Glens and Rathlin Local Management Area Action Plan and Update

December 2013







LMA Action	Progress Update		
Carry out freshwater fish monitoring with the aim of completing WFD monitoring at programmed surveillance monitoring stations	Fisheries meeting held on 2 nd October 2012 with Ulster Angling Federation, NIEA, DCAL, Loughs Agency and AFBI to discuss fish monitoring, data and to agree potential sites for improvement work to contribute towards improving water bodies with fish classifications of poor & bad.		
Complete desktop study and risk analysis using available catchment data to identify areas under pressure and allow further objective investigations on the ground to be carried out	Desktop study and risk analysis to assess potential pressures from landuse completed June 2011. Analysis also produced a list of sites which required further biological monitoring and identified river walks for areas requiring further information.		
Complete the phosphorus nutrient budget work for Northern Ireland	Nutrient budgets are being analysed alongside SIMCAT (SIMulation of the water quality of CATchments) models developed to represent the behaviour of flow and pollutants in rivers. This will inform actions to address diffuse and point source nutrient inputs to the water environment.		
Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland	Initial water resource assessment for the Glens & Rathlin LMA has been completed and a report is available on request.		
DARD Countryside Management and NIEA to develop leaflets and articles to promote effective farm nutrient and waste management	 Articles on Nitrates Action Plan and Phosphorus Regulations published in the 'Helping You To Comply booklets circulated to farmers and published on DARD website. 'Water quality plans in action' article published in the Farming Life October 2010. 'It's time now to check your silos' article published in Farmweek May 2013. 'Tidy Farms help prevent litter reaching the sea' article published in the Farming Life July 2013. 		
Develop leaflets and articles to promote effective farm nutrient and waste management	 'Landowner Awareness – Improving water quality in your local area' leaflet developed jointly with Loughs Agency, UFU and DARD to raise awareness amongst landowners. Presentation to CAFRE students on Water Framework Directive and water quality issues related to agriculture. 		
	 'NIEA & Water Pollution – Improving water quality' postcards produced to raise awareness on the role of the NIEA Regional Operations team and who to contact if water pollution is observed. All applicants to DARD agri-environment schemes receive farm waste management advice as part of their application to the scheme. DARD has produced a 'Code of Good Agricultural Practice' which contains practical 		
	management advice on how farm wastes can be collected, stored and spread		

Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits.	 with minimal risk to the environment. DARD has also developed an agri- environment training course for farmers dealing with farm wastes and nutrient management planning. Under the Nitrates Action Programme all farms must carry out crop and soil management to minimise soil erosion and nutrient run-off. This is verified during cross-compliance visits. Seventeen cross-compliance visits were carried out in 2011 in the Glens & Rathlin LMA, resulting in 5 breaches. The Water Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006 came into operation on 1 February 2007. The purpose of the Regulations is to control the abstraction and impoundment of water by means of a licensing scheme. The controls are necessary to meet the requirements of the Water Framework Directive and the Habitats Directive. Licence conditions are set to ensure flows in the river downstream of the abstraction point during operation, so as to maintain the river and groundwater ecosystems. See 'Guidance for run-of river hydropower schemes in NI' which is available at http://www.doeni.gov.uk/niea/quidance for run-
	of river_hydropower_schemes_in_northern_ireland.pdf
Highlight external funding opportunities for water management projects to local partners	 NIEA has piloted a dedicated competitive grant scheme which will be used to allocate funds to voluntary 'not for profit' bodies and local councils to support their operational work in the delivery of agreed water focused environmental objectives identified in the DOE and NIEA business plans. In the current financial year the pilot scheme is focused on WFD objectives as identified in River Basin Management Plans. The total funding for this grant aid in 2012/13 and 2013/14 is a maximum of £100K, with individual projects capped at £10K. The Water Quality Improvement Grant has been promoted through the NIEA website, mailing lists and at CSG meetings. Further information is available at http://www.doeni.gov.uk/niea/water-home/wfd/water_quality_improvement_grant.htm NIEA Challenge Fund (2012 & 2013) promoted through CSG meeting,
	NIEA website and mailing lists. Further information available at http://www.nienvironmentlink.org/

	 Water Environment Community Awards promoted through CSG meeting, NIEA website and mailing list.
Observation of nitrate trends in groundwater and liaison with research partners for further investigation	Nitrates monitoring is carried out as part of the surveillance and operational monitoring programmes carried out by NIEA. As NIEA does not fund any research directly it can only encourage research institutions in certain topics. At present NIEA is not aware of any groundwater nitrates research projects.
Promote public participation by encouraging local projects through the Water Environment Community Awards	Water Environment Community Awards promoted through CSG meeting, NIEA website and mailing list.
	2012 Winner in the Bush & Glens CSG Area – Larne High School was awarded £1000 to create a garden with a pond in the school grounds to attract wildlife and provide an environmental education resource for the pupils and raise awareness of water quality issues in the wider community.
	In 2011, Environment Minister Alex Attwood presented nine community groups £1,000 each for their environmental improvement projects on 26 th May. The winner in the Bush & Glens area was the Causeway Coast and Glens Heritage Trust for their 'Water of Life' project. A primary school from Armoy became 'water detectives' to report on the river from its source at Slieveanorra to the sea at Portballintrae.
Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide an open forum for discussion of water issues. Encourage involvement in developing and implementing the Glens & Rathlin Local Management Area Plan	Meetings held - 14 th October 2010 - 19 th April 2011 - 18 th October 2011 - 25 th April 2012 - 10 th October 2012 - 1 st May 2013 - 17 th October 2013 Presentations and notes of meetings can be found at <u>http://www.doeni.gov.uk/niea/water-</u> <u>home/wfd/public partic 3/catchment stakeholder groups/bush and glens.htm</u>
Promote public participation by raising awareness of catchment management issues by release of relevant press articles and web publication of Bush & Glens e-zine	 5 issues of the Bush e-zine have been published on the NIEA website and circulated to the Bush & Glens CSG electronic mailing list. E-zines can be viewed at <u>http://www.doeni.gov.uk/niea/water-</u>

