

Significant Water Management Issues

Lough Melvin and Arney Local Management Area Action Plan and Update

December 2013

MELVIN & ARNEY LOCAL MANAGEMENT AREA PLAN

LMA Action	Progress Update
Complete the phosphorus nutrient budget work for Northern Ireland to establish nutrient inputs from different sectors.	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.
Develop leaflets and articles to promote effective farm nutrient and waste management	'Water Quality Plans in Action' article published in Farming Life. A DARD and NIEA poster featuring local farmer contribution to improving water quality within LMA's has been produced and is displayed in relevant venues
Raise awareness and promote the benefits of effective farm nutrient and waste management	<p>All applicants to DARD agri-environment schemes receive a farm waste management advisory visit as part of their application to the scheme. DARD have produced a Code of Good Agricultural Practice which contains practical management advice on how farm wastes such as silage effluent, slurry and manure can be collected, stored and spread with minimum risk to the environment. DARD has developed an agri-environment training course for farmers dealing with farm wastes and nutrient management planning.</p> <p>'Landowner Awareness - Improving water quality in your local area' leaflet developed jointly with Loughs Agency, UFU, DARD to raise awareness amongst landowners.</p> <p>Leaflets have been distribution in the LMA</p> <p>NIEA delivered a Water Framework Directive awareness talk to CAFRE students.</p>
Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species in the Melvin & Arney LMA.	<p>Provided advice and support to Lough Erne Invasive Species Group Meetings group meets specifically in relation to the growth of Nuttall's Pondweed in the Erne system.</p> <p>During the course of river walks undertaken by NIEA any sightings or suspected sightings of invasive alien species are collated and reported to Invasive Species Ireland.</p>
Create an inventory of physical structures within the river channel and bank structures where identified by stakeholders as an issue.	NIEA work with several stakeholder groups to encourage collecting information relating to obstacles which may affect fish passability in water bodies. The UK Fish Passability tool has been applied to identify selected obstacles which are causing a barrier to fish migration.
Review Rivers Agency's annual watercourse maintenance program and contribute to quarterly operational meetings.	Meet with Rivers Agency approx. 3 times per year to discuss the maintenance programme for targeted water bodies.
Assess forestry operations and promote incorporation of Lough Melvin Catchment Management Plan (2008) recommendations where appropriate.	The impact of forestry on water quality is being investigated by ascertaining felling programme in the catchment and engagement with forestry technical field staff / private landowners to ensure measures are in place to mitigate risks from felling. The importance of good practice for all forestry activities to reduce the risk to the aquatic environment has been emphasised. Forest Service (NI) follows the 'Forest & Water Guidelines' produced by the Forestry Commission.

LMA Action	Progress Update
<p>Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide a forum for discussing local water quality issues and encourage involvement in developing and implementing the Local Management Area Action Plans.</p>	<p>CSG Meetings have been held on the following dates: 7 Nov & 30 May 2013 24 Oct & 24 May 2012 11 Oct & 1 June 2011 16 Nov & 8 June 2010 18 Nov & 13 May 2009 1 Oct 2008 19 Feb 2008</p> <p>Presentations and notes of meetings can be found at http://www.ni-environment.gov.uk/water-home/wfd/public_partic_3/catchment_stakeholder_groups/erne_and_melvin.htm.htm</p>
<p>Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage</p>	<p>The official launch of the LMA pollution hotline signage project took place on 18th April 2011 with NIEA Chief Executive John McMillan. 15 signs have been located throughout the Melvin & Arney LMA. The pollution hotline number is promoted frequently by NIEA events, publications and relevant websites</p>
<p>Promote public participation by raising awareness of the Rivers Trust.</p>	<p>NIEA continue to support the establishment and operation of River Trusts in NI including a start up grant, mentoring and advice.</p>
<p>Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)'. </p>	<p>NIEA support relevant water quality enhancing campaigns by distributing promotional material. NIEA have provided support to local river clean ups in a number of rivers across the province.</p>
<p>Highlight external funding opportunities for water management projects to local partners such as the NIEA Water Quality Improvement Grant, NIEL challenge fund etc.</p>	<p>Funding opportunities where promoted through CSG meetings, NIEA website and e-mail.</p> <p>In 2012 Enniskillen anglers were awarded a NIEA Water Quality Improvement Grant. The Club completed a river restoration on 'Earls River', a tributary on the western shore of Lower Lough Erne. The project involved reducing shading, addition of gravel and boulders, fencing and restocking.</p> <p>NIEA will continue to encourage & support future applications to the NIEA Water Quality Improvement Grant through CSG meetings, NIEA website and e-mail.</p> <p>For further information see: http://www.doeni.gov.uk/niea/water_quality_improvement_grant</p>

