Significant Water Management Issues

Moyola Local Management Area Action Plan and Update

December 2013







The Moyola Local Management Area (LMA) Action plan published to NIEA website

- These LMA action plans are working documents which will evolve as new projects are committed to over time during the River Basin Planning cycle
- This summary provides an update on operational actions in the LMA. Many actions are based on implementation meetings with Lower Bann Catchment Stakeholder Group members in 2012/2013
- If you, as an individual or organisation, can input additional information on actions or projects in the Upper Bann Action Plan please contact your Catchment Management Officer.

	LMA Action	Action taken by	Details of Action
1	Review the relevance of nutrient budget in the context of this LMA to establish relative nutrient inputs from agriculture, industry and sewage discharges.	DOE NIEA	SIMCAT model is being used to look at inputs of nutrients and sources
2	Promote public participation by encouraging the formation of the "Moyola River Trust" through the Rivers Trust Development Officer.	DOE NIEA	Work ongoing to investigate the possibility of forming a Rivers Trust on the Moyola.
3	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage at targeted sites throughout the LMA.	DOE NIEA	Moyola Angling Club has put the pollution hotline number on all their signage.
4	Support local environmental initiatives which improve the water environment.	DOE NIEA	 Attended Sperrins Gateway spring event. Attended Moyola Angling Club family event on September 2013.
5	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)' to increase awareness of key issues.	DOE NIEA	Mail drop to landscape contractors within the catchment reminding them of their responsibilities when disposing of waste.
6	Carry out agricultural advisory site visits in response to issues raised through river walks, spot checks, or as identified by stakeholders.	DOE NIEA	Agricultural visits related to outcomes of river walks.
7	Review Rivers Agency's annual watercourse maintenance program to assess for potential ecological	NIEA with RA	Numerous meetings with Rivers Agency looking towards a sustainable means of flood alleviation within the Moyola catchment.

	LMA Action	Action taken by	Details of Action
	impacts within the LMA.		
8	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Complete – water available in all water bodies bar two.
9	Promote public participation in the River Basin Planning process by hosting bi-annual Catchment Stakeholder Group meetings, holding bi-lateral meetings with groups and individuals and the generation of e-zines.	DOE NIEA	CSG meeting on 16 th May and 5 th November 2013, details are available

	LMA Action	Action taken	Details of Action
			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 Agricutural Regulations Team. Water Quality Plans in Action' article published in Farming Life October 2012
12	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms within this LMA.	NIEA, DARD Countryside Management Branch	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. Farms are now selected for inspections under Cross Compliance using a combination of risk factors; these include soil type, hydrology, and water bodies not meeting their objectives.
13	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	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 regime. All licences are assessed through a combination of factors which will determine whether a scheme is environmentally acceptable; however, each scheme is assessed on a site specific basis. The guidance document is linked below: http://www.doeni.gov.uk/niea/guidance_for_run-of_river_hydropower_schemes_in_northern_ireland_pdf460kbpdf
14	Promote best practice in the use of pesticides on farms within the LMA.	NIEA, DARD Countryside Management Branch	Developed leaflet on best practice in the use of pesticides. A webpage to raise public awareness and provide guidance has been produced: http://www.doeni.gov.uk/niea/water-home/wfd/public_partic_3/pesticide_awareness.htm
15	Develop leaflets and articles to promote effective farm nutrient and waste management within the LMA	NIEA, DARD Countryside Management Branch	 Landowner Awareness - Improving water quality in your local area' leaflet developed jointly with Loughs Agency, UFU, DARD to raise awareness amongst landowners. The issues included in this were initially raised through implementation meetings e.g. gravel removal, river litter & plastic litter. Presentation to CAFRE students on Water Framework Directive and water quality issues related to agriculture - April 2011. 'NIEA & Water Pollution - Improving water quality' postcards produced to raise awareness on the role of the NIEA Regional Operation 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 Practise' which contains practical management advice on how farm wastes can be collected,

	LMA Action	Action taken	Details of Action
16	Promote the control of invasive alien species on farmland within the LMA.	NIEA, DARD Countryside Management Branch	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 Agricutural Regulations Team. Water Quality Plans in Action' article published in Farming Life October 2012 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.
17	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA	On-going. The groundwater team is a regular consultee on groundwater abstractions and planning applications for all of Northern Ireland.
18	Observation of nitrate trends in groundwater and liaison with research partners for further investigation.	DOE NIEA Geological Survey NI	Ongoing – All groundwaters within this catchment are classified as "Good".
19	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species within this LMA.	DOE NIEA	Invasives recorded during river walks. Invasives control as part of a water quality award project
20	Complete desktop study and risk analysis using available catchment data to identify areas under pressure and allow further investigations on the ground to be carried out within this LMA.	DOE NIEA	Data scrutiny completed by WMU water quality planners resulting in a comprehensive desktop study and risk analysis. Analysis of local data from different WMU teams, including historical monitoring data (biology/chemistry), occurrence of pollution incidents land use, run-off risk, soil type, soil cohesion etc. Desktop study complimented with additional biological sampling.
21	Carry out monitoring and assessment to collate inventory of Invasive Species; draw information from Centre for Environmental Data and Recording (CEDAR) and Invasive Species Ireland.	DOE NIEA and CEDAR	Invasives recorded during river walks.
22	Carry out compliance assessment - in relation to IPRI (larger industry / agricultural) sites.	DOE NIEA	Sampling ongoing on 5 IPRI sites in the Moyola catchment.
23	Investigate sources of sediment - if feasible; develop a plan to reduce external sediment loading.	DOE NIEA	Developing plan to scope the possibility of rewetting areas of the catchment to allow for flood alleviation. This could impact on sediment balances.
24	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended investigating the possibility of partnership working on restoration and enhancement measures, which may include fish passage, habitat and morphology.	NIEA with RA	Habitat improvement project underway in the catchment at Disert Bridge. Work being carried out by the Moyola Angling Association, with support from NIEA.
25	Provide advice on protected area designations in relation to water dependent Annex 2 species, Annex 5	DOE NIEA	Advise available as required.