Promote public participation by raising awareness of The Rivers Trust	 home/wfd/public partic 3/Ima e-newsletters.htm NIEA staff support a number of local groups, providing advice and guidance as required and attend events to raise awareness of the water environment: Stands provided at Balmoral Show 2011, 2012, 2013 Greenmount Centenary Show 16- 17 June 2013 Horticulture 2012 at Greenmount 9 September 2012 (focusing on pesticide awareness and water quality issues) Stand providing information on river basin management plans, local management area action plans and displays of 'good bugs/bad bugs'. Bushmills Salmon Station Open Day 8 July 2011 Water Detectives, Portballintrae 24 June 2011 Bushmills Salmon and Whiskey Festival 10 September 2013 Armoy Environment Day 23 July 2013 Bushmills Salmon and Whiskey Festival 10 September 2013 Kivers Trusts have been set up in Northern Ireland – Ballinderry, Six Mile Water, River Roe, Blackwater, Maine and River Lagan. Discussions are ongoing with other organisations that have expressed an interest in setting up Trusts. A Partnership Agreement was formed between the Rivers Trust and NIEA in 2010, and NIEA continues to fund a Northern Ireland Development Officer, Mark Horton. Mark can be contacted at The Rivers Trust, c/o
	Ballinderry River Enhancement Association, 231a Orritor Road, Cookstown, BT80 9ND. Telephone: 028 867 61515. E-mail: <u>mark@theriverstrust.org</u>
Promote the control of invasive alien species on farmland	Control is promoted through the DARD Northern Ireland Countryside Management Scheme (NICMS). Funding is available to progress around 1000 applications for admission to the scheme in January 2012, with a further 1300 joining in January 2013.
Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage	 Official launch of new signage initiative by NIEA Chief Executive, Enler Anglers and Castlereagh Borough Council Countryside Access Officer – 18th April 2012. 'NIEA & Water Pollution – Improving Water Quality' postcards produced to raise awareness on the role of the NIEA Regional

	Operations team and who to contact in the event of a pollution incident. These have been distributed at a number of events and shows. The pollution hotline number is promoted frequently on NIEA facebook and Twitter website. Stakeholders are requested to forward their suggestions for sign locations to Devina Park.
Raise awareness and promote the benefits of effective farm nutrient and waste management	 'Landowner Awareness – Improving water quality in your local area' leaflet developed jointly with Loughs Agency, UFU and DARD to raise awareness amongst landowners. Annual presentation to CAFRE students on Water Framework Directive and water quality issues related to agriculture.
	'NIEA & Water Pollution – Improving water quality' postcards produced to raise awareness on the role of the NIEA Regional Operations team and who to contact if water pollution is observed.
	All applicants to DARD agri-environment schemes receive farm waste management advice as part of their application to the scheme. DARD has produced a'Code of Good Agricultural Practice' which contains practical management advice on how farm wastes can be collected, stored and spread with minimal risk to the environment. DARD has also developed an agri- environment training course for farmers dealing with farm wastes and nutrient management planning. LMA Cross Compliance Inspections and referrals carried out by NIEA Agricultural Regulations Team. 'Water Quality in Action' article published in Farming Life October 2012.
Review of groundwater abstraction and planning applications where necessary	NIEA Groundwater Team respond to consultations on groundwater abstractions and planning applications across Northern Ireland.
Support local environmental initiatives by working with and supporting the Causeway Coast and Glens Heritage Trust in raising awareness of environmental issues and projects. Seek to identify solutions to water management problems and develop and promote the Glens & Rathlin Action Plan	NIEA staff sit on the steering group for the Heart of the Glens Landscape Partnership Scheme, and provide support for the development of projects aiming to improve water quality and increased awareness of the water environment.
Support local environmental initiatives by supporting the Causeway Coast and Glens Heritage Trust's development and implementation of the Antrim Coast and Glens AONB (Area of Outstanding Natural Beauty) Management Plan.	NIEA staff provide comments and support the development of actions.

Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink'.	NIEA supports the inclusion of pollution prevention messages in information leaflets and other literature e.g. 'Using Pesticides – Stop & think about the water you drink'. NIEA in conjunction with Northern Ireland Water has produced an information leaflet to highlight the dangers of pesticides around waterways and the potential impacts on wildlife and drinking water. Encourage support through publishing 'Householder Awareness – Improving Water Quality in Your Local Area' and 'Landowner Awareness' leaflets. Raise awareness of Northern Ireland Water's 'Dirty Dozen' campaign.	
Assess sources of organic pollution including agriculture,	Water Management Unit water quality planning staff completed a	
WWTW and septic tanks	comprehensive desktop study and risk analysis of pressures in the catchment.	
•	Data analysis included historical monitoring data (biology/chemistry),	
	occurrence of pollution incidents, land-use, run-off risk, soil type and soil	
	cohesion. Thirty-two additional biological monitoring sites were identified. The	
	results of this additional monitoring were used to inform river walk selections.	
Conduct biological investigations to assess aquatic	Additional biological monitoring has been completed at 32 sites in the Glens	
invertebrates	LMA:	
	Tow River – 9 sites	
	Carey River – 3 sites Glenmakeeran – 4 sites	
	Glendun – 4 sites	
	Glenaan – 4 sites	
	Glenariff – 2 sites	
	Glencloy – 4 sites	
	Ballygally – 2 sites	
Carry out a river walk to determine and address sources of	River walks have been carried out in the following water bodies:	
organic pollution affecting aquatic invertebrates and resulting	Glenariff River (3027) – November 2011, February & June 2012	
in low biotic scores and/or observed sewage fungus	Glendun River (3015) - February 2012	
	Glencloy River (3061) – March 2012	
	Glenaan River (3024) – March 2012	
	Tow River (3033) – March & April 2012	
	Ballygally Burn (3011) – May & June 2012	
	Carey River (3018) – May 2012, May 2013	
1	Glenmakeeran River (3017) – April 2013	

