

Significant Water Management Issues

# Strule Local Management Area Action Plan and Update

December 2013

- 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 Upper Foyle Catchment Stakeholder Group members in 2012/2013
- If you, as an individual or organisation, can input additional information on actions or projects in the Strule Action Plan please contact [steven.mcdowell@doeni.gov.uk](mailto:steven.mcdowell@doeni.gov.uk) or telephone 028 92 623114

	LMA Action	Progress Report
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.	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
2	Carry out monitoring and assessment to identify and address pressures throughout the Strule LMA.  Conduct biological investigations to assess aquatic invertebrates	37 additional Biological sites were sampled in the summer of 2012 <ul style="list-style-type: none"> <li>• Ashgrove Tributary – 3 sites</li> <li>• Camowen River and Altanagh Burn – 7 sites</li> <li>• Eskragh Water Upper and Raveagh Burn – 3 sites</li> <li>• Fairy Water Upper and Drumgallon Burn – 13 sites</li> <li>• Owenreagh River and tributaries – 11 sites</li> </ul> From these additional monitoring river walks were identified
3	Carry out river walks to help determine the cause for decline in monitored elements within water bodies.	On-going - A total of 18 river walks have been planned throughout the Strule LMA, to be completed by 2015. To date 7 river walks have been completed on several water bodies: <ul style="list-style-type: none"> <li>• Eskragh Water</li> <li>• Camowen</li> <li>• Upper Owenreagh River</li> <li>• Camowen River</li> <li>• Glenscollip Burn</li> <li>• Cloghfin River</li> </ul> Issues concerning illegal pollution, waste and poor farming practices have been recorded and reported to the relevant Government Bodies.

	LMA Action	Progress Report
4	Carry out compliance assessment at Industrial Consented sites, WWTW and Cross - Compliance inspections at selected farms within the Strule LMA.	LMA Cross Compliance inspections by WMU Agricultural Regulations Team On-going monitoring and compliance.
5	Carry out agricultural advisory site visits were identified as an issue through river walks and spot checks or as identified by stakeholders	On-going monitoring.
6	Carry out fish monitoring and assessment for annual report on catchment status and WFD fish monitoring programme.	Loughs Agency – completed on an annual basis <a href="http://www.loughs-agency.org/fs/doc/publications/river-strule-river-mourne-and-tributaries-catchment-status-report-2011.pdf">http://www.loughs-agency.org/fs/doc/publications/river-strule-river-mourne-and-tributaries-catchment-status-report-2011.pdf</a>
7	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	Completed – report available on request
8	Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits.	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: <a href="http://www.doeni.gov.uk/niea/guidance_for_run-of_river_hydropower_schemes_in_northern_ireland_.pdf460kb_.pdf">http://www.doeni.gov.uk/niea/guidance_for_run-of_river_hydropower_schemes_in_northern_ireland_.pdf460kb_.pdf</a>
9	Create an inventory of physical structures within the river channel and bank structures to ensure required standards are met	NIEA staff have been trained in the use of this tool and are beginning to carry out assessments. If you are aware of any barriers in the Strule and would like to have this assessed using the UK Fish Passability Tool please contact your Catchment Officer.

	LMA Action	Progress Report
10	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.
11	Review of groundwater abstraction and planning applications where necessary.	On-going. The groundwater team is a regular consultee on groundwater abstractions and planning applications for all of Northern Ireland.
12	Review Rivers Agency's annual watercourse maintenance program within the Strule LMA	Quarterly meetings with Rivers Agency and DCAL to discuss maintenance programme and any other projects.
13	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms.	A measure within the Nitrates Action Programme is that all farms must carry out crop and soil management to minimise soil erosion and nutrient runoff. This is verified during cross-compliance visits
14	Raise awareness and promote the benefits of effective farm nutrient and waste management.	<p>All applicants to DARD Agri-Environment Schemes receive farm waste management advice as part of their application to the scheme. DARD has produced a 'Code of Good Agricultural Practice' which contains practical management advice on how farm wastes can be collected, stored and spread with minimal risk to the environment. Production of 'Improving Water Quality' leaflet for Landowners. This leaflet has been developed jointly with Loughs Agency, UFU and DARD to raise awareness amongst the agricultural sector. The issues were initially raised through the implementation meetings eg gravel removal, river litter.</p> <p>DARD has developed an agri-environment training course for farmers dealing with farm wastes and nutrient management planning.</p> <p>Water Framework Directive awareness talk given to CAFRE students in April 2011. Farm Nutrient and Waste Management Planning talk given to CAFRE students April 2012.</p> <p>Joint leaflet published.</p> <p>'Water Quality Plans in Action' article published in Farming Life Oct 2012</p>