Action	Waterbody affected	Update
Carry out fish monitoring and assessment to investigate reasons for poor fish classification in this catchment.	UKGBNI1NW363601036 Black River UKGBNI1NW363601007 Lurgan River UKGBNI1NW353502005 Count River Upper - Lattone Tributary	DCAL monitored is ongoing and most sites were monitored this summer. Data analysis is progressing
Carry out fish habitat improvement works as dictated by business plan/corporate plan.	UKGBNI1NW363601036 Black River UKGBNI1NW363601007 Lurgan River UKGBNI1NW353502005 Count River Upper - Lattone Tributary	Ongoing
Assess forestry operations, felling and redesign plans for local forests to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.	UKGBNI1NW363601036 Black River (Ballintempo Forest) UKGBNI1NW363601010 Boho River (Belmore Forest)	Forest Service (NI) follows the 'Forest & Water Guidelines' produced by the Forestry Commission.
Maintain current regulatory controls as water body status is Good or better.	UKGBNI3NW0011 Upper Lough Macnean UKGBNI1NW363602092 Belcoo River UKGBNI1NW363601001 Arney River UKGBNI1NW363601073 Sillees River upper UKGBNI1NW363601074 Sillees River tributary UKGBNI1NW363601056 Sillees River UKGBNI1NW363601010 Boho River UKGBNI1NW353502001 County River Lower UKGBNI1NW353502007 Lough Melvin peripherals UKGBNI3NW0033 Lough Melvin UKGBNI1NW353502006 Bradoge River	Ongoing
Develop targeted ecological modelling tools for lake management.	UKGBNI3NW0011 Upper Lough Macnean UKGBNI3NW0014 Lower Lough Macnean UKGBNI3NW0033 Lough Melvin	DOLMANT project is progressing
Conduct biological investigations to assess aquatic invertebrates suppression within the catchment	UKGBNI1NW363601007 Lurgan River UKGBNI1NW363602093 Drumharriff Burn UKGBNI1NW363601049 Arney River tributary	Completed. The results of these investigations were used to complete target river walks within the water bodies
Carry out monitoring and assessment of Lower Lough Macnean via a lake habitat resurvey.	UKGBNI3NW0014 Lower Lough Macnean	The 2013 Classifications for all lakes will be complete by early 2014. However on an initial assessment there has been little to no variation between conditions in 2010 and present.

Action	Waterbody affected	Update
Carry out monitoring and assessment to establish reasons for moderate aquatic plants.	UKGBNI1NW363602093 Drumharriff Burn	Complete. Monitoring resulted in a targeted river walk has been conducted by NIEA staff on 2 potential water quality issues were identified and addressed. (1 agricultural and 1 industrial)
Carry out a river walk of Drumharriff Burn to investigate potential pollution sources causing invertebrate suppression.	UKGBNI1NW363602093 Drumharriff Burn	Complete. A river walk was conducted by NIEA staff, 2 potential water quality issues were identified and addressed. (1 agricultural and 1 industrial)
Carry out a river walk in the Coreen and Lisblake areas to investigate suppression of biology and elevated chemistry.	UKGBNI1NW363601001 Arney River	Complete. A river walk was conducted by NIEA staff no active or potential water quality issues were identified.
Carry out improvement works to the WWTW at Derryaghna and Florencecourt.	UKGBNI1NW363601001 Arney River	Completed
Carry out monitoring and assessment to investigate zinc levels within the catchment	UKGBNI1NW363601084 Cladagh River	Monitoring ongoing. Acceptable Zinc levels have been found in 2010, 2011 and 2012
Carry out a river walk to investigate the decline in the aquatic invertebrate community and dissolved oxygen levels associated with agricultural practices in the catchment	UKGBNI1NW363601049 Arney River tributary	Completed
Carry out a river walk to investigate influence of Florencecourt caravan park pumping station on invertebrate suppression.	UKGBNI1NW363601049 Arney River tributary	Completed No impact found
Carry out monitoring and assessment to investigate ph decline trend within this water body.	UKGBNI1NW363601049 Arney River tributary	Ask Robert. Reasons for status state ph has been high every year
Carry out monitoring and assessment to investigate invertebrate suppression	UKGBNI1NW363601040 Arney River UKGBNI1NW363601044 Sillees River	Complete
Carry out a visual inspection of WWTW at Arney.	UKGBNI1NW363601040 Arney River	NIW has submitted an application for additional upgrade of the Arney works. Work is expected to be carried out shortly
Carry out a river walk to investigate the decline in the dissolved oxygen levels in the catchment.	UKGBNI1NW363601040 Arney River UKGBNI1NW363601004 Sillees River (Derrygonnelly area urban and rural area)	The Sillees and Arney systems have had issues with low Dissolved Oxygen (DO) levels on occasion. Local Regional Operational staff have just completed a 10 month monitoring of DO levels at a number of sites within the relevant water bodies and carried out investigations when appropriate. Dissolved Oxygen level trends are currently being analysed.
Assess sources of organic pollution including agricultural and domestic wastewater treatment systems causing nutrient enrichment and invertebrate suppression in the catchment.	UKGBNI1NW363601044 Sillees River	Complete. Series of River walks conducted.

Action	Waterbody affected	Update
Carry out a river walk upstream of Thompson's bridge, Aughrim to investigate the decline in the dissolved oxygen levels and invertebrate suppression in the catchment.	UKGBNI1NW363601044 Sillees River	Complete.
Carry out improvement works to the WWTW at Monea.	UKGBNI1NW363601044 Sillees River	First upgrade complete, additional works planned regarding infiltration from the extensive sewer network. Work is being undertaken to locate the source of infiltration.
Carry out improvement works to the WWTW at Scribbagh.	UKGBNI1NW353502005 Count River Upper - Lattone Tributary	Upgrade completed.
Carry out a river walk to investigate agricultural practices in the catchment.	UKGBNI1NW353502001 County River Lower UKGBNI1NW353502004 Roogagh River UKGBNI1NW353502002 Roogagh River	Priority was given to completing targeted river walks where investigative LMA surveys had been completed and suppression in biology was confirmed.
Carry out compliance assessment of Garrison WWTW	UKGBNI3NW0033 Lough Melvin	NIW has submitted an application for upgrade conditions and are currently proposing an upgrade of the plant under PC15.