Assess forestry operations. Ascertain felling programmes in the catchment and engage with forestry technical staff to ensure measures are in place to mitigate risks from felling	Bilateral meeting to be organised.
Provide advice on protected area designations	Water Management Unit responses submitted to Natural Heritage section for the internal consultation on the proposal for a draft management scheme for the Rathlin Island European Marine Site.
Carry out a full RHAT (River Hydromorphological Assessment Technique)	Assessments are scheduled for the Carey River, Ballyemon River, River Dall
Carry out fish monitoring and assessment to determine juvenile Atlantic salmon recruitment under the NASCO Treaty	DCAL/AFBI monitoring carried out at 32 sites on the Glendun River.
Obtain data on reservoir/lake levels, catchment flows and transfers of water from other water body sources to inform the review of the current abstraction/impoundment licence at Dungonnell Reservoir/Inver River. Agree monitoring plans and include details on augmented flows returned to the waterway below Dungonnell. Review the current abstraction licence to finalise maximum abstraction volumes, take account of seasonal variations and ensure the ecological need for compensation flows are fully considered at Dungonnell Reservoir/Inver River	An initial desktop study was carried out to determine the hydrological impacts of the impounding reservoir at Dungonnell and the associated abstraction intakes, including the Inver River. During a site visit, a spot gauging was used to determine flows downstream of the impoundment.
Carry out monitoring and assessment to determine potential sources of faecal contamination and impacts on water quality	Investigative studies are on-going at Waterfoot, Ballygally and Brown's Bay Bathing Waters and microbiological monitoring has been completed in the bathing water catchments. Brown's Bay Following a desktop study to identify potential sources of microbial contamination, 3 monitoring rounds were carried out (Nov, Dec 2011, May 2012 and Nov 2012). High counts observed along the entire length of the catchment. Initial results indicate that agricultural sources are main source. Follow up visits to 2 farms visits on 2 occasions have been carried out by agricultural regulations & WQIs. Mitigation measures to prevent further pollution have been completed at both sites. Stream re-inspected (April 2012) and water quality appears to have improved, with no evidence of sewage fungus. An initial assessment of septic tanks within the immediate Brown's Bay area has been carried out. A desktop study was used to identify dwelling that are not connected to the mains sewerage system, and to determine septic

	tanks systems that have not been consented by NIEA. Site visits have been conducted to assess the unconsented systems. Householders were contacted in January 2012 to advise of the need for consent and appropriate treatment. Ballygally Following a desktop study to identify potential sources of microbial contamination, 2 monitoring rounds were carried out (Oct & Dec 2011). Initial results indicate that the main source is sewage. Site visits carried out (26 th Jan, 2012). 2 farms visited by Agricultural Regulations & WQIs. Mitigation measures carried out include concreting yard, installation of diverter pipes and installation of dirty water tank. Waterfoot Following a desktop study to identify potential sources of microbial contamination, 3 monitoring rounds were carried out (Sept & Oct 2011, May 2012). Initial results indicate that the main inputs are agricultural in nature. River walk carried out on main channel and small stream to the north of the beach (Feb 2012). Inspections by Agricultural Regulations team are scheduled for 2 farms. The 4 th 'Good Beach' summit was held on the 3 rd October 2012 by NI Environment Minister, Alex Attwood. Bathing waters quality results are available at http://www.doeni.gov.uk/niea/water-home/quality/bathingqualityni.htm
Upgrading of Wastewater Treatment Works	Rathlin WWTW is due to be upgraded
Develop a profile of the designated bathing water	Bathing water profiles for Ballycastle, Waterfoot, Carnlough, Ballygally and Brown's Bay bathing waters were published on the NIEA website on the 24 th March 2011. Revised profiles were published in May 2013 and can be viewed at <u>http://www.doeni.gov.uk/niea/water-</u> <u>home/quality/bathingqualityni/bathing_water_profiles.htm</u>

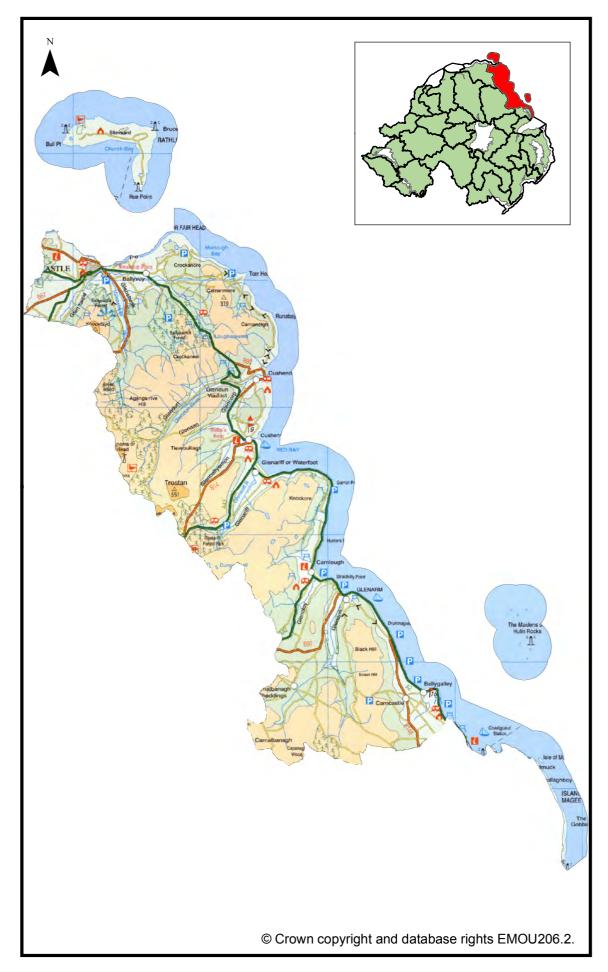
Northern Ireland Environment Agency

Action Plan 2009 - 2015 March 2012

GLENS AND RATHLIN Local Management Area







Introduction

River Basin Management Plans were published in December 2009. The plans describe where the water environment needs to be protected or improved, the timeframe to make these improvements and how that can be achieved. The plans will be implemented through Local Management Areas (LMAs) during the 2009 to 2015 planning cycle. This Glens & Rathlin Local Management Area Action Plan is one of a series of action plans that have been developed for the 26 LMAs across the Neagh Bann, North Western and North Eastern River Basin Districts. The action plan details local measures identified to improve the water environment.

Glens & Rathlin Local Management Area

The Glens & Rathlin LMA (Map 1), part of the North Eastern River Basin District, is comprised of all nine Glens of Antrim and Rathlin Island. The area covers approximately 823 km². The main rivers throughout this area all rise within the Glens and ultimately flow into the North Channel, with the exception of the Glenshesk River which flows into the Atlantic Ocean. The dominant land use is improved grassland, forestry and arable farming. The main towns are Ballycastle to the north, Larne in the south, with a number of small coastal villages scattered between e.g. Cushendun, Cushendall, Glenarm and Carnlough.