	LMA Action	Progress Report
15	Develop leaflets and articles to promote effective farm nutrient and waste Management.	<p>Pesticide Working Group – NIW, UFU, DARD, CAFRE, AFBI, Rivers Agency, Loughs Agency and NIEA and they raise awareness of the problem with pesticide detections in Drinking Water Catchments.</p> <p>Through the 'Pesticide Working Group' have developed a Pesticide flyer. NIW published 'stop and think about the water you drink' under the same group. UFU sourced pesticide awareness leaflets from the Voluntary Initiative.</p> <p>'Landowner's Awareness – Improving Water Quality in your local area' leaflet developed in conjunction with DARD, UFU and Loughs Agency.</p> <p>NIEA attended the Horticultural Show at Greenmount to promote Pesticide issues.</p> <p>SCaMP NI -The Water Catchment Partnership - Representatives from the Water Catchment Partnership have recently attended a number of agricultural shows, farm grassland events, open days at Derg WTW and farm visits have begun in the Derg catchment area to raise awareness and provide best practice guidance on grassland pesticide use. This is a partnership between the Ulster Farmers Union (UFU), Northern Ireland Environment Agency (NIEA), Northern Ireland Water (NIW) and The College of Agriculture, Food &amp; Rural Enterprise (CAFRE). Our aim is to proactively work together to promote and raise awareness of best practice when using pesticides in the garden or on the farm, through a voluntary approach to improve water quality. Our initial focus is in the Derg catchment and if the project is successful the scheme will be rolled out to other drinking water catchments. The response to date has been excellent and CAFRE are reporting an increase in applications for training in the safe use of pesticides which is a good indicator that the message is getting across.</p>
16	Provide advice on protected area designations to work towards improving the condition assessments of the Special Area of Conservation (SAC's) in the Strule LMA.	<p>Natural Heritage regulates activities that may have an adverse impact on aquatic designated sites through the planning system as well as the consent/assent process. They do this through the implementation of the Environment (Northern Ireland) Order 2002 and the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended).</p> <p>Page 9 of the LMA information leaflet produced for Strule states the existing and planned measures which will be implemented in order to maintain and improve the water environment. Many of these measures will be carried out by NH through the implementation of the aforementioned regulations.</p>

	LMA Action	Progress Report
17	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)', 'Stop and think (about the water you drink)'.	<p>NIEA incorporates the 'Reduce Reuse Recycle', 'Bag It &amp; Bin It', 'Stop and Think (Not down the Sink)' messages in our information leaflets and promotes these philosophies during engagement with the public.</p> <p>NIEA in conjunction with Northern Ireland Water, have produced an information leaflet to highlight the dangers of pesticides around waterways and the potential impacts on wildlife and drinking water.</p> <p>These messages are promoted at events and functions.</p>
18	Carry out full RHAT assessment (River Hydromorphology Assessment Technique) to assess the hydromorphological classification and produce recommendations at a water body scale.	<p>Coolnagreana Burn NW010102030 – Completed            Camowen River – NW010102033 – Completed            Drumragh River – NW010102006 – Completed            The Black Water – NW010102009 – Completed            Cloghfin River – NW010102035 – Surveillance</p> <p>Reports available on request.</p>
19	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes within this catchment	<p><b>Strule River Abstraction:</b> This abstraction is planned to serve Derg WTWs but has yet to be brought into operation. We are awaiting the regulation 28 risk assessment for this source, the regulations require the risk assessment to be provided to DWI three months before bringing a new source into supply. The requirement for this additional abstraction point is detailed in relation to 'security of supply' within the current regulation 28 risk assessment report for the Derg WTWs which was provided to the DWI in December 2011. There are no enforcement processes in place in relation to Derg WTWs or its associated catchment.</p> <p>NIW are intending to send the Strule source Reg 28 RA to the DWI by 1<sup>st</sup> week of December.</p>
20	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans for the catchment at Coolnagreana Burn	The details on the Drinking Water Safety Plans (Regulation 28 Risk Assessments) are provided in the commentary to section 1 (above).