If you are running a project or carrying out work that will assist in protecting the water environment let us know by contacting Eileen Mallon, Catchment Management Officer for the Melvin & Arney LMA eileen.mallon@doeni.gov.uk or 028 92633442

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

LOUGH MELVIN AND ARNEY
Local Management Area

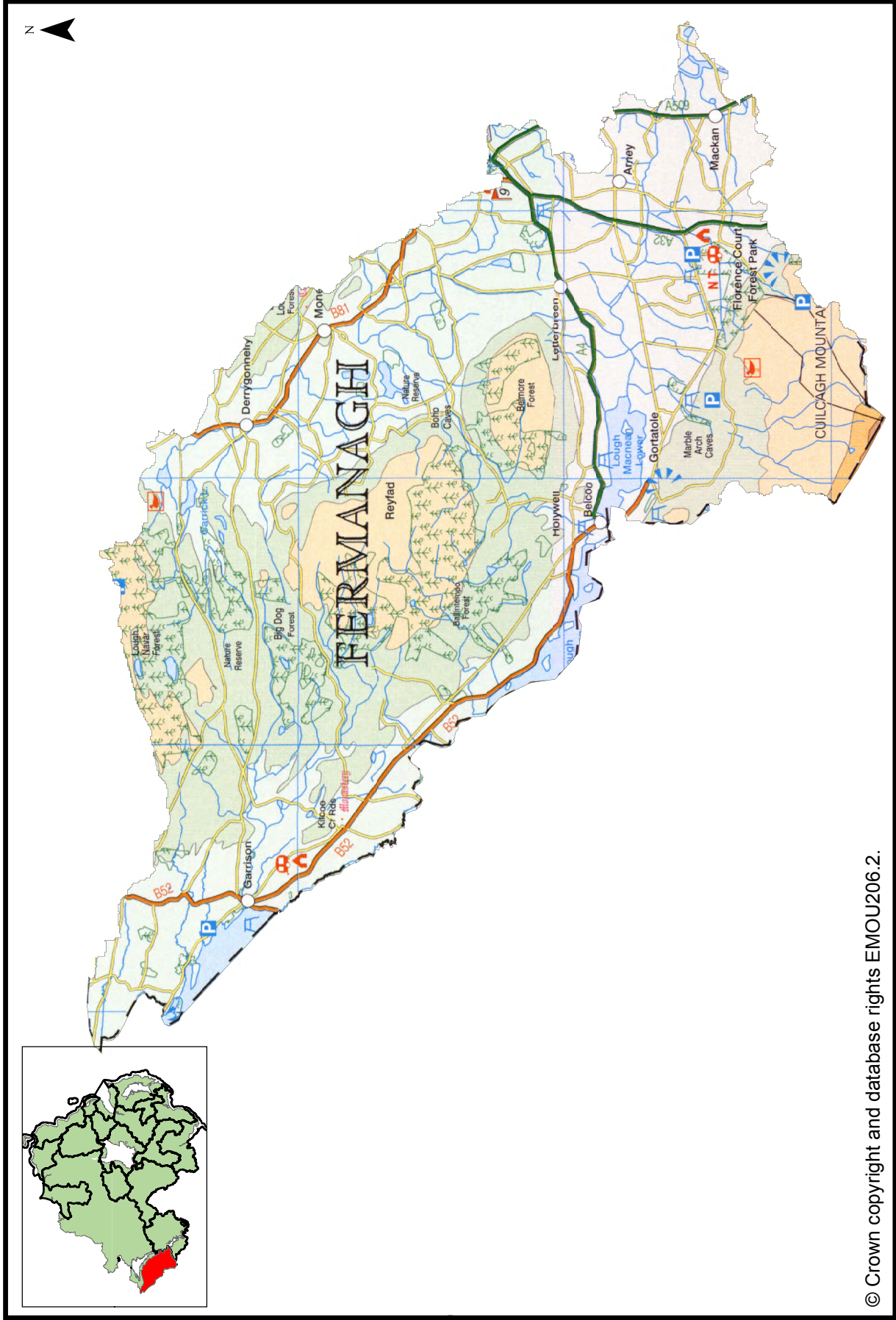


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Map 1: Lough Melvin and Arney Local Management Area



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 are being implemented through Local Management Areas (LMAs) during the 2009 to 2015 planning cycle. This Lough Melvin and Arney 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.

The Lough Melvin and Arney Local Management Area

Lough Melvin and Arney LMA (Map 1) is part of the North Western River Basin District and covers an area of approximately 499km². There are several distinct river systems in this LMA. These include Arney, Sillees, Lurgan, Glen and Roogagh. The area supports a wide range of natural habitats several of which are protected.

Lough Melvin is in the north west of the LMA and supports important native fish populations. It contains the only currently known population of Arctic Charr in Northern Ireland. The Lough also contains three genetically distinct populations of Brown Trout and is an important area for Atlantic Salmon. The area also supports a wide range of recreational activities including walking, caving and angling.

The main towns are Derrygonnelly, Garrison, Boho and Bellanaleck. There are also several smaller towns dispersed throughout the area. The south and west of this LMA is dominated by lake-land fringed with wetland habitats. The land area is largely given over to improved grassland in the south east, changing to acid grass and forested areas moving north west.

The Lough Melvin and Arney 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 Lough Melvin and Arney LMA?