The Glens & Rathlin LMA supports important habitats and wildlife. These areas have been designated under European Directives and require special protection. Details of the protected areas are summarised in Table 2 and illustrated in Map 3.

What is the status of the water environment in the Glens & Rathlin LMA?

In 2009, 41.7% of surface water bodies in the Glens & Rathlin LMA (Map 2) were classified as less than good status and 4.2% of these were identified as heavily modified. 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 4 groundwater bodies in this LMA are classified as good for quantitative and chemical status.

The main reason for rivers failing to achieve good status was due to impacts on invertebrate communities associated with organic enrichment. The rivers affected were: Ballygally Burn, Glenmakeeran River, Carey River, Glenaan River, Glenariff River, Tow River and Glencloy River.

Four river water bodies were identified as being affected by changes to morphology (physical habitat) and this was also likely to have had an impact on the invertebrate element. The rivers affected were: Glenmakeeran River, Carey River, Glenaan River and Glencloy River. Five other river water bodies have also been affected by changes to

morphology to a lesser extent. 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 Inver River is a heavily modified water body and is impacted by abstraction and flow regulation due to its use as a drinking water source.

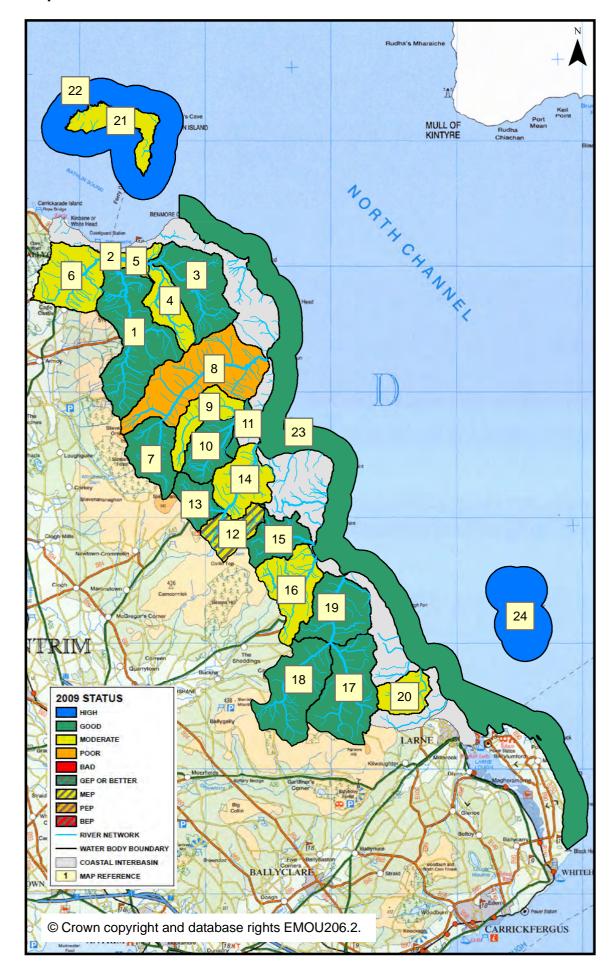
The Glendun River has been classified as poor for fish populations. This water body has two monitoring stations which are used for fish classification; at Knocknacarry Bridge near Cushendun and at Beagh's Bridge on Beagh's Burn. The site on the main Glendun River was classified as high for fish populations but the overall classification was downgraded to poor when the monitoring results for the Beagh's Burn site were included. Beagh's Burn is a short river, measuring approximately 3.4 km from its source to the confluence with the main Glendun River. The gradient along the length of Beagh's Burn is very marked, making it relatively inaccessible for salmon. This, in addition to the ready availability of good quality spawning substrate in the Glendun, has lead to this classification for fish populations.

pH for the Glendun River water body has been classified as moderate. As for fish monitoring, pH is recorded at a site in the main Glendun River and at Beagh's Bridge on the Beagh's Burn. The moderate classification results from the pH values observed on the Beagh's Burn. The Beagh's Burn site is part of the UK Acid Waters Monitoring Network which was set up to provide chemical and biological data on the extent and degree of surface water acidification in the UK uplands. This data is used to monitor the response of aquatic ecosystems to reductions in air pollution. The Beagh's Burn catchment is mainly dominated with blanket peats, with localized mineral soils in the lower areas.

The water environment in Northern Ireland has been impacted by the introduction of invasive alien species. Species already established in the Glens & Rathlin LMA include Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*).

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Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
1	UKGBNI1NE040403039	Glenshesk River	Good	Good	11
2	UKGBNI1NE040403014	Glenshesk River	Good	Good	11
3	UKGBNI1NE040403016	Carey River	Good	Good	11
4	UKGBNI1NE040403017	Glenmakeeran River	Moderate	Good	12
5	UKGBNI1NE040403018	Carey River	Moderate	Good	12
6	UKGBNI1NE040403033	Tow River	Moderate	Good	13
7	UKGBNI1NE040403052	Glendun River	Good	Good	13
8	UKGBNI1NE040403015	Glendun River	Poor	Poor	14
9	UKGBNI1NE040403024	Glenaan River	Moderate	Good	14
10	UKGBNI1NE040403026	Ballyemon River	Good	Good	15
11	UKGBNI1NE040403025	River Dall	Good	Good	15
12	UKGBNI1NE040403064	Inver River	MEP	GEP	16
13	UKGBNI1NE040403062	Glenariff River	Good	Good	16
14	UKGBNI1NE040403027	Glenariff River	Moderate	Good	17
15	UKGBNI1NE040403060	Carnlough River	Good	Good	17
16	UKGBNI1NE040403061	Glencloy River	Moderate	Good	18
17	UKGBNI1NE040403048	Linford Water	Good	Good	18
18	UKGBNI1NE040403045	Owencloghy Water	Good	Good	18
19	UKGBNI1NE040403012	Glenarm River	Good	Good	19
20	UKGBNI1NE040403011	Ballygalley Burn	Moderate	Good	19
21	UKGBNI1NE040401044	Rathlin	Moderate	Good	19
22	UKGBNI6NE020	Rathlin Island	High	High	20

Table 1: 2009 status and proposed objectives (continued)

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
23	UKGBNI6NE030	North Channel	Good	Good	20
24	UKGBNI6NE040	Maiden Islands	High	High	20

What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown in Figure 1. 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.