	LMA Action	Progress Report
21	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 at Lough Macrory, Lough Finegrean	<p>The DWI is supportive of local measures within individual catchments to maintain and improve water quality, including the development of SCAMP measures. This approach is detailed within recent guidance published jointly by DWI/WMU in July 2013 on 'The contribution of drinking water quality regulations to the implementation of the water framework directive in NI'. This guidance document identifies where the requirements of the Drinking Water Quality Regulations complement and support the implementation of the Water Framework Directive. It also provides guidance on practical steps that can be taken to ensure the long-term safety of drinking water supplies through establishing drinking water protected areas and safeguard zones. See <a href="http://www.doeni.gov.uk/niea/wfd_dwd_guidance_july_2013.pdf">http://www.doeni.gov.uk/niea/wfd_dwd_guidance_july_2013.pdf</a></p> <p>NI Water is also supportive of local measures that will improve water quality which will help to improve the raw water quality abstracted to our Water Treatment works. We have recently appointed a Catchment Manager to develop and deliver SCAMP projects within our water catchments. This will involve working closely with key stakeholders to agree and deliver programmes of work to improve raw water quality and also to enhance and protect biodiversity.</p>
22	Assess forestry operations, felling and redesign plans to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.	Discussions with Forest Service are ongoing through regular meetings and appropriate measures are incorporated into felling operations to ensure minimal risk to adjacent watercourses.
23	Highlight external funding opportunities for water management projects to local partners including the NIEA Water Quality Improvement Grant.	<p>Stakeholders informed about NIEA's Water Quality Improvement Grant Scheme <a href="http://www.doeni.gov.uk/niea/water-home/wfd/water_quality_improvement_grant.htm">http://www.doeni.gov.uk/niea/water-home/wfd/water_quality_improvement_grant.htm</a></p> <p>Minister Mark Durkan announced Challenge Fund on 18<sup>th</sup> October 2013. Provides funding for communities and organisations to develop local environmental projects. £1.2 million being funded (NIEA and Forest Service) <a href="http://www.nienvironmentlink.org/projects/nieachallengefund.php">http://www.nienvironmentlink.org/projects/nieachallengefund.php</a></p>

	LMA Action	Progress Report
24	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage throughout the LMA.	The official launch of the LMA pollution hotline signage project took place on 18 <sup>th</sup> April 2011 with NIEA Chief Executive John McMillan. The pollution hotline number is promoted frequently by NIEA events, publications and relevant websites. Identifying locations for the pollution hotline signs in the Strule LMA will take place in co-operation with angling clubs and local groups.
25	Promote public participation and raise awareness of catchment management issues by release of relevant press articles and web publication of Upper Foyle LMA e-zines	Updated on a regular basis on the web site and through local newspapers re local events.
26	Promote public participation and encourage local projects through the Water Community Awards	<p>Omagh Integrated Primary School and Pettigo District Angling Association (PDAA) were successfully awarded the £1000 Water Community Awards.</p> <ul style="list-style-type: none"> <li>• Greenshoots and Omagh Integrated School – Wonderful World of Water. The Project was to restore an area of wetland behind the school and to raise awareness of water through personal, local, regional and global context. Omagh Intergrated School finished work at the end of summer 2012 and to begin environmental education lessons in November 2012.</li> </ul>
27	Promote public participation and encourage local projects through the Water Quality Improvement Grants	<p>Several local projects have also been funded within the area to further engage local people and improve water quality.</p> <p>One project took place on the Quiggery to help with erosion, agricultural and litter issues and was awarded £10,000.</p> <p>A second project is now occurring on the Clogher Burn to remove invasive species, fence vulnerable areas, put in revetment and produce education material and was awarded £6,500.</p>
28	Promote public participation by supporting local community events	<ul style="list-style-type: none"> <li>• Staff attended The Balmoral Show 15<sup>th</sup> July 2013</li> <li>• Clogher Valley Show 31/07/2013 – Raising awareness of pesticides in our catchment and drinking water.</li> <li>• “Source of Dennet to Mouth” – awareness event publicity of Dennet angling group, walk and talk on litter.</li> </ul>