	LMA Action	Action taken by	Details of Action
	species and Annex 1 habitats - including Salmon, Otter, Lamprey and Ranunculus rivers.		
26	Offer a farm nutrient and waste management advisory	NIEA, DARD	Ongoing
	visit to farmers following a pollution incident (on referral by NIEA).	Countryside Management	
	~y : \(\(\)_2 \(\)_1	Branch	

Abbreviations (Term_Explanation)
AFBI - Agri-Food and Biosciences Institute
ASSI - Areas of Special Scientific Interest
CCG - Connswater Community Greenway
CAFRE – College of Agriculture, Food & Rural Enterprise
DARD - Department of Agriculture and Rural Development
DOE - Department of the Environment
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 4 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)
GSNI - Geological Survey of Northern Ireland
MSFD - Marine Strategy Framework Directive
NICMS - Northern Ireland Countryside Management Scheme
NIEA - Northern Ireland Environment Agency
PE – Population Equivalent
RHAT – River Hydro morphology Assessment Technique
SAC - Special Areas of Conservation
SPA - Special Protection Areas

WWTW - Waste Water Treatment Works

Dissolved oxygen survey July 2013

Water body name	location	%DO 31/07/2013	temp result 30/07/2013
Grange Water	Clooney Road	87.8	13.1
Grange Water	Grange New Bridge	88.5	13.6
Grange Water	Luney Bridge	7.3	13.8
Grange Water	Roshure Road	90	15
Grange Water	Ballygowan	98.4	13.7
Grange Water	Desertmartin Bridge	96.8	13
Grange Water	Longfield Bridge	96	13.3
Grange Water	Brackagh Road	95.5	13.6
Grange Water	Iniscran Bridge	97	12.9
Back Burn	Widow Steeles Bridge	91.1	14.8
Back Burn	Glenshane Road	94.5	14.9
Back Burn	Mullagh Bridge	95.6	14.4
Coppies Burn	Granias Bridge	103.9	13.8
Coppies Burn	Annaghmore Road	100.3	13.7
Coppies Burn	Killyneese Road	98	13.9
Coppies Burn	Pound Road	90.9	13.7
Coppies Burn	Aughrim Road	90.1	13.5
Coppies Burn	Ballyronan Road	101.4	13.4
Coppies Burn	Killyfaddy Road	89	12.7
Coppies Burn	Ballymogan Road	89.8	12.6

River Walks Spring 2013

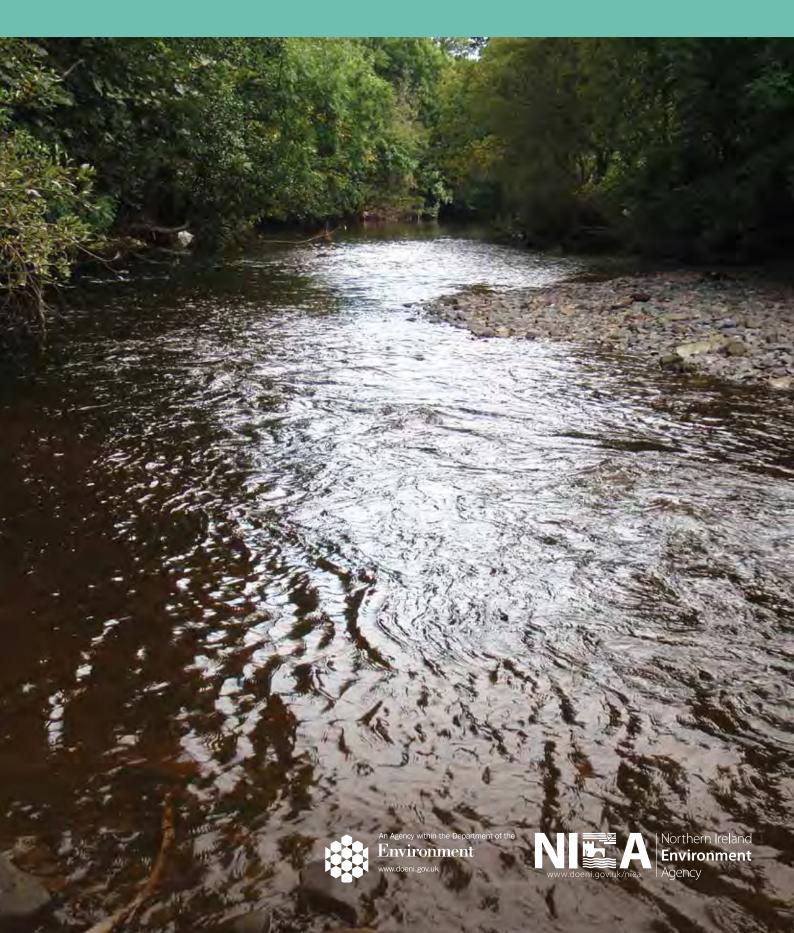
Waterbady name	la marth (lama)	recens for well-		-1-1
Waterbody name	length(km)	reasons_for_walk	comments	status
Moyola River	1.1	aquatic inverts	walk to fork in river and investigate either side of fork	complete
Moyola River	2.6	aquatic inverts	start at derrynoid bridge to Disert Bridge	complete
Moyola river	5	Aquatic inverts	Start at Lisnamuck bridge, finish at weddell bridge	complete
Grange Water	2.7	inverts and macrophyte supression	start at Luney Bridge followin the left hand trib (looking upstream)	complete
Coppies Burn	3.1	ID sources of pollution	Start at bridge on Pound Road to Killyfaddy Road	complete
Back Burn	2.3	investigate "moderate" status	Start at Back Burn New bridge to Coolagh road.	complete
Back Burn	3.5	inverts and macrophyte supression	Widow steeles Bridge through to Mullagh Bridge	complete
Miltown Burn	1.5	Supressed inverts, fish & macrophytes	Fallagloon Burn between Fallylea bridge and Gallywilly bridge	complete
Glengomna	2.5	inverts supression	From Glengomna Bridge to second ford. Check trib	complete