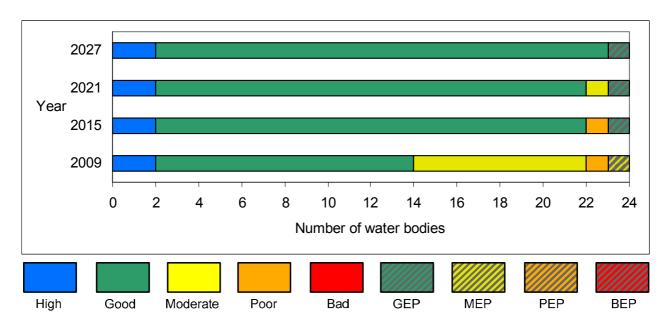


Figure 1: 2009 status and proposed objectives for surface waters in the Glens & Rathlin LMA

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

There are a number of actions which will be implemented in the Glens & Rathlin LMA in order to maintain and improve the water environment. The list of actions that follows includes actions that apply throughout the LMA and also actions that apply to individual water bodies.

The actions below apply throughout the LMA.

	Action to be taken	Action to be taken by	Target Date
1	Carry out freshwater fish monitoring with the aim of completing WFD monitoring at programmed surveillance monitoring stations.	DOE NIEA	Dec 2014
2	Complete desktop study and risk analysis using available catchment data to identify areas under pressure and allow further objective investigations on the ground to be carried out.	DOE NIEA	Completed
3	Complete the phosphorus nutrient budget work for Northern Ireland to establish nutrient inputs from different sectors.	DOE NIEA	Mar 2013
4	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Mar 2015
5	DARD Countryside Management and NIEA to develop leaflets and articles to promote effective farm nutrient and waste management.	DARD Countryside Management Branch	Dec 2015
6	Develop leaflets and articles to promote effective farm nutrient and waste management.	DOE NIEA	Dec 2015
7	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms.	DARD Countryside Management Branch	Dec 2015
8	Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits.	DOE NIEA	Dec 2015
9	Highlight external funding opportunities for water management projects to local partners.	DOE NIEA	Dec 2015
10	Observation of nitrate trends in groundwater and liaison with research partners for further investigation.	DOE NIEA, Geological Survey NI	Dec 2015
11	Promote public participation by encouraging local projects through the Water Environment Community awards.	DOE NIEA	Mar 2013
12	Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide an open forum for discussion on water issues. Encourage involvement in developing and implementing the Glens & Rathlin Action Plan.	DOE NIEA, Bush & Glens Catchment Stakeholder Group	Dec 2015
13	Promote public participation by raising awareness of catchment management issues by release of relevant press articles and web publication of the Bush & Glens e-zine.	DOE NIEA	Dec 2015
14	Promote public participation by raising awareness of The Rivers Trust.	DOE NIEA	Mar 2013
15	Promote the control of invasive alien species on farmland.	DARD Countryside Management Branch	Dec 2015

	Action to be taken	Action to be taken by	Target Date
16	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage.	DOE NIEA	Dec 2015
17	Provide advice on protected area designations including drinking water protected areas, rivers identified as salmonid and nutrient sensitive areas.	DOE NIEA	Dec 2015
18	Raise awareness and promote the benefits of effective farm nutrient and waste management.	DARD Countryside Management Branch	Dec 2015
19	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA, Geological Survey NI	Dec 2015
20	Support local environmental initiatives by working with and supporting the Causeway Coast and Glens Heritage Trust in raising awareness of environmental issues and projects. Seek to identify solutions to water management problems and develop and promote the Glens & Rathlin Action Plan.	DOE NIEA, CCGHT	Dec 2015
21	Support local environmental initiatives by supporting the Causeway Coast and Glens Heritage Trust's development and implementation of the Antrim Coast and Glens AONB (Area of Outstanding Natural Beauty) Management Plan.	DOE NIEA, CCGHT	Dec 2015
22	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)'.	DOE NIEA	Dec 2015

The actions below apply to individual water bodies in the LMA. The 2009 status or ecological potential is shown for each water body.

UKGBNI1NE040403039		Glenshesk River	2009 S	tatus: Good
Action to be taken		Action to be taken	Action to be taken by	Target Date
1	Maintain current regulatory	y controls as water body status is Good or better.	DOE NIEA	Dec 2015
2		ed area designations to work towards improving of Antrim Hills Special Protection Area.	DOE NIEA	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			

 UKGBNI1NE040403014
 Glenshesk River
 2009 Status: Good

 Action to be taken
 Action to be taken by
 Target Date

 1
 Maintain current regulatory controls as water body status is Good or better.
 DOE NIEA
 Dec 2015

 A number of catchment wide actions also apply to this water body. These can be found on Page 9.

U	JKGBNI1NE040403016 Carey River		2009 S	tatus: Good
	Action to	Action to be taken by	Target Date	
1	Maintain current regulatory controls	as water body status is Good or better.	DOE NIEA	Dec 2015
2	Assess forestry operations in Ballypa programme in the catchment and er ensure measures are in place to mit	ngage with forestry technical staff to	DOE NIEA, DARD Forest Service	Mar 2013
3	Provide advice on protected area de the condition assessment of Antrim	signations to work towards improving Hills Special Protection Area.	DOE NIEA	Dec 2015

U	GBNI1NE040403017	Glenmakeeran River	2009 Statu	s: Moderate
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic poll (Glenmakeeran) and septic tar	lution including agriculture, WWTW nks.	DOE NIEA	Mar 2013
2	Conduct biological investigatio of Drumnakeel Bridge.	ns to assess aquatic invertebrates upstream	DOE NIEA	Completed
3	address sources of organic po	n of Drumnakeel Bridge to determine and Ilution affecting aquatic invertebrates and nd/or observed sewage fungus.	DOE NIEA	Sep 2012
4	· · ·	Ballypatrick Forest. Ascertain felling and engage with forestry technical field staff to to mitigate risks from felling.	DOE NIEA, DARD Forest Service	Mar 2013
5	•	ea designations to work towards improving ntrim Hills Special Protection Area.	DOE NIEA	Dec 2015
	A number of catchment wide a	ctions also apply to this water body. These can	be found on Page	9.