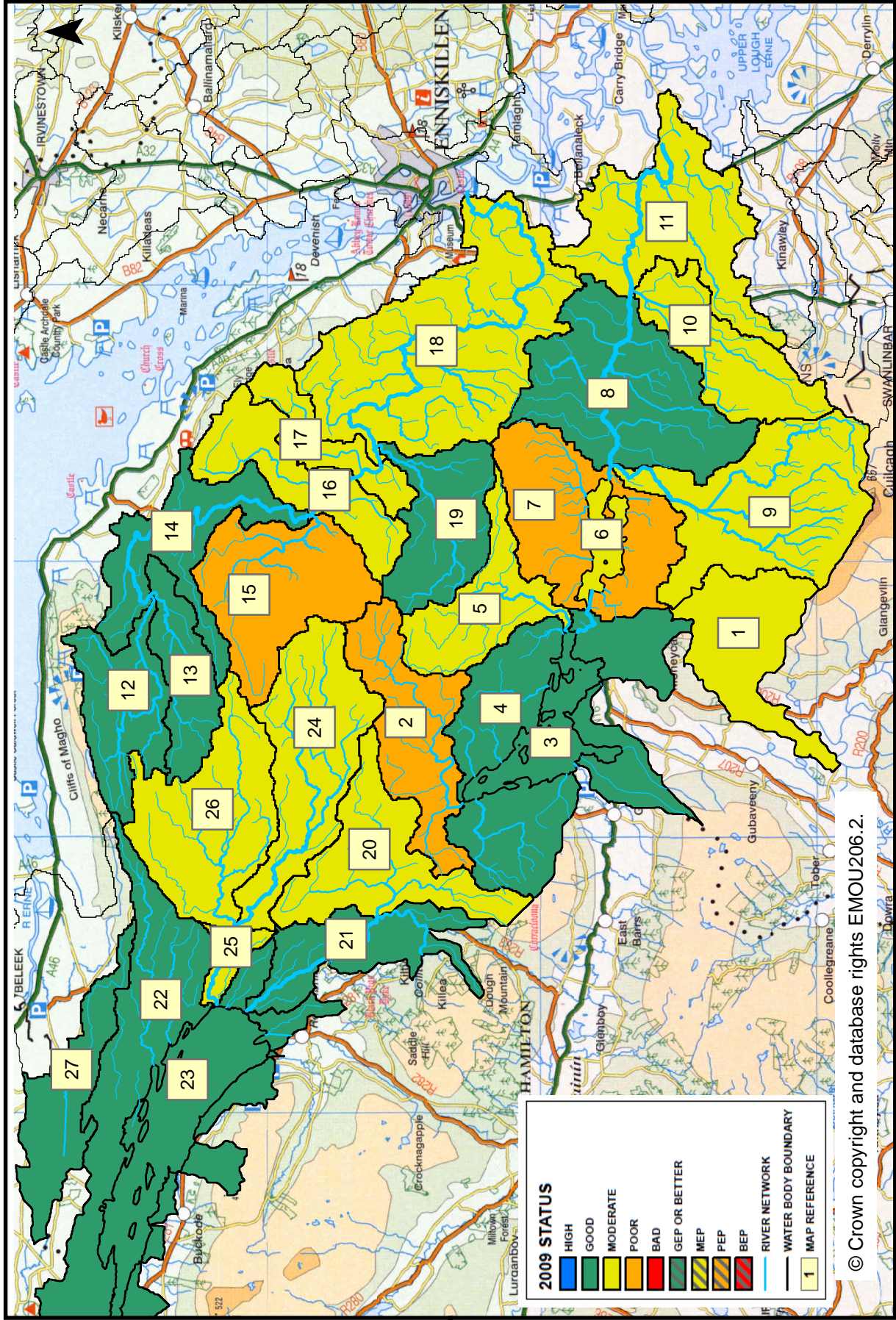
57.1% of surface water bodies in Lough Melvin and Arney LMA (Map 2) have been classified as less than good. The main impact was seen in dissolved oxygen and also invertebrate communities. These elements are mainly related to organic enrichment and the rivers affected include: Drumharriff Burn, Lurgan, Sillees, Arney river tributary, Sillees River, Ross Lough and Arney.

There is also evidence of nutrient enrichment indicated by the number of water bodies affected by impacts on macrophyte and diatom communities. These rivers include Drumharriff burn, Sillees, Screenagh, Roogagh and Glen Rivers and Lower Lough Macnean.

Seven water bodies were identified as being impacted by changes to Morphology. The main rivers affected were: Glen, Arney, Lurgan, Boho, Sillees and Cladagh. However, the changes to these rivers did not downgrade the overall status and we will continue to monitor these rivers for any further changes.

All of the groundwater water bodies within the Lough Melvin and Arney LMA are achieving good status. We aim to maintain good status in 100% of our groundwater bodies.

Map 2: 2009 status of surface water bodies in Lough Melvin and Arney LMA



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Table 1: 2009 status and proposed objectives

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
1	UKGBNI1NW262601001	Black River (Cavan)	Moderate	Good	9
2	UKGBNI1NW363601036	Black River	Poor	Good	9
3	UKGBNI3NW0011	Upper Lough Macnean	Good	Good	9
4	UKGBNI1NW363602092	Belcoo River	Good	Good	10
5	UKGBNI1NW363601007	Lurgan River	Moderate	Good	10
6	UKGBNI3NW0014	Lower Lough Macnean	Moderate	Moderate	10
7	UKGBNI1NW363602093	Drunharriff Burn	Poor	Moderate	11
8	UKGBNI1NW363601001	Arney River	Good	Good	11
9	UKGBNI1NW363601084	Cladagh River	Moderate	Good	11
10	UKGBNI1NW363601049	Arney River Tributary	Moderate	Good	12
11	UKGBNI1NW363601040	Arney River	Moderate	Good	12
12	UKGBNI1NW363601073	Sillees River Upper	Good	Good	12
13	UKGBNI1NW363601074	Sillees River Tributary	Good	Good	13
14	UKGBNI1NW363601056	Sillees River	Good	Good	13
15	UKGBNI1NW363601055	Screenagh River	Poor	Moderate	13
16	UKGBNI1NW363601004	Sillees River	Moderate	Good	14
17	UKGBNI1NW363601003	Sillees River Ross Lough	Moderate	Good	14
18	UKGBNI1NW363601044	Sillees River	Moderate	Moderate	15
19	UKGBNI1NW363601010	Boho River	Good	Good	15
20	UKGBNI1NW353502005	Count River Upper - Lattone Tributary	Moderate	Good	16
21	UKGBNI1NW353502001	County River Lower	Good	Good	16
22	UKGBNI1NW353502007	Lough Melvin peripherals	Good	Good	16