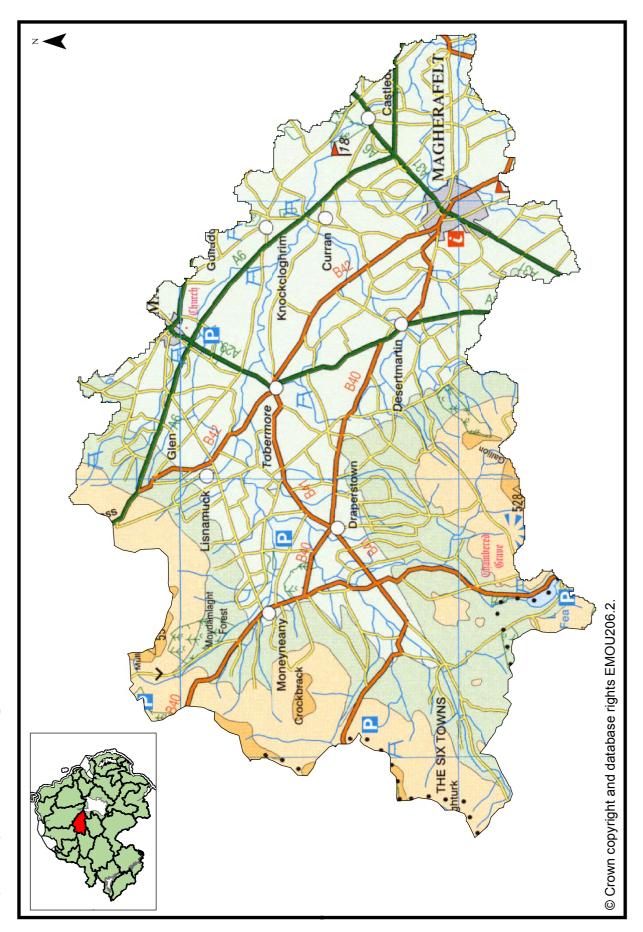
Northern Ireland Environment Agency

Action Plan 2009-2015 March 2013

MOYOLA Local Management Area



Map 1: Moyola 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 Moyola 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.

Moyola Local Management Area

The Moyola LMA (Map 1), part of the Neagh Bann River Basin District, drains into Lough Neagh at Moyola Water Foot and has an area of approximately 313 km². The main river is the Moyola which rises in the Sperrin Mountains in the west and flows eastwards towards Lough Neagh between Ballyronan and Toome. The river joins with a number of significant tributaries such as the White Water, Glengomna River, Altalacky Burn and the Altagoan Burn and supports a wide diversity of natural habitats, several of which are protected. The river also supports a wide range of recreational activities including walking, canoeing and angling.

The main towns are Magherfelt, Castledawson, Draperstown and Tobermore. The main land use is given over to improved grassland plus some forestry and a number of important bogs are present in the catchment.

The western part of the LMA borders the Sperrin Mountains and is included in a region which lies within an Area of Outstanding Natural Beauty.

The Moyola 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 a table at the end of this report.

What is the status of the water environment in the Moyola LMA?

78% of surface water bodies in the Moyola LMA have been classified as less than good status (map 2). Many of the rivers failed to achieve good status due to impacts on invertebrate communities and elevated phosphorus levels.

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 is one groundwater body within the Moyola LMA at Cookstown. This groundwater body is achieving good status.

There was only 1 water body in the area identified as being impacted by abstraction and flow regulation, the White Water. It is known that the impoundment is having an effect on the migration of fish and that there is a hydrological impact on the downstream channel.

In Moyola LMA the main impact was observed in invertebrate and macrophyte communities. The rivers affected were: Moyola, White Water, Grange, Coppies, Back Burn, Glengomna and Milltown.

Five water bodies were identified as affected by changes to morphology (physical habitat). The rivers affected were: Grange, Glengomna, Milltown and Moyola.

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.

White Water (including Lough Fea) and Coppies Burn have been classified as heavily modified.

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:

- Canadian Pondweed (Elodea canadensis)
- Himalayan Balsam (Impatiens glandulifera)
- Japanese Knotweed (Fallopia japonica)
- Giant Rhubarb (Gunnera Spp.)
- Giant hogweed (Heracleum mantegazzianum)



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■ WATER BODY BOUNDARY © Crown copyright and database rights EMOU206.2. 1 MAP REFERENCE RIVER NETWORK MODERATE 2009 STATUS Ballyrona G005 POOR HIGH BAD GEP MEP PEP BEP ramlaght O'Crilly 19 18 **AGHERA** Culnady 16 Moneymore 13 4 12 6 1 Carntoghe Glenshane 2 က 7