۷ł	(GBNI1NE040403018	Carey River	2009 Statu	s: Moderate
	Action to be ta	ken	Action to be taken by	Target Date
1	Assess sources of organic pollution inclue Churchfield Road) and septic tanks.	ding agriculture, WWTW (Ballyvoy,	DOE NIEA	Mar 2013
2	Conduct biological investigations to asses of Carey Mill Bridge.	ss aquatic invertebrates upstream	DOE NIEA	Completed
3	Carry out a river walk on the main channed determine and address sources of organi invertebrates and resulting in low biotic so fungus.	c pollution affecting aquatic	DOE NIEA	Sep 2012
4	Carry out full RHAT assessment to deter	nine morphological condition.	DOE NIEA	Dec 2013
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			9.

Uł	KGBNI1NE040403033 Tow Rive	r 2009 Statı	us: Moderate
	Action to be taken	Action to be taken by	Target Date
1	Assess sources of organic pollution including agriculture Road, Turraloskin, Capecastle and Ballycastle).	, WWTW (Straid DOE NIEA	Mar 2013
2	Conduct biological investigations to assess aquatic inver main river and tributaries at Drumawillin.	tebrates on the DOE NIEA	Completed
3	Carry out a river walk upstream of Ballycastle to determine sources of organic pollution and elevated levels of bioch- demand affecting aquatic invertebrates and resulting in le and/or observed sewage fungus.	emical oxygen	Sep 2012

Uł	(GBNI1NE040403052	Glendun River	2009 S	tatus: Good
	Actio	n to be taken	Action to be taken by	Target Date
1	Maintain current regulatory con	trols as water body status is Good or better.	DOE NIEA	Dec 2015
2		ssessment at 7 locations to determine ment under the NASCO Treaty.	DCAL	Mar 2013
3		tiatives by supporting the Glens Angling Club as Heritage Trust in environmental projects.	DOE NIEA, Glens Angling Club, CCGHT	Mar 2012
4	•	ea designations to work towards improving ntrim Hills Special Protection Area.	DOE NIEA	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			

U	GBNI1NE040403015	Glendun River	2009 \$	Status: Poor
	Action	to be taken	Action to be taken by	Target Date
1	Conduct biological investigations of Dunouragan and on main river	to assess aquatic invertebrates upstream at Clady Bridge.	DOE NIEA	Completed
2	Carry out fish monitoring and ass juvenile Atlantic salmon recruitme	essment at 25 locations to determine ent under the NASCO Treaty.	DCAL	Mar 2013
3		corp River upstream of Dunouragan to of organic pollution resulting in low biotic	DOE NIEA	Sep 2012
4		eveanorra Forest. Ascertain felling I engage with forestry technical field staff to mitigate risks from felling.	DOE NIEA, DARD Forest Service	Mar 2013
5	Provide advice on protected area the condition assessment of Antri	designations to work towards improving im Hills Special Protection Area.	DOE NIEA	Dec 2015
	A number of catchment wide activ	ons also apply to this water body. These car	n be found on Page	<u>9.</u>

۷ł	(GBNI1NE040403024	Glenaan River	2009 Statu	is: Moderate
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollo (Knocknatavanna) and septic ta	ution including agriculture, WWTW anks.	DOE NIEA	Mar 2013
2	Conduct biological investigation of Cloghs Bridge.	ns to assess aquatic invertebrates upstream	DOE NIEA	Completed
3		o of Cloghs Bridge to determine and address ecting aquatic invertebrates and resulting in ed sewage fungus.	DOE NIEA	Sep 2012
4		ea designations to work towards improving htrim Hills Special Protection Area.	DOE NIEA	Dec 2015
	A number of catchment wide a	ctions also apply to this water body. These car	n be found on Page	<u>9.</u>

UKGBNI1NE040403026		Ballyemon River	2009 S	tatus: Good
	Action	to be taken	Action to be taken by	Target Date
1	Maintain current regulatory contr	ols as water body status is Good or better.	DOE NIEA	Dec 2015
2	Provide advice on protected area designations to work towards improving the condition assessment of Antrim Hills Special Protection Area.		DOE NIEA	Dec 2015
3	Carry out full RHAT assessment	to determine morphological condition.	DOE NIEA	Mar 2013
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			

UKGBNI1NE040403025		River Dall	2009 S	tatus: Good
	Action to be taken		Action to be taken by	Target Date
1	Maintain current regulator	y controls as water body status is Good or better.	DOE NIEA	Dec 2015
2	Carry out full RHAT asses	ssment to determine morphological condition.	DOE NIEA	Dec 2013
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			<u>9.</u>

Uk	GBNI1NE040403064 Inver River	2009 \$	Status: MEP
	Action to be taken	Action to be taken by	Target Date
1	Obtain data on reservoir / lake levels, catchment flows and transfers of water from other water body sources to inform the review of the current abstraction / impoundment licence at Dungonnell Reservoir/Inver River. Agree monitoring plans and include details on augmented flows returned to the waterway below Dungonnell.	DOE NIEA	Mar 2019
2	Review the current abstraction licence to finalise maximum abstraction volumes, take account of seasonal variations and ensure the ecological need for compensation flows are fully considered at Dungonnell Reservoir/Inver River.	DOE NIEA	Dec 2019
3	Provide advice on protected area designations to work towards improving the condition assessment of Antrim Hills Special Protection Area.	DOE NIEA	Dec 2015
4	Provide advice on protected area designations to work towards improving the condition assessment of Garron Plateau Special Area of Conservation.	DOE NIEA	Dec 2015
5	Assess forestry operations in Glenariff Forest. Ascertain felling programme in the catchment and engage with forestry technical field staff to ensure measures are in place to mitigate risks from felling.	DOE NIEA, DARD Forest Service	Mar 2013
	A number of catchment wide actions also apply to this water body. These car	n be found on Page	<u>9.</u>

U	KGBNI1NE040403062	Glenariff River	2009 Status: Goo	
	Actio	n to be taken	Action to be taken by	Target Date
1	Maintain current regulatory con	trols as water body status is Good or better.	DOE NIEA	Dec 2015
2		ea designations to work towards improving trim Hills Special Protection Area.	DOE NIEA	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 9.				9.