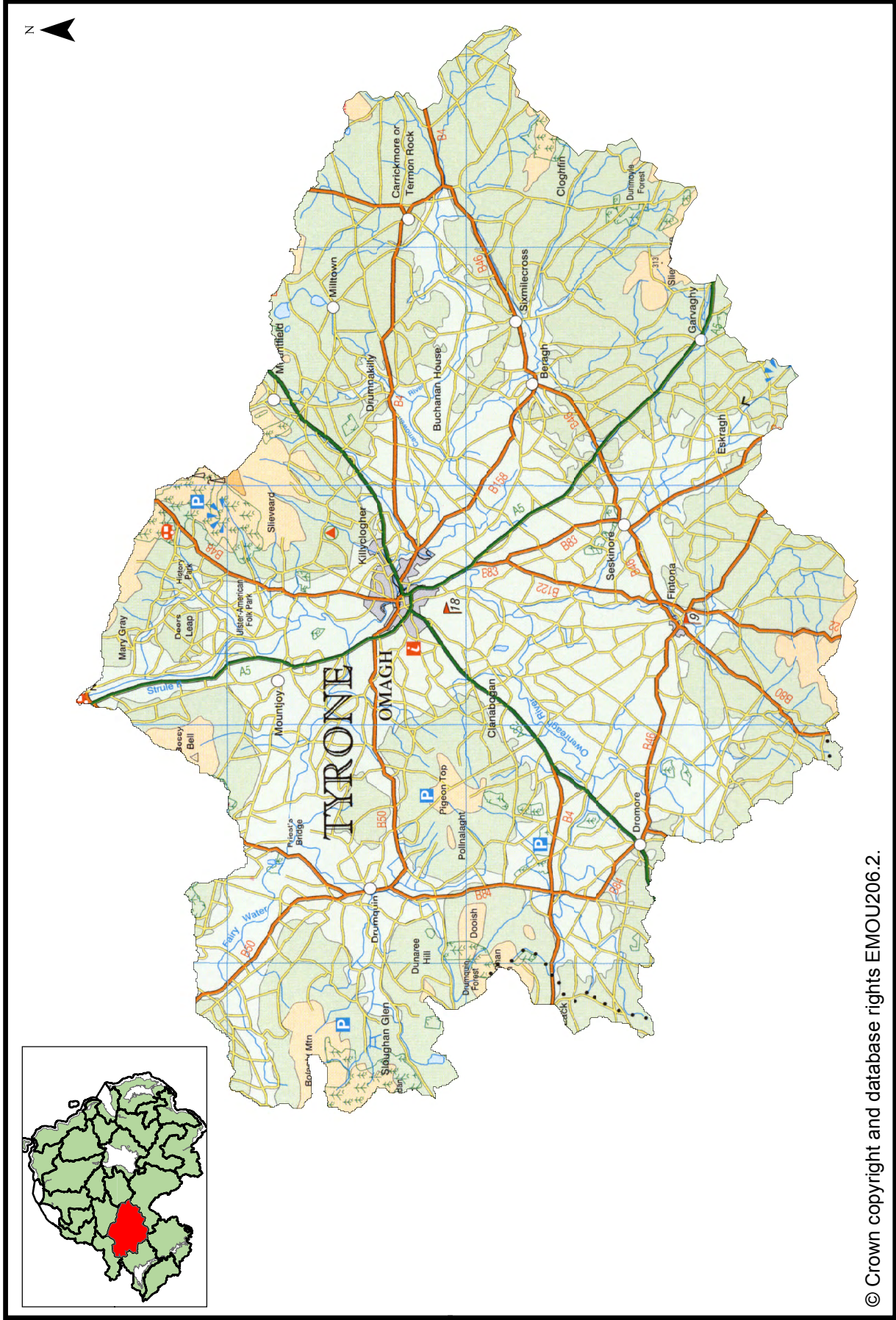


	LMA Action	Progress Report
29	Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide an open forum for discussion on water issues and encourage involvement in developing and implementing the Local Management Area Plan.	The Autumn meeting was on 14 <sup>th</sup> October 2013 at 7pm in Loughmacrory, Omagh. Presentations and minutes of meetings can be found at <a href="http://www.doeni.gov.uk/niea/water-home/wfd/public_partic_3/catchment_stakeholder_groups/upper_foyle.htm">http://www.doeni.gov.uk/niea/water-home/wfd/public_partic_3/catchment_stakeholder_groups/upper_foyle.htm</a>

**STRULE**  
Local Management Area



Map 1: Strule Local Management Area



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## **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 Strule 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 Strule Local Management Area (LMA)**

The Strule LMA (Map 1) is part of the North Western River Basin District and covers an area of approximately 869 km<sup>2</sup>. There are several major rivers in this LMA – River Strule, Camowen, Owenreagh, Quiggery and the Fairy Water. These rivers are of international importance for Atlantic Salmon. Other important fish species present within the LMA include trout (Sea trout and resident Brown Trout), Sea Lamprey, River/Brook Lamprey, European Eel, Pike and Perch.

Omagh is the largest town but there are numerous smaller towns and villages scattered throughout the area – Fintona, Dromore, Carrickmore and Beragh. The main land area usage is improved grassland. The area supports a wide range of natural habitats several of which are protected. In the North West the Fairy Water Bogs are a good representative example of lowland raised bog and comprises one of the largest areas of intact active bogs in Northern Ireland.

The north east of the LMA is part of the Sperrin Area of Outstanding Natural Beauty. The area also supports a wide range of recreational activities including walking, angling, cycling and historical days out. Details of the protected areas are summarised in a table at the end of this report.