Map 2: 2009 status of surface water bodies in Moyola LMA

Table 1: 2009 status and proposed objectives

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
1	UKGBNI1NB030303241	Moyola River	Moderate	Good	10
2	UKGBNI1NB030303210	Glengomna Water	Moderate	Good	11
3	UKGBNI1NB030303227	Douglas River	Good	Good	11
4	UKGBNI3NB0027	Lough Fea	GEP	GEP	12
5	UKGBNI1NB030303005	White Water	MEP	GEP	13
6	UKGBNI1NB030303003	Moyola River	Moderate	Good	14
7	UKGBNI1NB030303006	Moyola River	Moderate	Good	14
8	UKGBNI1NB030303226	Milltown Burn	Moderate	Good	15
9	UKGBNI1NB030303009	Back Burn	Moderate	Good	16
10	UKGBNI1NB030303228	Moyola River	Poor	Moderate	17
11	UKGBNI1NB030303002	Altagoan Burn	Good	Good	18
12	UKGBNI1NB030303004	Keenaght Water	Good	Good	18
13	UKGBNI1NB030303007	Grange Water tributary	Moderate	Good	18
14	UKGBNI1NB030303143	Grange Water	Moderate	Good	19
15	UKGBNI1NB030303167	Back Burn	Poor	Moderate	19
16	UKGBNI1NB030303139	Grange Water	Moderate	Good	20
17	UKGBNI1NB030303008	Grange Water	Moderate	Good	20
18	UKGBNI1NB030303144	Coppies Burn	PEP	MEP	21
19	UKGBNI1NB030303154	Moyola River	Good	Good	22

What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown below. We aim to achieve good status (inc. GEP) or better in 84% of our surface waters and maintain good status in 100% of our groundwaters.

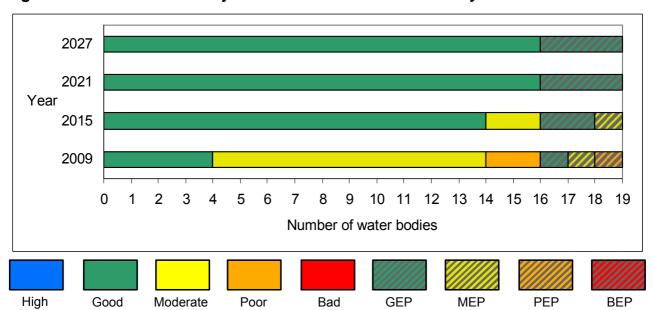


Figure 1. 2009 status and objectives for surface waters in Moyola LMA.

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

There are a number of actions which will be implemented in Moyola LMA in order to maintain and improve the water environment. The list of actions below sets out details of actions to be applied throughout the Moyola LMA. This is followed by specific actions for individual water bodies.

The actions below apply throughout the LMA.

	Action to be taken	Action to be taken by	Target Date
1	Review the relevance of nutrient budget in the context of this LMA to establish relative nutrient inputs from agriculture, industry and sewage discharges.	DOE NIEA	Dec 2015
2	Promote public participation by encouraging the formation of the "Moyola River Trust" through the Rivers Trust Development Officer.	DOE NIEA	Dec 2015
3	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage at targeted sites throughout the LMA.	DOE NIEA	Dec 2015
4	Support local environmental initiatives which improve the water environment.	DOE NIEA	Dec 2015
5	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)' to increase awareness of key issues.	DOE NIEA	Dec 2015
6	Carry out agricultural advisory site visits in response to issues raised through river walks, spot checks, or as identified by stakeholders.	DOE NIEA	Dec 2015
7	Review Rivers Agency's annual watercourse maintenance program to assess for potential ecological impacts within the LMA.	DOE NIEA, DARD Rivers Agency	Dec 2015
8	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Dec 2015
9	Promote public participation in the River Basin Planning process by hosting bi-annual Catchment Stakeholder Group meetings, holding bi-lateral meetings with groups and individuals and the generation of e-zines.	DOE NIEA	Dec 2015
10	Highlight external funding opportunities for water management projects to local partners including the water quality improvement grant.	DOE NIEA	Dec 2015
11	Raise awareness and promote the benefits of effective pollution control and farm nutrient and waste management.	DOE NIEA, DARD Countryside Management Branch	Dec 2015
12	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms within this LMA.	DOE NIEA, DARD Countryside Management Branch	Dec 2015
13	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
14	Promote best practice in the use of pesticides on farms within the LMA.	DOE NIEA, DARD Countryside Management Branch	Dec 2015

	Action to be taken	Action to be taken by	Target Date
15	Develop leaflets and articles to promote effective farm nutrient and waste management within the LMA.	DOE NIEA, DARD Countryside Management Branch	Dec 2015
16	Promote the control of invasive alien species on farmland within the LMA.	DOE NIEA, DARD Countryside Management Branch	Dec 2015
17	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA, Geological Survey NI	Dec 2015
18	Observation of nitrate trends in groundwater and liaison with research partners for further investigation.	DOE NIEA, Geological Survey NI	Dec 2015
19	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species within this LMA.	DOE NIEA	Dec 2015
20	Complete desktop study and risk analysis using available catchment data to identify areas under pressure and allow further investigations on the ground to be carried out within this LMA.	DOE NIEA	Dec 2015
21	Carry out monitoring and assessment to collate inventory of Invasive Species; draw information from Centre for Environmental Data and Recording (CEDAR) and Invasive Species Ireland.	DOE NIEA, CEDAR, Invasive Species Ireland	Dec 2015
22	Carry out compliance assessment - in relation to IPRI (larger industry / agricultural) sites.	DOE NIEA	Dec 2015
23	Investigate sources of sediment - if feasible, develop a plan to reduce external sediment loading.	DOE NIEA	Dec 2015
24	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended investigating the possibility of partnership working on restoration and enhancement measures, which may include fish passage, habitat and morphology.	DOE Rivers Agency, DARD	Dec 2015
25	Provide advice on protected area designations in relation to water dependent Annex 2 species, Annex 5 species and Annex 1 habitats - including Salmon, Otter, Lamprey and Ranunculus rivers.	DOE NIEA	Dec 2015
26	Offer a farm nutrient and waste management advisory visit to farmers following a pollution incident (on referral by NIEA).	DOE NIEA, DARD	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.