Uł	GBNI1NE040403027	Glenariff River	2009 Stat	us: Moderate
	Act	ion to be taken	Action to be taken by	Target Date
1		ollution including agriculture, WWTW ng stations (Glenariff Road, Waterfoot) a	DOE NIEA nd	Mar 2013
2	Conduct biological investigati of Callisnagh Bridge.	ons to assess aquatic invertebrates upst	ream DOE NIEA	Completed
3	address sources of organic p	am of Callisnagh Bridge to determine and ollution affecting aquatic invertebrates ar and/or observed sewage fungus.		Sep 2012
4		essment to determine potential sources o pacts on water quality at Waterfoot Bathir		Sep 2012
5		area designations to work towards improv Antrim Hills Special Protection Area.	ving DOE NIEA	Dec 2015
6		area designations to work towards impro Garron Plateau Special Area of Conserva		Dec 2015
7		Glenariff Forest. Ascertain felling progra with forestry technical field staff to ensur gate risks from felling.		Mar 2013
	A number of catchment wide	actions also apply to this water body. Th	ese can be found on Pag	<u>e 9.</u>

U	KGBNI1NE040403060	Carnlough River	2009 S	Status: Good
	Action	to be taken	Action to be taken by	Target Date
1	Maintain current regulatory contr	ols as water body status is Good or better.	DOE NIEA	Dec 2015
2	Provide advice on protected area the condition assessment of Antr	a designations to work towards improving im Hills Special Protection Area.	DOE NIEA	Dec 2015
3		a designations to work towards improving ron Plateau Special Area of Conservation.	DOE NIEA	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			

Uł	(GBNI1NE040403061	Glencloy River	2009 Status: Moderate	
	Action t	o be taken	Action to be taken by	Target Date
1	Assess sources of organic pollution	n including agriculture and septic tanks.	DOE NIEA	Mar 2013
2	Conduct biological investigations t Bridge, the Ballymena Road Bridg	o assess aquatic invertebrates at Glencloy e, Doonan Water and Doonan.	DOE NIEA	Completed
3	Cregcattan to determine and addr	channel and tributaries at Galdanagh and ess sources of organic pollution affecting g in low biotic scores and/or observed	DOE NIEA	Sep 2012
4	Provide advice on protected area the condition assessment of Antrir	designations to work towards improving n Hills Special Protection Area.	DOE NIEA	Dec 2015
5	•	designations to work towards improving on Plateau Special Area of Conservation.	DOE NIEA	Dec 2015
	A number of established wide setio	ins also apply to this water body. These cap	bo found on Page	0

A number of catchment wide actions also apply to this water body. These can be found on Page 9.

UKGBNI1NE040403048		Linford Water	2009 Status: Goo	
	Ad	ction to be taken	Action to be taken by	Target Date
1	Maintain current regulatory	controls as water body status is Good or better.	DOE NIEA	Dec 2015
2		area designations to work towards improving f Antrim Hills Special Protection Area.	DOE NIEA	Dec 2015

A number of catchment wide actions also apply to this water body. These can be found on Page 9.

U	GBNI1NE040403045	Owencloghy Water	2009 Status: Go	
	Actic	on to be taken	Action to be taken by	Target Date
1	Maintain current regulatory cor	ntrols as water body status is Good or better.	DOE NIEA	Dec 2015
2		ea designations to work towards improving ntrim Hills Special Protection Area.	DOE NIEA	Dec 2015

UKGBNI1NE040403012		Glenarm River	2009 S	2009 Status: Good	
		Action to be taken	Action to be taken by	Target Date	
1	Maintain current regulate	ory controls as water body status is Good or better.	DOE NIEA	Dec 2015	
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.				

Uł	(GBNI1NE040403011 B	allygalley Burn	2009 Statu	s: Moderate
	Action to be take	en	Action to be taken by	Target Date
1	Assess sources of organic pollution includir discharges and septic tanks.	ng agriculture, intermittent	DOE NIEA	Mar 2013
2	Conduct biological investigations to assess and at the bridge on the Cairncastle Road.	aquatic invertebrates at Millvale	DOE NIEA	Completed
3	Carry out a river walk on the main channel McKillop's Bridge and Millvale to determine pollution affecting aquatic invertebrates and and/or observed sewage fungus.	and address sources of organic	DOE NIEA	Sep 2012
4	Carry out monitoring and assessment to de faecal contamination and impacts on water Water protected area.	•	DOE NIEA	Sep 2012
	A number of catchment wide actions also a	pply to this water body. These can	be found on Page	<u>9.</u>

U	KGBNI1NE040401044	Rathlin	2009 Sta	tus: Moderate
	Acti	ion to be taken	Action to be taken by	Target Date
1		ollution including agriculture, WWTW (Rathli eptic tanks (domestic and private).	in), DOE NIEA	Mar 2013
2	Upgrading of WWTW - Rathl	in WWTW.	NIWL	Dec 2013
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.			

UKGBNI6NE020		Rathlin Island	2009	2009 Status: High	
		Action to be taken	Action to be taken by	Target Date	
1	Maintain current reg	gulatory controls as water body status is Good or better.	DOE NIEA	Dec 2015	
2		protected area designations to maintain the favourable ant of Rathlin Island Special Protection Area and Rathlin of Conservation.	DOE NIEA	Dec 2015	

Uł	KGBNI6NE030	North Channel	2009 \$	Status: Good
	A	Action to be taken	Action to be taken by	Target Date
1	Maintain current regulatory	controls as water body status is Good or better.	DOE NIEA	Dec 2015
2		assessment to determine potential sources of mpacts on water quality at Ballygalley, Brown's g Water protected areas.	DOE NIEA	Sep 2012
3	Develop a profile of the de Brown's Bay, Carnlough ar	signated bathing water at Ballycastle, Ballygalley, nd Waterfoot.	DOE NIEA	Mar 2012
4		ed area designations including Ballycastle, Carnlough and Waterfoot bathing water protected	DOE NIEA	Dec 2015
	A number of catchment wi	de actions also apply to this water body. These ca	n be found on Page	<u>e 9.</u>

UKGBNI6NE040		Maiden Islands	2009	9 Status: High	
		Action to be taken	Action to be taken by	Target Date	
1	Maintain current regula	tory controls as water body status is Good or better.	DOE NIEA	Dec 2015	
	A number of catchment wide actions also apply to this water body. These can be found on Page 9.				

What other measures are being implemented to maintain and improve the water environment in the Glens & Rathlin LMA?

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.