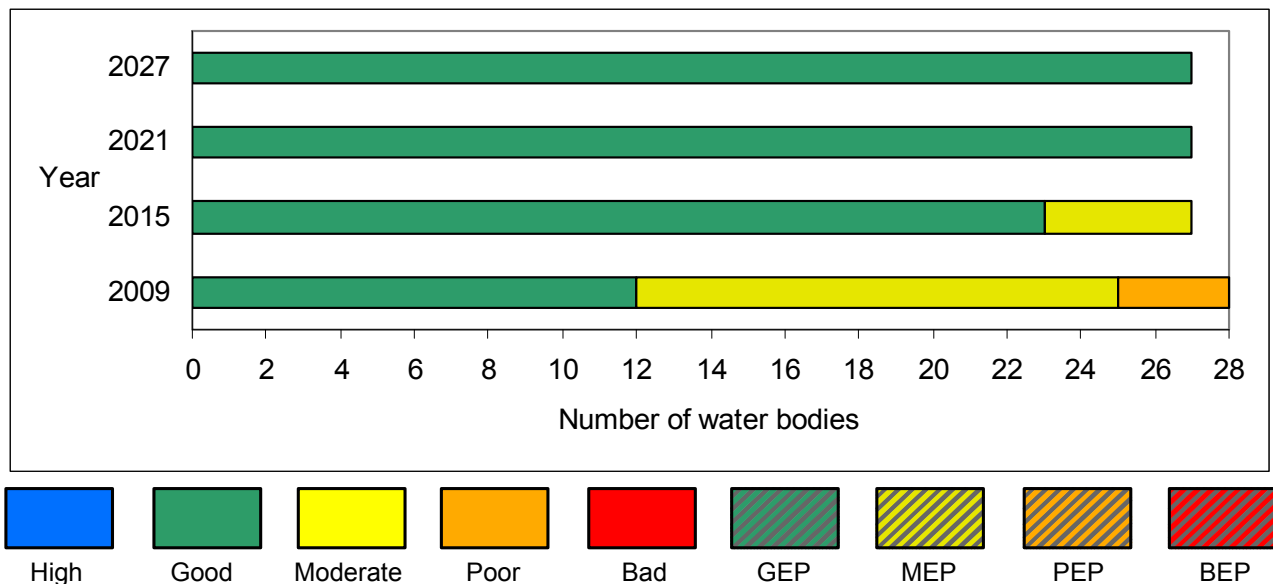
Table 1: 2009 status and proposed objectives (continued)

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
23	UKGBNI3NW0033	Lough Melvin	Good	Good	17
24	UKGBNI1NW353502004	Roogagh River	Moderate	Good	17
25	UKGBNI1NW353502002	Roogagh River	Moderate	Good	18
26	UKGBNI1NW353502003	Glen River	Moderate	Good	18
27	UKGBNI1NW353502006	Bradoge River	Good	Good	18

What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown below. We aim to achieve good status or better in 85.7 % of the surface waters by 2015. We also aim to maintain good status in 100% of our groundwaters.

Figure 1: 2009 Status and proposed objectives for surface waters in the Lough Melvin and Arney LMA



How are we going to improve the water environment in the Lough Melvin and Arney LMA?

There are a number of actions which will be implemented in the Lough Melvin and Arney 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 Lough Melvin and Arney 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	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.	DOE NIEA	Completed
2	Carry out monitoring and assessment to identify and address pressures throughout the Melvin & Arney LMA.	DOE NIEA	Mar 2014
3	Carry out compliance assessment at industrial consented sites, WWTW and cross-compliance inspections at selected farms within the LMA.	DOE NIEA	Mar 2014
4	Offer a farm nutrient and waste management advisory visit to farmers following a pollution incident (on referral by NIEA).	DARD Countryside Management Branch	Mar 2014
5	Assess significance of sheep dip usage and review groundwater authorisations where appropriate.	DOE NIEA	Mar 2014
6	Complete the phosphorus nutrient budget work for Northern Ireland to establish nutrient inputs from different sectors.	DOE NIEA, AFBI	Mar 2014
7	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms.	DARD Countryside Management Branch	Mar 2014
8	Develop leaflets and articles to promote effective farm nutrient and waste management.	DOE NIEA, DARD Countryside Management Branch	Mar 2014
9	Develop targeted ecological modelling tools for lake management and apply to lakes within the LMA where appropriate.	DOE NIEA, AFBI	Mar 2014
10	Raise awareness and promote the benefits of effective pollution control and farm nutrient and waste management.	DARD Countryside Management Branch	Mar 2014
11	Provide advice on protected area designations to work towards improving unfavourable condition assessments.	DOE NIEA	Mar 2014
12	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species in the Melvin & Arney LMA.	DOE NIEA	Mar 2014
13	Promote environmental best practice to control the spread of invasives species such as Zebra mussel.	DOE NIEA	Mar 2014
14	Create an inventory of physical structures within the river channel and bank structures where identified by stakeholders as an issue.	DOE NIEA	Mar 2012
15	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA	Mar 2014
16	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Mar 2014

	Action to be taken	Action to be taken by	Target Date
17	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	Mar 2014
18	Review Rivers Agency's annual watercourse maintenance program and contribute to quarterly operational meetings.	DOE NIEA, DARD Rivers Agency	Mar 2014
19	Carry out freshwater fish monitoring with the aim of completing WFD monitoring at programmed surveillance monitoring stations.	DOE NIEA	Mar 2014
20	Co-ordinate plans for high impact operations such as harvesting with Coillte ROI on catchment basis.	DARD Forest Service	Mar 2014
21	Assess forestry operations and promote incorporation of Lough Melvin Catchment Management Plan (2008) recommendations where appropriate.	DARD Forest Service	Mar 2014
22	Liaise with ROI organisations and NI organisations to assess the relevance and review the implementation of the Lough Melvin Catchment Management Plan (2008).	DOE NIEA, relevant organisations (NI & ROI)	Mar 2014
23	Liaise with ROI organisations to development and implement the LMA action plan.	DOE NIEA, relevant ROI organisations	Mar 2014
24	Liaise with ROI organisations regarding fracking proposals, regulatory issues and research. Continue to participate in the interdepartmental shale gas regulators forum. Ensure an open and transparent process of public consultation.	DOE NIEA, relevant organisations (NI & ROI)	Mar 2014
25	Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide a forum for discussing local water quality issues and encourage involvement in developing and implementing the Local Management Area Action Plans.	DOE NIEA, All stakeholders	Mar 2014
26	Promote public participation and awareness of catchment management issues by working with local organisations to promote relevant press articles and web publications.	DOE NIEA	Mar 2014
27	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage.	DOE NIEA	Mar 2014
28	Promote public participation by raising awareness of the Rivers Trust.	DOE NIEA	Mar 2014
29	Support local environmental initiatives ,promote and encourage local projects through funding such as the NIEA Water Quality Improvement Grant.	DOE NIEA	Mar 2014
30	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)'.	DOE NIEA, NIWL	Mar 2014
31	Highlight external funding opportunities for water management projects to local partners such as the NIEA Water Quality Improvement Grant, NIEL challenge fund etc.	DOE NIEA	Mar 2014