Uk	GBNI1NB030303241 Moyola River	2009 Status:	Moderate
	Action to be taken	Action to be taken by	Target Date
1	Assess significance of sheep dip usage and review groundwater authorisations where appropriate wihin this water body.	DOE NIEA	Mar 2014
2	Assess forestry operations within the water body. Encourage forest operators to mitigate against activities that could impact upon water quality.	DOE NIEA, DARD Forest Service	Mar 2014
3	Promote riparian zone management.	DOE NIEA	Dec 2015
4	Carry out fish monitoring and assessment within this water body.	DOE NIEA, AFBI, DCAL	Completed
5	Provide advice on protected area designations in respect of Teal Lough SAC. Complete a Habitat Regulations assessment on any proposed plan or project that has potential to cause impacts on the SAC.	DOE NIEA	Mar 2014
6	Promote public participation and awareness of catchment management issues by supporting the Sperrins Gateway Landscape Partnership.	DOE NIEA	Mar 2014
7	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species - focused upon species likely to impact on water quality.	DOE	Mar 2015
8	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms.	DOE NIEA	Dec 2015
9	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended - focused on barrier posed by composite weir at Owenreagh Bridge for movement of organic matter, sediment and fish.	DOE NIEA	Mar 2015
	A number of catchment wide actions also apply to this water body. These can	be found on Page 8	

UKGBNI1NB030303210		Glengomna Water	2009 Statu	s: Moderate
	Act	tion to be taken	Action to be taken by	Target Date
1	Assess significance of sheep authorisations where appropriate	o dip usage and review groundwater riate within this water body.	DOE NIEA	Mar 2014
2		sessment upstream of monitoring station on mna Bridge to investigate failures in aquatic	DOE NIEA	Mar 2014
3	Carry out full RHAT assessm Technique) within this water	nent (River Hydromorphology Assessment body.	DOE NIEA	Mar 2015
4	Carry out a river walk upstreato investigate failures in aqua	am of monitoring station at Glengomna Bridge atic invertebrates.	DOE NIEA	Mar 2014
5	Carry out agricultural advisor river walks.	y site visits where necessary, as identified in	DOE NIEA	Mar 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.			8.

Uł	(GBNI1NB030303227	Douglas River	2009 S	tatus: 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
2	Assess significance of sheep dip usag authorisations where appropriate within		DOE NIEA	Mar 2014
3	Assess forestry operations in forest areas Moydamlaght Forest and Derrynoyd Forest. Engage with Forestry Staff to promote mitigation measures in felling plans to protect water quality.		DOE NIEA, DARD Forest Service	Dec 2015
	A number of catchment wide actions a	lso apply to this water body. These car	n be found on Page	8.

UŁ	GBNI3NB0027 Lough Fea	2009 \$	Status: GEP
	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	Mar 2014
2	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended in the HMWB Report.	DOE NIEA, NIWL	Mar 2014
3	Promote environmental best practice to carry out a pilot study to investigate the ecological impacts of hydro-morphology pressures in this HMWB to inform appropriate mitigation measures.	DOE NIEA	Mar 2014
4	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.	DOE NIEA	Mar 2015
5	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes.	DOE DWI	Dec 2015
6	Support local measures that will improve water quality, in particular, reduction in the presence of pesticides and the levels of organic matter in raw water which cause implications for water treatment.	DOE DWI	Dec 2015
7	Carry out monitoring and assessment - assess data from monitoring buoy to determine specific in-lake pressures and impact of dam to downstream rive		Mar 2014
	A number of catchment wide actions also apply to this water body. These ca	an be found on Page	8.

UK	GBNI1NB030303005 White Water	2009 St	tatus: MEP
	Action to be taken	Action to be taken by	Target Date
1	Assess sources of organic pollution from high density of septic tanks within this water body.	DOE NIEA	Dec 2015
2	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Mar 2015
3	Assess forestry operations - engage with forestry technical staff to promote appropriate mitigation measures in felling plans to reduce impacts on water quality.	DOE NIEA, DARD Forest Service	Mar 2014
4	Carry out monitoring and assessment to investigate failure of aquatic plants at Whitewater Bridge.	DOE NIEA	Completed
5	Carry out monitoring and assessment to identify ecological impacts of hydormorphology pressures to inform appropriate mitigation measures.	DOE NIEA	Mar 2014
6	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended by the HMWB Report.	DOE NIEA, NIWL	Mar 2014
7	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA, NIWL	Completed
8	Promote environmental best practice to carry out a pilot study to investigate the ecological impacts of hydro-morphology pressures in this HMWB to inform appropriate mitigation measures.	DOE NIEA	Mar 2014
9	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.	NIWL	Mar 2015
10	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes.	DOE DWI	Dec 2015
11	Support local measures that will improve water quality, in particular, reduction in the presence of pesticides and the levels of organic matter in raw water which cause implications for water treatment.	DOE NIEA, DOE DWI	Dec 2015
	A number of catchment wide actions also apply to this water body. These can	oe found on Page 8	<u> </u>

Uł	KGBNI1NB030303003	Moyola River	2009 Status: Moder	
	Action to be taken		Action to be taken by	Target Date
1	Carry out a river walk to investig	ate failures of aquatic invertebrates.	DOE NIEA	Mar 2014
2	Carry out agricultural advisory site visits where necessary, as identified on river walk.		DOE NIEA	Mar 2015
3	3 Promote public participation and awareness of catchment management issues by supporting the Sperrins Gateway Landscape Partnership.		DOE NIEA	Mar 2014
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.		8.	

U	KGBNI1NB030303006 Moyola River	2009 Statu	s: Moderate	
	Action to be taken	Action to be taken by	Target Date	
1	Assess forestry operations - engage with forestry technical staff to promote appropriate mitigation measures in felling plans to reduce impacts on water quality.	DOE NIEA, DARD Forest Service	Mar 2014	
2	Carry out a river walk upstream of monitoring station to investigate failures of aquatic invertebrates.	DOE NIEA	Mar 2014	
3	Carry out agricultural advisory site visits where necessary, as identified on the river walk.	DOE NIEA	Mar 2015	
4	Promote public participation and awareness of catchment management issues by supporting the Sperrins Gateway Landscape Partnership.	DOE NIEA	Mar 2014	
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.			