## **What is the status of waters in the Strule LMA**

75% of surface water bodies in Strule LMA have been classified as less than good status. Many rivers failed to achieve good status due to impacts on invertebrate, macrophyte and diatom communities and low levels of dissolved oxygen.

All of the groundwater bodies in Strule LMA are achieving good status.

Four water bodies in the area were identified as being impacted by abstraction and flow regulation. The rivers affected were: Drumnakilly Burn, Glenscollip Burn, Black Water and Coolnagreana Burn. Two of these have been classified as heavily modified – Black Water and Coolnagreana Burn.

A number of biological and chemical water quality elements used in classification can be affected by both diffuse and point source pollution. In this LMA the main impacts in the rivers were observed in macrophyte and diatom communities which are associated with nutrient enrichment. The rivers that were affected were: Owenreagh, Owenreagh river tributary, Drumragh, Strule, Cappagh Burn, Camowen, Cloghfin, Glashagh, Fairywater, Eskragh, Granagh Burn, Quiggery and Routing Burn.

Impacts were also observed in invertebrate communities and dissolved oxygen levels. These elements are associated with organic enrichment. The rivers affected were: Owenreagh, Owenreagh river tributary, Fairy water, Camowen, Eskragh Water and Quiggery.

In four rivers elevated levels of Specific Pollutants/Priority Substances (specifically ammonia) were observed. The main rivers affected were: Eskragh Waters, Glenscollip Burn and Routing Burn.

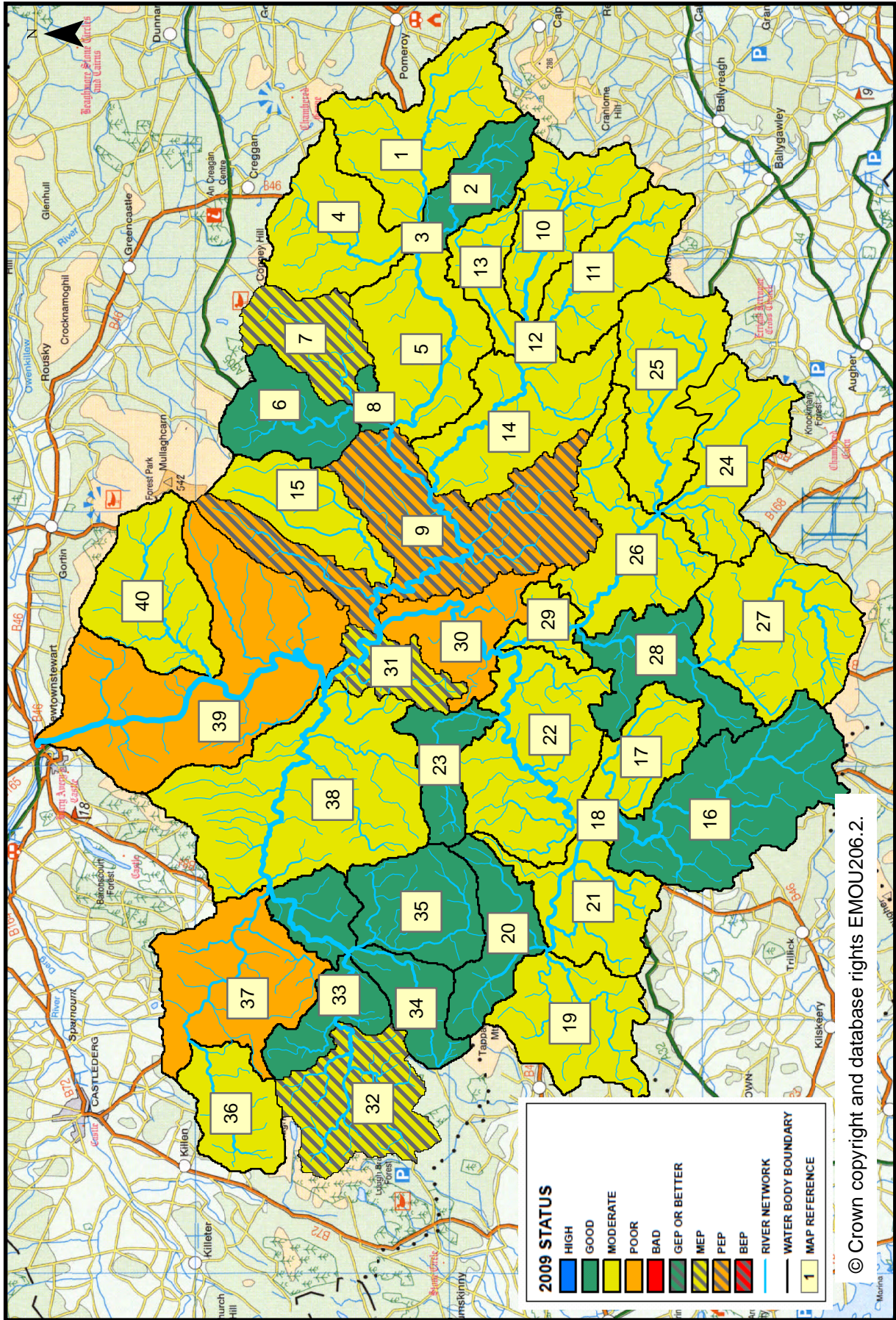
Eighteen water bodies were identified as being affected by changes to morphology (physical habitat). The main rivers affected were: Black Water, Drumquin river tributary, Fairy Water, Drumnakilly Burn, Granagh Burn, Camowen, Cloghfin, Glashagh Burn, Glenscollip, Owenreagh, Owenreagh river tributary, Quiggery, Altanagh Burn and Routing Burn. The impact on Routing Burn was due to historical engineering. The changes to the morphology did not result in a downgrading of the overall status of these water bodies but we will continue to monitor these rivers for any further changes.