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

UKGBNI1NW262601001	Black River (Cavan)	2009 Status: Moderate	
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	Action to be taken	Action to be taken by	Target Date
1	Liaise with ROI organisations to improve confidence in classification and improve water quality in this water body currently classified as moderate status.	DOE NIEA, ROI organisations	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363601036	Black River	2009 Status: Poor	
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	Action to be taken	Action to be taken by	Target Date
1	Carry out fish monitoring and assessment to investigate reasons for poor fish classification in this catchment.	DCAL Inland Fisheries	Mar 2014
2	Carry out fish habitat improvement works as dictated by business plan / corporate plan.	DCAL Inland Fisheries	Mar 2014
3	Assess forestry operations, felling and redesign plans for Ballintempo Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.	DOE NIEA, DARD Forest Service	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI3NW0011	Upper Lough Macnean	2009 Status: Good	
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	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, DARD Countryside Management, All stakeholders	Mar 2014
2	Develop targeted ecological modelling tools for lake management.	DOE NIEA, AFBI	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363602092		Belcoo 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, DARD Countryside Management, All stakeholders	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601007		Lurgan River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates suppression within the catchment.		DOE NIEA	Completed
2	Carry out fish monitoring and assessment to investigate reasons for moderate fish classification in this catchment.		DOE NIEA & DCAL Inland Fisheries	Mar 2014
3	Carry out fish habitat improvement works as dictated by business plan / corporate plan.		DCAL Inland Fisheries	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI3NW0014		Lower Lough Macnean	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment of Lower Lough Macnean via a lake habitat resurvey.		DOE NIEA	Dec 2013
2	Develop targeted ecological modelling tools for lake management.		DOE NIEA, AFBI	Mar 2014
3	Promote environmental best practice to reduce the spread of zebra mussels and other invasives species.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363602093		Drumharriff Burn	2009 Status: Poor	
	Action to be taken		Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates suppression within the catchment.		DOE NIEA	Completed
2	Carry out monitoring and assessment to establish reasons for moderate aquatic plants.		DOE NIEA	Mar 2014
3	Carry out a river walk of Drumharriff Burn to investigate potential pollution sources causing invertebrate suppression.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601001		Arney 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, DARD Countryside Management, All stakeholders	Mar 2014
2	Carry out a river walk in the Coreen and Lisblake areas to investigate suppression of biology and elevated chemistry.		DOE NIEA	Mar 2014
3	Carry out improvement works to the WWTW at Derryaghna and Florence Court.		NIWL	Completed
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601084		Cladagh River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to investigate zinc levels within the catchment.		DOE NIEA	Mar 2014
2	Promote environmental best practice in upland vegetation management within the Cladagh catchment and Cuilcagh ASSI and Ramsar site to improve retention of minerals and metals within the blanket bog habitat.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601049		Arney River tributary	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates which are at moderate status within the catchment.		DOE NIEA	Completed
2	Carry out a river walk to investigate the decline in the aquatic invertebrate community and dissolved oxygen levels associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
3	Carry out a river walk to investigate influence of Florencecourt caravan park pumping station on invertebrate suppression.		DOE NIEA	Mar 2014
4	Carry out monitoring and assessment to investigate ph decline trend 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 7.](#)

UKGBNI1NW363601040		Arney River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to investigate invertebrate suppression in Arney river tributaries.		DOE NIEA	Completed
2	Carry out monitoring and assessment of invertebrates above and below Arney WWTW outfall.		DOE NIEA	Mar 2014
3	Carry out a visual inspection of WWTW at Arney.		DOE NIEA	Completed
4	Carry out a river walk to investigate the decline in the dissolved oxygen levels in the catchment.		DOE NIEA	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363601073		Sillees River upper	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, DARD Countryside Management, All stakeholders	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363601074		Sillees River tributary	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, DARD Countryside Management, All stakeholders	Mar 2014	
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601056		Sillees 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, DARD Countryside Management, All stakeholders	Mar 2014	
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601055		Screenagh River	2009 Status: Poor	
Action to be taken		Action to be taken by	Target Date	
1	Carry out monitoring and assessment to establish reasons for poor aquatic plants.	DOE NIEA	Mar 2014	
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601004		Sillees River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to assist in the identification of pollution pressures from the urban sources i.e. Derrygonnelly and surrounding agricultural areas.		DOE NIEA	Mar 2014
2	Carry out a river walk to investigate the moderate dissolved oxygen status in the catchment.		DOE NIEA	Mar 2014
3	Carry out monitoring and assessment to establish reasons for moderate phytobenthos status.		DOE NIEA	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363601003		Sillees River Ross Lough	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to investigate the moderate dissolved oxygen status in this catchment.		DOE NIEA	Mar 2014
2	Carry out monitoring and assessment to establish reasons for moderate phytobenthos status.		DOE NIEA	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW363601044		Sillees River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates suppression within the catchment.		DOE NIEA	Completed
2	Assess sources of organic pollution including agricultural and domestic wastewater treatment systems causing nutrient enrichment and invertebrate suppression in the catchment.		DOE NIEA	Mar 2014
3	Carry out a river walk upstream of Thompsons bridge, Aughtrim to investigate the decline in the dissolved oxygen levels and invertebrate suppression in the catchment.		DOE NIEA	Mar 2014
4	Carry out a river walk to investigate the decline in the dissolved oxygen levels in the catchment.		DOE NIEA	Mar 2014
5	Carry out improvement works to the WWTW at Monea. First upgrade complete, additional works planned.		NIWL	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW363601010		Boho 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, DARD Countryside Management, All stakeholders	Mar 2014
2	Assess forestry operations, felling and redesign plans for Belmore Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA, DARD Forest Service	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW353502005		Count River Upper - Lattone Tributary	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out fish monitoring and assessment to investigate reasons for moderate fish status in this catchment.		DOE NIEA & DCAL Inland Fisheries	Mar 2014
2	Carry out fish habitat improvement works as dictated by business plan / corporate plan.		DCAL Inland Fisheries	Mar 2014
3	Carry out improvement works to the WWTW at Scribbagh.		NIWL	Completed