Supplementary Measures are a number of Northern Ireland wide measures which were agreed by all relevant Departments and Agencies in Northern Ireland including DCAL, DARD, DOE, DRD, NIEA, Loughs Agency and Northern Ireland Water Ltd and published as part of the River Basin Management Plans. Supplementary measures have been identified for the following sectors:

- Abstraction and flow regulation;
- Diffuse and point source (Agriculture, Collection & treatment of sewage, Urban Development, Forestry, Industry and other business, Waste);

- Freshwater Morphology and Marine Morphology;
- Invasive Alien Species; and
- Other.

Progress on the implementation of these supplementary measures listed in the River Basin Management Plans will be reported to the European Commission in December 2012. This LMA action plan forms one of the supplementary measures for the North Eastern River Basin District and includes a number of others where relevant.

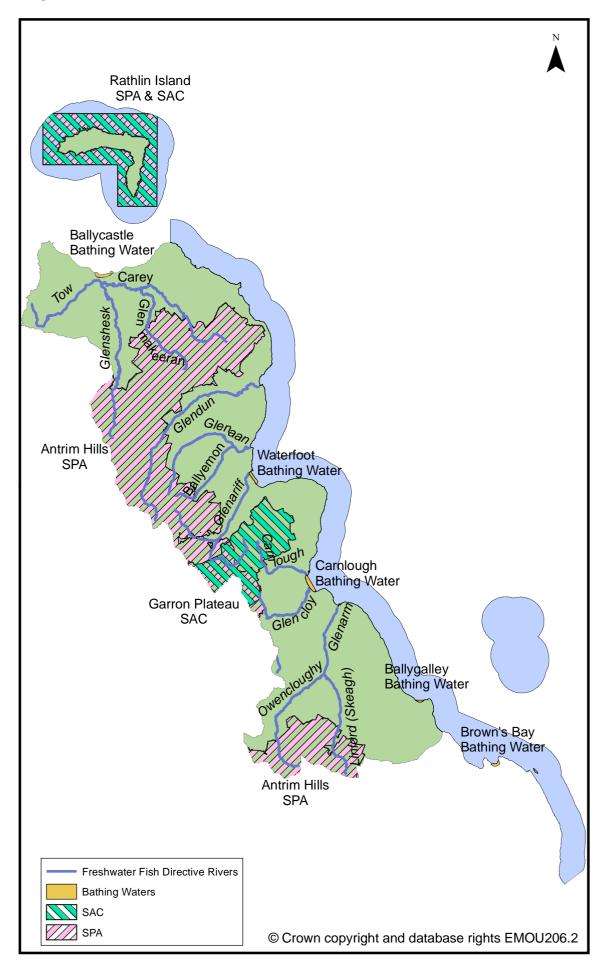
What measures are agreed for water dependent Natura 2000 sites in unfavourable condition?

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 Special Area of Conservation and Rathlin Island Special Protection Area are in favourable condition. Garron Plateau Special Area of Conservation is in unfavourable condition. The condition of all the features of the Antrim Hills Special Protection Area has not been assessed.

Further details on Special Areas of Conservation and Special Protection Areas in the Glens & Rathlin LMA are available in the protected areas section of the website.

Map 3: Protected Areas in Glens and Rathlin LMA



Protected Areas in the Glens & Rathlin

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 Table 2 and illustrated in Map 3.

Table 2: Protected Are	eas in the Glens	& Rathlin LMA
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Protected Area Type	Location
Waters used for the abstraction of drinking water (drinking water protected areas)	There is 1 drinking water protected river. There are 4 drinking water protected groundwaters.
Areas designed to protect economically significant aquatic species Freshwater Fish Directive (78/659/EEC)	There are 147 km of rivers identified under the Freshwater Fish Directive, all designated Salmonid.
Shellfish Waters Directive (79/923/EC)	There are no designated shellfish waters in this area.
Bathing Waters These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)	There are 5 identified bathing waters; Ballycastle, Ballygalley, Brown's Bay, Carnlough and Waterfoot.
Nutrient Sensitive Areas Areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC) and the Nitrates Directive (91/676/EEC)	There are no Urban Waste Water Treatment Directive sensitive areas. A total territory approach has been adopted in Northern Ireland for the Nitrates Directive.
Areas designated for the protection of habitats or species (Natura 2000 sites) 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. Habitats Directive (92/43/EEC)	There are 2 water dependent Special Areas of Conservation: Rathlin Island and Garron Plateau.
Birds Directive (79/409/EEC)	There are 2 water dependent Special Protection Areas: Rathlin Island and Antrim Hills.

Abbreviations

Term	Explanation
CCGHT	Causeway Coast and Glens Heritage Trust
DARD	Department of Agriculture and Rural Development
DCAL	Department of Culture, Arts and Leisure
DOE	Department of the Environment
DRD	Department for Regional Development
EP	Ecological Potential – the status of a heavily modified water body measured
	against the maximum ecological quality it could achieve given the constraints
	imposed upon it by those heavily modified characteristics necessary for its use.
	There are four classes for the status of heavily modified water bodies: good
	ecological potential or better (GEP), moderate ecological potential (MEP), poor
	ecological potential (PEP) and bad ecological potential (BEP).
NASCO	North Atlantic Salmon Conservation Organisation
NIEA	Northern Ireland Environment Agency
NIWL	Northern Ireland Water Limited
RHAT	River Hydromorphological Assessment Technique
WWTW	Waste Water Treatment Works

Working together to implement the Local Management Area Action Plan

If you would like to get involved, find out more about the plans, or are carrying out work that will assist in protecting the water environment, let us know at the Glens & Rathlin Catchment Stakeholder Group meetings or by contacting the Catchment Management Officer, Devina Park.

Email: <u>Devina.Park@doeni.gov.uk</u>

Telephone: 028 92 623229

Further details are available at www.doeni.gov.uk/niea/ne-workingtogether

Water Pollution Hotline:

*Freephone 0800 80 70 60

This line is manned 24 hours a day, 7 days a week. *Mobile calls are charged at standard network rates.

If you become aware of a water pollution incident please call the Water Pollution Hotline in confidence giving the location and nature of the pollution.



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

Northern Ireland Environment Agency Water Management Unit 17 Antrim Road Lisburn BT28 3AL T. (028) 9262 3004 www.doeni.gov.uk/niea