The water environment in Northern Ireland has been impacted by the introduction of invasive alien species. Species which have already become established in this area include:

- Himalayan Balsam (*Impatiens glandulifera*)
- Japanese Knotweed (*Fallopia japonica*)

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



**Table 1: 2009 status and proposed objectives**

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
1	UKGBNI1NW010102080	Camowen River	Moderate	Good	11
2	UKGBNI1NW010102084	Altanagh Burn	Good	Good	11
3	UKGBNI1NW010102034	Camowen River	Moderate	Good	12
4	UKGBNI1NW010102032	Granagh Burn	Moderate	Good	12
5	UKGBNI1NW010102092	Camowen River	Moderate	Good	12
6	UKGBNI1NW010102029	Drumnakilly Burn	Good	Good	13
7	UKGBNI1NW010102030	Coolnagreana Burn	MEP	MEP	13
8	UKGBNI1NW010102031	Drumnakilly Burn	Good	Good	14
9	UKGBNI1NW010102033	Camowen River	PEP	MEP	15
10	UKGBNI1NW010102087	Cloghfin River	Moderate	Good	16
11	UKGBNI1NW010102088	Cloghfin River	Moderate	Good	16
12	UKGBNI1NW010102037	Cloghfin River	Moderate	Good	16
13	UKGBNI1NW010102036	Glashagh Burn	Moderate	Good	17
14	UKGBNI1NW010102035	Cloghfin River	Moderate	Good	17
15	UKGBNI1NW010102039	Glenscollip Burn	Moderate	Good	18
16	UKGBNI1NW010102054	Owenreagh River	Good	Good	18
17	UKGBNI1NW010102001	Owenreagh River tributary	Moderate	Good	19
18	UKGBNI1NW010102040	Owenreagh River	Moderate	Good	19
19	UKGBNI1NW010102046	Owenreagh River tributary	Moderate	Good	20
20	UKGBNI1NW010102051	Owenreagh River tributary	Good	Good	20
21	UKGBNI1NW010102053	Owenreagh River	Moderate	Good	21
22	UKGBNI1NW010102018	Owenreagh River	Moderate	Good	21