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW353502001		County River Lower	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, DARD Countryside Management, All stakeholders	Mar 2014
2	Carry out a river walk to investigate agricultural practices in the catchment.		DOE NIEA	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI1NW353502007		Lough Melvin peripherals	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, DARD Countryside Management, All stakeholders	Mar 2014
2	Liaise with ROI organisations to improve confidence in classification and maintain water quality in this water body.		DOE NIEA, ROI organisations	Mar 2014
3	Provide advice on protected area designations within the Lough Melvin Special Area of Conservation.		DOE NIEA	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 7.](#)

UKGBNI3NW0033		Lough Melvin	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, DARD Countryside Management, All stakeholders	Mar 2014
2	Liaise with ROI organisations to maintain water quality in this water body.		DOE NIEA, ROI organisations	Mar 2014
3	Liaise with ROI organisations and NI organisations to assess the relevance and review the implementation of the Lough Melvin Catchment Management Plan (2008).		DOE NIEA, relevant organisations (NI & ROI)	Mar 2014
4	Provide advice on protected area designations within the Lough Melvin Special Area of Conservation.		DOE NIEA	Mar 2014
5	Assess sources of organic pollution causing phosphate enrichment in the catchment.		DOE NIEA	Mar 2014
6	Carry out compliance assessment of Garrison WWTW.		DOE NIEA	Mar 2014
7	Develop targeted ecological modelling tools for lake management.		DOE NIEA, AFBI	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW353502004		Roogagh River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to establish reasons for moderate phytobenthos status.		DOE NIEA	Mar 2014
2	Carry out a river walk to investigate agricultural practices in the catchment.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW353502002		Roogagh River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to establish reasons for moderate phytobenthos status.		DOE NIEA	Dec 2014
2	Carry out a river walk to investigate agricultural practices in the catchment.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW353502003		Glen River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out monitoring and assessment to establish reasons for moderate phytobenthos status.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

UKGBNI1NW353502006		Bradoge 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, DARD Countryside Management, All stakeholders	Mar 2014
2	Liaise with ROI organisations to improve confidence in classification and maintain water quality in this water body.		DOE NIEA, ROI organisations	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 7.				

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

The Programme of Measures described in the North Western River Basin Management Plan (RBMP) have been categorised into two types of measures: existing and planned and supplementary. Existing and planned measures aim to ensure that existing water uses are appropriately managed and that the water environment remains at good status.

Existing and planned measures include those which have been put in place to meet legal requirements.

Those which apply in this LMA include:

- The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC);
- The Birds Directive (74/409/EEC);
- The Major Accidents Directive (96/82/EC);
- The Sewage Sludge Directive (86/278/EEC);
- The Urban Waste-water Treatment Directive (91/271/EEC);
- The Environmental Impact Assessment Directive (85/337/EEC);
- The Plant Protection Products Directive (91/414/EEC);
- The Nitrates Directive (91/676/EEC);
- The Habitats Directive (92/43/EEC); and
- The Integrated Pollution Prevention Control Directive (96/61/EC).

A number of other existing and planned measures apply in this LMA:

- Cost recovery for water use and promotion of efficient and sustainable water use;
- Protection of drinking water sources;
- Abstraction and impoundment control;
- Point source and diffuse source discharge control;
- Controls on physical modifications to surface waters;
- Prevention or reduction of the impact of accidental pollution incidents;
- Authorisation of discharges to groundwater;
- Priority substances control; and
- Controls on other activities impacting on water status.

Further information on existing and planned measures for each sector is available on the programme of measures section of the website.

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 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 North West 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.