UK	GBNI1NB030303226 Milltown Burn	2009 Statu	s: Moderate
	Action to be taken	Action to be taken by	Target Date
1	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Mar 2014
2	Carry out monitoring and assessment to investigate failure of aquatic plants upstream Milltown, Maghera.	DOE NIEA	Completed
3	Conduct biological investigations to assess aquatic invertebrates upstream from monitoring station at Milltown, Maghera.	DOE NIEA	Completed
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended in respect of Fallagloon Burn.	DOE NIEA, DARD Rivers Agency	Mar 2014
5	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended in respect of weirs and lack of floodplain connectivity.	DOE NIEA, DARD Rivers Agency	Mar 2014
6	Carry out fish monitoring and assessment within this water body.	DOE NIEA, DCAL, AFBI	Completed
7	Provide advice on protected area designations in respect of Carn- Glenshane Pass SAC. Complete a Habitat Regulations assessment on any proposed plan or project that has potential to cause impacts on the SAC.	DOE NIEA	Dec 2015
8	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.	NIWL	Mar 2015
9	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes.	DOE DWI	Dec 2015
10	Support local measures that will improve water quality, in particular, reduction in the presence of pesticides and the levels of organic matter in raw water which cause implications for water treatment.	DOE DWI	Dec 2015
	A number of catchment wide actions also apply to this water body. These can	be found on Page	8.

Uł	KGBNI1NB030303009 Back Burn	2009 Status: Mod	lerate
	Action to be taken	Action to be Tar taken by Da	get ate
1	Carry out a river walk to identify reasons for failure in this water body.	DOE NIEA Mar 2	2014
2	Carry out agricultural advisory site visits where necessary, as identified the river walk.	on DOE NIEA Mar 2	2015
3	Provide advice on protected area designations in respect of Ballynahon Bog SAC. Ensure a habitat regulations assessment is completed on an project likely to impact on the SAC.		2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.		

UK	GBNI1NB030303228 Moyola River	2009 S	status: Poor
	Action to be taken	Action to be taken by	Target Date
1	Upgrading of WWTW at Maghera - Phase 1 complete, further work required.	DOE NIEA, NIWL	Mar 2014
2	Carry out compliance assessment of Industrial Consented Discharge.	DOE NIEA	Dec 2015
3	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Mar 2014
4	Carry out monitoring and assessment to investigate failures of aquatic invertebrates.	DOE NIEA	Mar 2014
5	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended by RHAT (river hydromorphology assessment technique).	DOE NIEA	Mar 2014
6	Promote riparian zone management.	DOE NIEA	Dec 2015
7	Carry out a river walk downstream from monitoring station on Moyola River at Lisnamuck Bridge.	DOE NIEA	Mar 2014
8	Carry out agricultural advisory site visits where necessary, as identified on the river walk.	DOE NIEA	Mar 2015
9	Provide advice on protected area designations in respect of Curran Bog and Ballynahone Bog SACs. Complete a Habitat Regulations assessment on any proposed plan or project that has potential to cause impacts on the SAC.	DOE NIEA	Mar 2014
10	Promote public participation and awareness of catchment management issues by supporting the Sperrins Gateway Landscape Partnership.	DOE NIEA	Mar 2014
11	Review Rivers Agency's annual watercourse maintenance program regarding work associated with water body.	DOE NIEA	Mar 2014
12	Support local environmental initiatives - liase with ENVISION Community heritage project / SAMHLAIGH Tionscadal oidhreacht phobail.	DOE NIEA	Mar 2014
13	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species - focused on Species likely to impact water quality.	DOE and local community groups	Mar 2015
14	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms.	DOE	Dec 2015
15	Upgrading of WWTW at Maghera - Phase II.	NIWL	Mar 2015
	A number of catchment wide actions also apply to this water body. These can	be found on Page	<u>8.</u>

Uł	KGBNI1NB030303002 Altagoan Burn	2009	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	l or better. DOE NIEA	Dec 2015	
2	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Dec 2015	
3	Investigate failure of aquatic invertebrates upstream of monitoring Altagoan River at Banty Bridge.	g station DOE NIEA	Completed	
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.			

UKGBNI1NB030303004		Keenaght Water	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 bett	er. DOE NIEA	Dec 2015
2	2 Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.		DOE NIEA	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.			

UKGBNI1NB030303007 Grange Water trib		Grange Water tributary	2009 Statu	s: Moderate
	Act	ion to be taken	Action to be taken by	Target Date
1	Carry out monitoring and ass oxygen suppression within th	essment to establish extent of dissolved e water body.	DOE NIEA	Mar 2014
2	Carry out monitoring and ass on the Grangewater at Curra	essment to investigate failure of aquatic plants n.	DOE NIEA	Completed
3	Assess sources of organic pollution from agriculture.		DOE NIEA	Mar 2014
4		area designations in respect of Curran Bog gulations assessment on any proposed plan or ause impacts on the SAC.	DOE NIEA	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be found on Page 8.			8.

