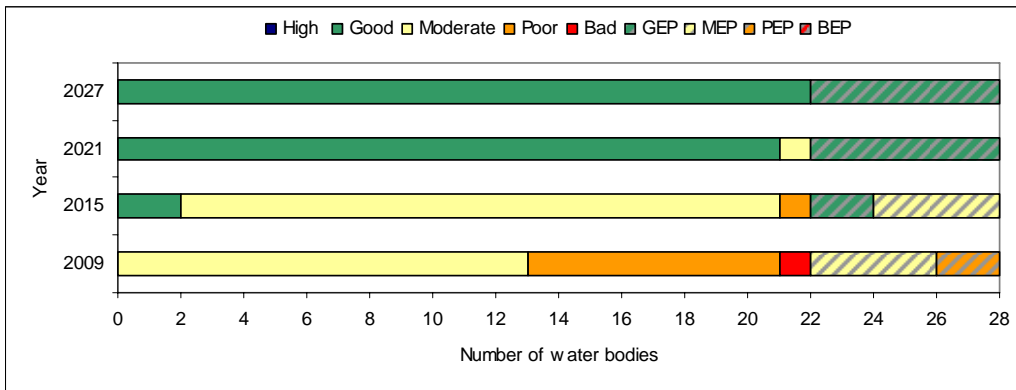
The water environment in Northern Ireland has been impacted by the introduction of **invasive alien species**. Some species which have already become established throughout this LMA are:

- Snowberry (*Symphoricarpos albus*)
- 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 14% of our surface waters and maintain good status in 100% of our groundwaters.

#### Current status and proposed objectives for surface waters in Upper Bann LMA



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

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

The programme of measures described in the Neagh Bann 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 Birds Directive (79/409/EEC);
- The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC);
- The Major Accidents Directive (96/82/EC);
- The Environmental Impact Assessment Directive (85/337/EEC);
- The Sewage Sludge Directive (86/278/EEC);
- The Urban Waste-water Treatment Directive (91/271/EEC);
- The Plant Protection Products Directive (91/414/EEC);
- The Nitrates Directive (91/676/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; and
- Controls to avoid increase of pollution in 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)
- NIEA/National Parks and Wildlife Service best practice management guidance for Giant Hogweed.
- 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.

There are no water dependent Special Areas of Conservation in Upper Bann LMA, although it does border the Eastern Mourne Special Area of Conservation. The Lough Neagh and Lough Beg 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, but may be related to 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 Upper Bann 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 Upper Bann 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	<sup>2</sup> Aghory, Ballycashone Road, Katesbridge Road, Mullaghmore and Silverford Road to be complete by 2010
	Upgrade sewer network	<sup>2</sup> Upgrades to Portadown sewer network under PC10
Industry & other business	Improve compliance with discharge consents	There are 12 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	
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 6 HMWBs at <GEP and 7 water bodies are affected by changes to morphology.
Invasive alien species	Deliver education and awareness campaigns. Eradicate alien species, where possible	
Pressure unknown	Carry out further investigation	There are 3 water bodies that fail due to copper and 1 that fails due to zinc. There are 9 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 maybe 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 the 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 applied in Upper Bann 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 Upper Bann LMA are shown below.

**River Bann Enhancement Group** produces annual action plans which steer a clear way forward in delivering the comprehensive and appropriate regeneration of the River Bann riverside at Portadown over a 10 year period. The action plan is informed by the Craigavon Area Plan 2010, the Portadown Development Framework and the River Bann appraisal carried out by Scott Wilson Planning Consultants in 2006. Achievements to date are detailed in the annual action plans and include aquatic and weed management, river focused events programmes, signage and education programmes.

**Friends of the River Bann** is a community interest group established in conjunction with the River Bann Enhancement Group and is due to be re-constituted January.

**Upper Bann River Enhancement Programme** is managed by Rathfriland Angling Club in partnership with Banbridge and Clonduff Angling Clubs and has completed river enhancement work on the Upper Bann River such as introducing stone groynes and spawning gravel.

**River Bann and Lough Neagh Association** came into existence officially in 1964 and is made up of a voluntary body of waterways enthusiasts and a Branch of Inland Waterways Association of Ireland. The River Bann and Lough Neagh Association holds events and fundraisers throughout the year and organise visits. Members expressed concerns about Rams Island and in 2003 the Association formed Rams Island Heritage Project Committee. The Association formed a Non Profit Taking Limited Company. In July 2007 at a Special General Meeting a unanimous resolution was passed for the Company to become a registered Charity.

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

The project aims to:

- preserve and promote the amenities, biodiversity and heritage of Rams Island;
- encourage more people to be involved in the heritage of Rams Island;
- ensure that everyone can learn about, have access to and enjoy the natural and built heritage of Rams 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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