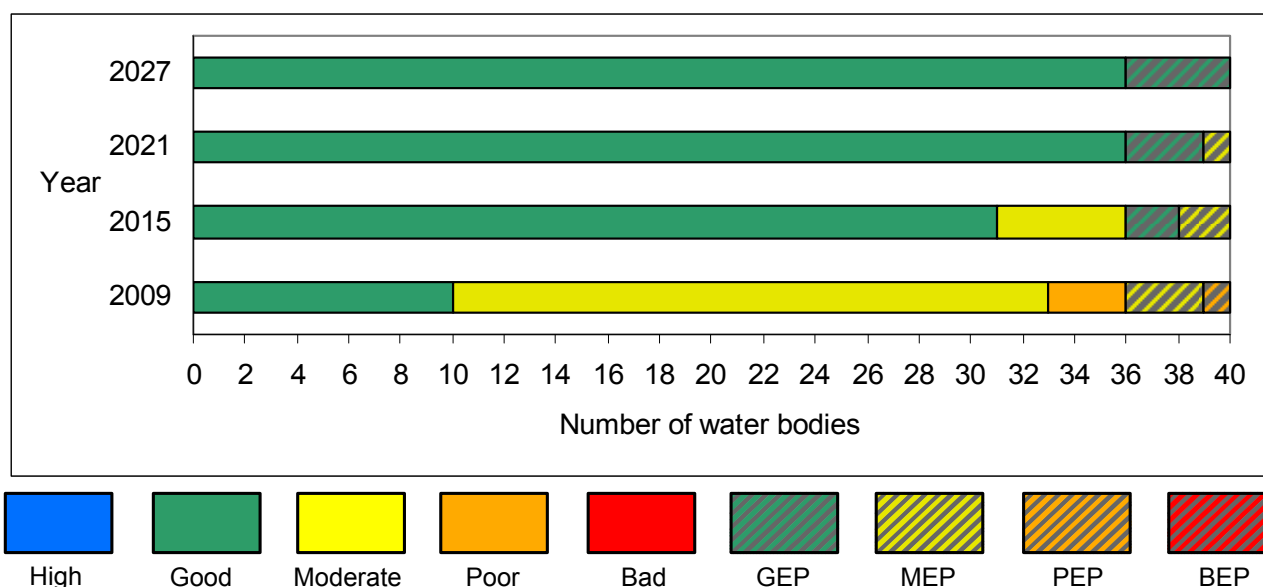
Table 1: 2009 status and proposed objectives (continued)

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
23	UKGBNI1NW010102017	Creevan Burn	Good	Good	21
24	UKGBNI1NW010102089	Eskragh Water	Moderate	Good	22
25	UKGBNI1NW010102090	Routing Burn	Moderate	Moderate	22
26	UKGBNI1NW010102008	Eskragh Water	Moderate	Moderate	23
27	UKGBNI1NW010102082	Quiggery River	Moderate	Good	23
28	UKGBNI1NW010102019	Quiggery River	Good	Good	23
29	UKGBNI1NW010102007	Quiggery River	Moderate	Good	24
30	UKGBNI1NW010102006	Drumragh River	Poor	Moderate	24
31	UKGBNI1NW010102093	River Strule	MEP	GEP	25
32	UKGBNI1NW010102009	The Black Water	MEP	GEP	25
33	UKGBNI1NW010102003	The Black Water	Good	Good	26
34	UKGBNI1NW010102052	Drumquin River	Good	Good	26
35	UKGBNI1NW010102004	Drumquin River tributary	Good	Good	26
36	UKGBNI1NW010102010	Fairy Water	Moderate	Good	27
37	UKGBNI1NW010102002	Fairy Water	Poor	Moderate	28
38	UKGBNI1NW010102041	Fairy Water	Moderate	Good	28
39	UKGBNI1NW010102020	River Strule	Poor	Moderate	29
40	UKGBNI1NW010102021	Cappagh Burn	Moderate	Good	29

### What improvements do we plan to achieve?

We have set environmental objectives to deliver improvements as shown below. For our surface waters we aim to achieve good status or better in 77.5% and GEP (for Heavily Modified Water Bodies) in 5% of our surface waters by 2015. We also aim to maintain good status in 100% of our ground waters.

**Figure 1: 2009 status and proposed objectives for surface waters in the Strule LMA**



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

There are a number of actions which will be implemented in the Strule LMA in order to maintain and improve the water environment. The list of actions that follows sets out details of actions to be applied throughout the Strule 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 Strule LMA.	DOE NIEA	Mar 2014
3	Carry out compliance assessment at Industrial Consented sites, WWTW and cross-compliance inspections at selected farms within the Faughan LMA.	DOE NIEA	Mar 2014
4	Carry out agricultural advisory site visits where identified as an issue through river walks, spot checks or as identified by stakeholders.	DOE NIEA	Mar 2014
5	Carry out fish monitoring and assessment for annual report on catchment status and WFD fish monitoring programme.	Loughs Agency	Mar 2014
6	Carry out pre and post fish habitat improvement works survey where funding is committed for works.	Loughs Agency, DOE NIEA	Mar 2014
7	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Mar 2013
8	Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits.	DOE NIEA	Mar 2014
9	Create an inventory of physical structures within the river channel and bank structures where identified by stakeholders as an issue.	DOE NIEA, Loughs Agency	Mar 2014
10	Complete the phosphorus nutrient budget work for Northern Ireland to establish nutrient inputs from different sectors.	DOE NIEA, AFBI	Mar 2014
11	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA	Mar 2014
12	Review Rivers Agency's annual watercourse maintenance program.	DOE NIEA, DARD Rivers Agency	Mar 2014
13	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
14	Raise awareness and promote the benefits of effective pollution control and farm nutrient and waste management.	DARD Countryside Management Branch	Mar 2014
15	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
16	Develop leaflets and articles to promote effective farm nutrient and waste management.	DARD Countryside Management Branch, DOE NIEA	Mar 2014