Uł	KGBNI1NB030303143 Grange Water	2009 Status	: Moderate
	Action to be taken	Action to be taken by	Target Date
1	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Mar 2014
2	Assess forestry operations - engage with forestry technical staff to promappropriate mitigation measures in felling plans to reduce impacts on waquality.		Mar 2014
3	Carry out monitoring and assessment to establish extent of dissolved oxygen suppression within this water body.	DOE NIEA	Mar 2014
4	Carry out full RHAT assessment within this water body.	DOE NIEA	Mar 2014
5	Carry out monitoring and assessment to investigate failure of aquatic plain Grangewater at Curran.	ants DOE NIEA	Completed
	A number of catchment wide actions also apply to this water body. Thes	se can be found on Page 8	<u> </u>

Uŀ	GBNI1NB030303167 Back Burn	2009 \$	Status: Poor
	Action to be taken	Action to be taken by	Target Date
1	Assess significance of sheep dip usage and review groundwater authorisations where appropriate within this water body.	DOE NIEA	Mar 2014
2	Carry out monitoring and assessment to establish extent of dissolved oxygen suppression within this water body.	DOE NIEA	Mar 2014
3	Carry out monitoring and assessment to investigate failure of aquatic plants on the Backburn at Widow Steeles Bridge.	DOE NIEA	Completed
4	Carry out a river walk upstream of monitoring station to investigate failures of aquatic invertebrates.	DOE NIEA	Mar 2014
5	Carry out agricultural advisory site visits where necessary, as identified on the river walk.	DOE NIEA	Mar 2015
6	Provide advice on protected area designations in respect of Ballynahone Bog SAC. Complete a Habitat Regulations assessment on any proposed plan or project that has potential to cause impacts on the SAC.	DOE NIEA	Mar 2014
	A number of catchment wide actions also apply to this water body. These can	be found on Page	8.

UKGBNI1NB030303139		Grange Water	2009 Statu	s: Moderate
	A	Action to be taken	Action to be taken by	Target Date
1	Assess significance of she authorisations where appro	eep dip usage and review groundwater opriate.	DOE NIEA	Mar 2014
2	Carry out monitoring and a oxygen suppression in this	assessment to establish the extent of dissolved s water body.	DOE NIEA	Mar 2014
3	Conduct biological investig along the river.	gations to assess aquatic invertebrates at sites	DOE NIEA	Completed
4	Carry out monitoring and a on the Luney Water.	assessment to investigate failure of aquatic plants	DOE NIEA	Completed
5	Carry out a river walk upst aquatic invertebrates and	tream from Luney Bridge to investigate failures in aquatic plants.	DOE NIEA	Mar 2014
	A number of catchment wi	ide actions also apply to this water body. These ca	an be found on Page	8.

UŁ	KGBNI1NB030303008	Grange Water	2009 Statu	s: Moderate
	Action to be t	aken	Action to be taken by	Target Date
1	Assess significance of sheep dip usage authorisations where appropriate within		DOE NIEA	Mar 2014
2	Carry out monitoring and assessment to oxygen within this water body.	establish extent of dissolved	DOE NIEA	Mar 2014
3	Carry out monitoring and assessment to at Grangewater, Curran.	investigate failure of aquatic plants	DOE NIEA	Completed
4	Provide advice on protected area design SAC. Complete a Habitat Regulations as project that has potential to cause impact	ssessment on any proposed plan or	DOE NIEA	Dec 2015
	A number of catchment wide actions als	o apply to this water body. These can	be found on Page	8.

UŁ	GBNI1NB030303144 Coppies Burn	2009 \$	Status: PEP
	Action to be taken	Action to be taken by	Target Date
1	Carry out compliance assessment of Industrial Consented Discharge.	DOE NIEA	Mar 2014
2	Conduct biological investigations to assess aquatic invertebrates upstream from Granias Bridge.	DOE NIEA	Completed
3	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended by the HMWB Report.	DOE NIEA, NIWL, DARD Rivers Agency	Mar 2014
4	Assess sources of organic pollution for failures in aquatic invertebrates and aquatic plants.	DOE NIEA	Mar 2014
5	Carry out monitoring and assessment to investigate failure of aquatic plants in Magherafelt Burn at Granias Bridge.	DOE NIEA	Completed
6	Carry out a river walk upstream from Magherafelt town to determine source of pollution.	DOE NIEA	Mar 2014
7	Carry out agricultural advisory site visits where necessary, as identified on the river walk.	DOE NIEA	Jan 2015
8	Carry out monitoring and assessment to establish extent of dissolved oxygen suppression within this water body.	DOE NIEA	Mar 2014
	A number of catchment wide actions also apply to this water body. These can	be found on Page	8.

UŁ	GBNI1NB030303154 Moyola River	2009 Sta	itus: 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
2	Upgrading of WWTW at Magherafelt.	DOE NIEA, NIWL	Completed
3	Assess forestry operations - engage with forestry technical staff to promote appropriate mitigation measures in felling plans to reduce impacts on water quality.	DOE NIEA, Forestry operator	Mar 2014
4	Provide advice on protected area designations in respect of Lough Neagh and Lough Beg SPA. Complete a Habitat Regulations Assessment on any proposed plan or project that has potential to cause impacts on the SPA.	DOE NIEA	Mar 2014
5	Review Rivers Agency's annual watercourse maintenance program associated with this water body.	DOE NIEA	Mar 2014
6	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.	DOE NIEA	Mar 2015
7	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes.	DOE DWI	Dec 2015
8	Support local measures that will improve water quality, in particular, reduction in the presence of pesticides and the levels of organic matter in raw water which cause implications for water treatment.	DOE DWI	Dec 2015
	A number of catchment wide actions also apply to this water body. These can be	oe found on Page 8	<u>.</u>

What other measures are being implemented in the Moyola LMA in order to maintain and improve the water environment?