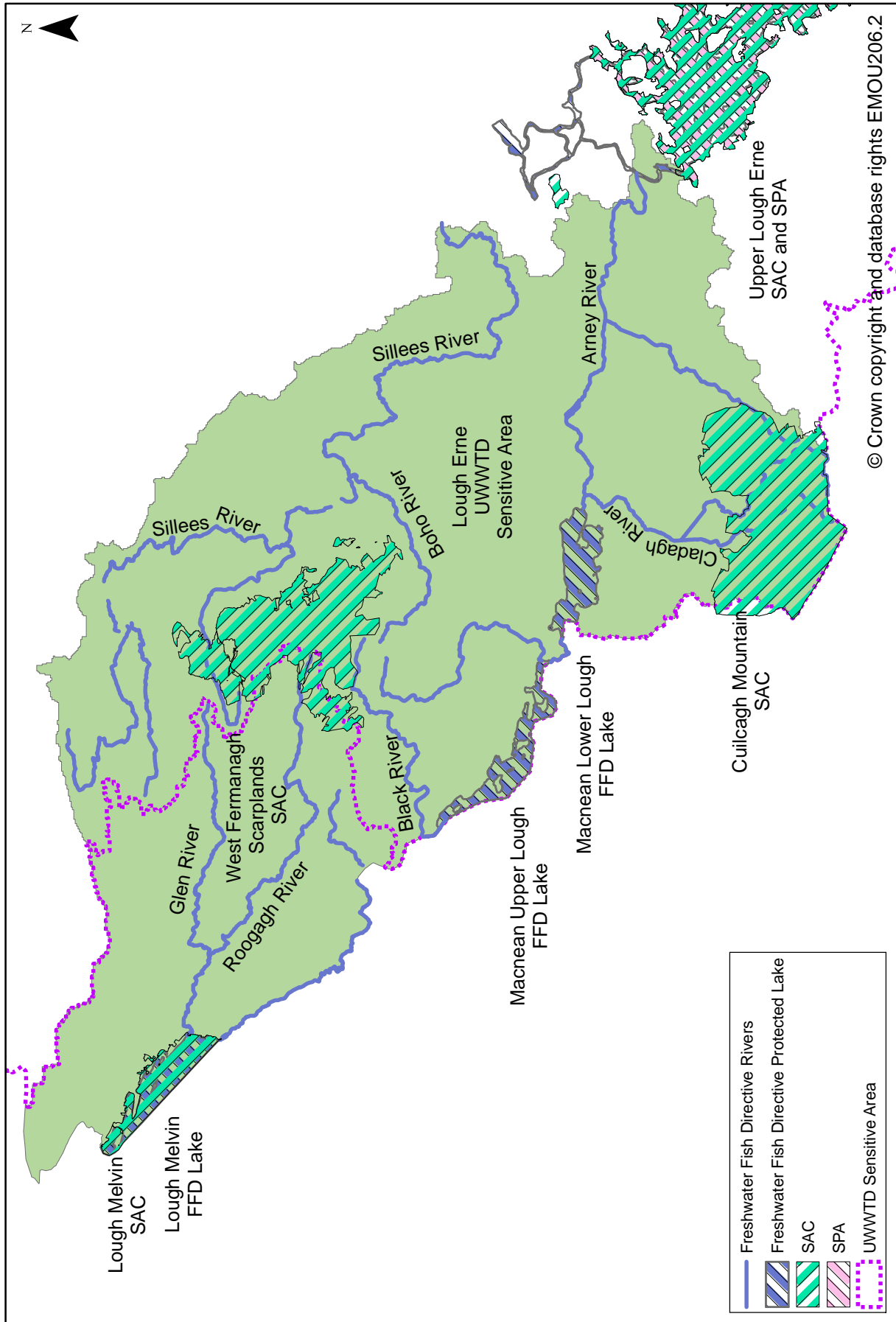
There are four Special Areas of Conservation in the LMA one of which is Lough Melvin. This is a mesotrophic lake and has water dependent features which are in unfavourable condition, due to concern over phosphorus levels.

There are no specific measures for the other three areas, West Fermanagh Scarplands, Cuilcagh Mountain and Upper Lough Erne Special Areas of Conservation as there are no water related adverse activities causing the unfavourable condition assessments.

Measures for water dependent features of Special Areas of Conservation

There is one water dependent Special Protection Area in the Lough Melvin and Arney LMA. The Lough Melvin Special Protection Area is in favourable condition. Further details on Special Areas of Conservation and Special Protection Areas in the Lough Melvin and Arney LMA are available in the protected areas section of the website.

Map 3: Protected Areas in Lough Melvin and Arney LMA



Protected areas in Lough Melvin and Arney 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 Table 2 and illustrated in Map 3.

Table 2: Protected areas in Lough Melvin and Arney LMA

Protected Area Type	Location
<p>Waters used for the abstraction of drinking water (drinking water protected areas)</p>	<p>There are no surface water protected areas for drinking water. There are 17 groundwater protected areas for drinking water.</p>
<p>Areas designed to protect economically significant aquatic Species</p> <p>Freshwater Fish Directive (78/659/EEC)</p> <p>Shellfish Waters Directive (79/923/EC)</p>	<p>There are 198 km of rivers and 12.9 km² of lakes identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are no designated shellfish waters.</p>
<p>Bathing Waters These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)</p>	<p>There are no identified bathing waters.</p>
<p>Nutrient Sensitive Areas</p> <p>Areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC)</p> <p>Nitrates Directive (91/676/EEC)</p>	<p>There is 1 Urban Waste Water Treatment Directive sensitive area; Lough Neagh.</p> <p>A total territory approach has been adopted in Northern Ireland for the Nitrates Directive.</p>
<p>Areas designated for the protection of habitats or species (Natura 2000 sites) These are areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection.</p> <p>Habitats Directive (92/43/EEC)</p> <p>Birds Directive (79/409/EEC)</p>	<p>There are 4 water dependent Special Areas of Conservation; Lough Melvin, West Fermanagh Scarplands, Upper Lough Erne and Cuilcagh.</p> <p>There is 1 Special Protection Area; Upper Lough Erne</p>

Abbreviations

Term	Explanation
AFBI	Agri-Food and Biosciences Institute
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).
EPA, Ireland	Environmental Protection Agency, Ireland
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
IFI	Inland Fisheries Ireland
LMA	Local Management Area
NIEA	Northern Ireland Environment Agency
NIWL	Northern Ireland Water Limited
NPWS, Ireland	National Parks and Wildlife Service, Ireland
RHAT	River Hydromorphology Assessment Technique
ROI	Republic of Ireland
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 Erne & Melvin Catchment Stakeholder Group meetings or by contacting the Catchment Management Officer, Eileen Mallon.

Email: Eileen.Mallon@doeni.gov.uk

Telephone: 028 9263 3442

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