The programme of measures described in the Moyola River Basin Management Plan (RBMP) 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 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;
- Abstraction and impoundment control;
- Protection of drinking water sources;
- 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

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 NI wide measures which were agreed by all relevant Departments and Agencies in Northern Ireland including DCAL, DARD, DOE, DRD, NIEA, Loughs Agency and NI Water and published as part of the RBMPs. 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 RBMPs was reported to the European Commission in December 2012. This LMA action plan forms one of the supplementary measures for the Neagh Bann RBD and includes a number of others where relevant

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

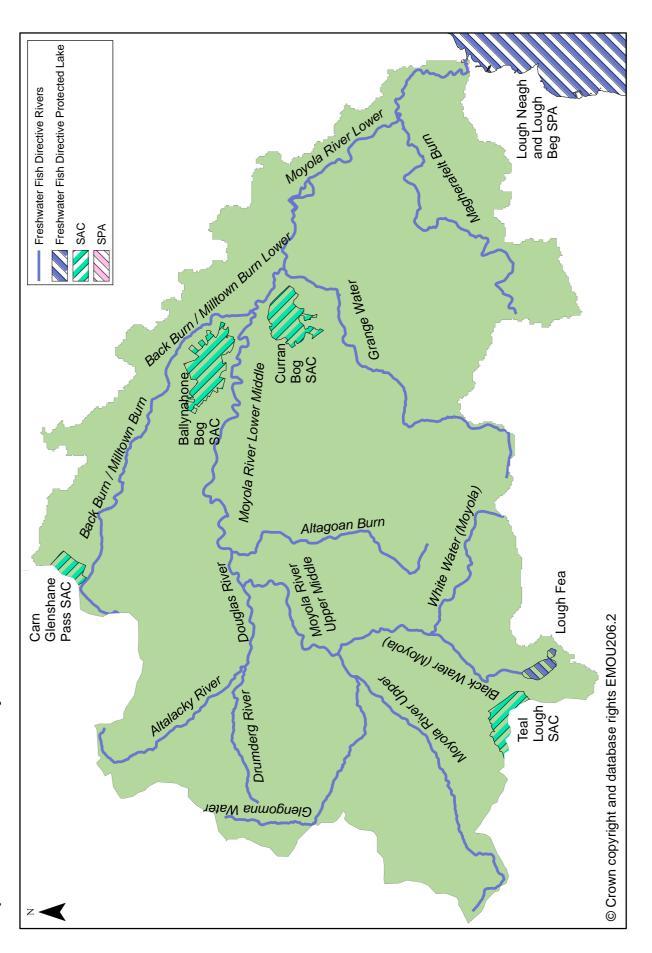
Special Areas of Conservation (Habitats Directive) and Special Protection Areas (Birds Directive) are assessed as being in favourable or unfavourable condition. These areas have been examined to determine if water dependent features are present. Teal Lough Special Areas of Conservation is in favourable condition. Ballynahone Bog, Curran Bog and Carn-Glenshane Pass Special Areas of Conservation have water dependent features which are in unfavourable condition.

Table 2: Measures for water dependent features of Special Areas of Conservation

Name	Current condition assessment of water dependent features	Measures in place
Ballynahone Bog	Active raised bogs unfavourable due to water management (including drainage, dredging or alterations to the water table. Could be too much water or too little)	Investigation ongoing
Curran Bog	Active raised bogs unfavourable due to lack of remedial management (e.g. stopping-up drains, scrub cutting, erecting deer fences)	No water related adverse activity identified
Carn-Glenshane Pass	Blanket bogs unfavourable due to water management (including drainage, dredging or alterations to the water table. Could be too much water or too little and also over-grazing (including deer browsing)	There are currently 2 MOSS agreements for the site. 9 NI Countryside Management Scheme referrals were received from DARD

Lough Neagh and Lough Beg Special Protection Area is in unfavourable condition. Unfavourable Special Protection Areas require investigation to identify external and internal factors. The issues are unclear; possibly 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 Moyola LMA are available in the protected areas section of the website.

Map 3: Protected Areas in Moyola LMA



Protected areas in Moyola 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 3: Protected areas in Moyola LMA

Protected Area Type	Location
Waters used for the abstraction of drinking water (drinking water protected areas)	There are 4 surface water protected areas for drinking water. There is 1 groundwater protected area for drinking water.
Areas designed to protect economically significant aquatic Species	
Freshwater Fish Directive (78/659/EEC)	There are 137 km of rivers and 0.5km² of lakes identified under the Freshwater Fish Directive, all designated Salmonid.
Shellfish Waters Directive (79/923/EC)	There are no designated shellfish waters.
Bathing Waters These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)	There are no identified bathing waters.
Nutrient Sensitive Areas	
Areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC)	There is 1 Urban Waste Water Treatment Directive sensitive area; Lough Neagh.
Nitrates Directive (91/676/EEC)	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 4 water dependent Special Areas of Conservation; Teal Lough, Ballynahone Bog, Curran Bog and Carn-Glenshane Pass.
Birds Directive (79/409/EEC)	There is 1 Special Protection Area; Lough Neagh and Lough Beg.

Abbreviations

Term	Explanation
AFBI	Agri-Food and Biosciences Institute.
ASSI	Area of Special Scientific Interest - land that has been identified by as being of
	the highest degree of conservation value.
DARD	Department of Agriculture and Rural Development
DCAL	Department of Culture, Arts and Leisure
DOE	Department of the Environment
DRD	Department of Regional Development
DWI	Drinking Water Inspectorate
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).
GSNI	Geological Survey of Northern Ireland
HMWB	Highly Modified Water Body
IPRI	Industrial Pollution and Radiochemical Inspectorate
LMA	Local Management Area
MOSS	Management of Sensitive Sites - MOSS is a voluntary scheme, administered by NIEA, which is designed to ensure the positive management of land within ASSIs.
NIEA	Northern Ireland Environment Agency
NIWL	Northern Ireland Water Limited
RHAT	River Hydromorphology Assessment Technique
SAC Special Area of Conservation - conservation area given greater protections.	
	under the European legislation of The Habitat's Directive.
SPA Special Protected Area designated under the European Commission Dir	
	on the Conservation of Wild Birds
WWTW	Waste Water Treatment Works

Working together to implement the Local Management 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 Upper Neagh Bann Catchment Stakeholder Group meetings or by contacting the Catchment Management Officer, Mert Thompson.

Email: Meredith.Thompson@doeni.gov.uk

Telephone: 028 9262 3048

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