	Action to be taken	Action to be taken by	Target Date
17	Promote riparian zone management project opportunities such as buffer zone creation, fencing, native species planting and in-channel habitat improvement including spawning bed and nursery habitat improvement.	Loughs Agency	Mar 2014
18	Provide advice on protected area designations to work towards improving unfavourable condition assessments of the SACs in the Strule LMA.	DOE NIEA	Mar 2014
19	Support pollution prevention campaigns such as 'Reduce Reuse Recycle', 'Bag It & Bin It', 'Stop and Think (Not Down the Sink)' and 'Stop and Think (About the water you Drink)'.	DOE NIEA, NIWL	Mar 2014
20	Highlight external funding opportunities for water management projects to local partners including the NIEA Water Quality Improvement Grant.	DOE NIEA	Mar 2014
21	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage throughout the Strule LMA.	DOE NIEA	Mar 2014
22	Promote public participation and raise awareness of catchment management issues by release of relevant articles and web publication of the Upper Foyle e-zines.	DOE NIEA	Mar 2014
23	Promote public participation by organising two Catchment Stakeholder Group meetings per year to provide an open forum for discussion on water issues and encourage involvement in developing and implementing the Local Management Area Action Plan.	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.

UKGBNI1NW010102080		Camowen River	2009 Status: Moderate	
	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	Conduct biological investigations to assess aquatic invertebrates at areas identified as being under significant pressure to help identify sources of organic pollution in the catchment.		DOE NIEA	Completed
3	Carry out a river walk to determine the decline in the aquatic invertebrate community associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Carry out compliance assessment and investigate any downstream impact from quarries and any other industrial discharges.		DOE NIEA	Mar 2014
5	Carry out full RHAT assessment on Camowen River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102084		Altanagh Burn	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	Mar 2014
2	Investigate sources of sediment in the Altanagh Burn catchment to determine and address the levels of BOD looking at the level of sedimentation from quarries.		DOE NIEA	Mar 2014
3	Carry out a river walk in the lower reaches of the Altanagh Burn.		DOE NIEA	Mar 2014
4	Carry out full RHAT assessment on Altanagh Burn to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
5	Assess forestry operations, felling and redesign plans for Altmore Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102034		Camowen River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Pressures within this small water body are from upstream water bodies and the actions for these will be the main means of improving this water body, see upstream water bodies UKGBNI1NW010102080 Camowen River and UKGBNI1NW010102084 Altanagh Burn.		DOE NIEA	Mar 2014
2	Investigate failure of aquatic invertebrates which are at moderate status within the catchment.		DOE NIEA	Mar 2014
3	Carry out full RHAT assessment on Camowen River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102032		Granagh Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Investigate identified water quality impacts by assessing sources of organic pollution in the water body.		DOE NIEA	Mar 2014
2	Carry out full RHAT assessment on Granagh Burn to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102092		Camowen River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out a river walk to determine the decline in the aquatic invertebrate community associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
2	Provide advice on protected area designations for Deroran Bog Special Area of Conservation (SAC) located in this water body.		DOE NIEA	Mar 2014
3	Carry out pollution prevention and enforcement measures, investigate any unconsented discharges and where required ensure Water Order consent is obtained.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102029		Drumnakilly Burn	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	Mar 2014
2	Assess forestry operations, felling and redesign plans for Killens forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
3	Provide advice on protected area designations for Mullaghcam, Murrins Area of Special Scientific Interest (ASSI), Murrins Forest Nature Reserve and Sperrins AONB located in 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 J.](#)

UKGBNI1NW010102030		Coolinagreana Burn	2009 Status: MEP	
	Action to be taken		Action to be taken by	Target Date
1	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.		NIWL	Dec 2015
2	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes within this catchment.		DOE DWI	Dec 2015
3	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 at Lough Macrory, Lough Finegrean.		DOE DWI, DOE NIEA and NIWL	Dec 2015
4	Obtain data on reservoir / lake levels, catchment flows and transfers of water from other water body sources to inform the review of the current abstraction / impoundment licence at Lough Macrory, Lough Finegrean. Agree monitoring plans and include details on augmented flows returned to the waterway below.		DOE NIEA	Dec 2015
5	Review the current abstraction licence to finalise maximum abstraction volumes, take account of seasonal variations and ensure the ecological need for compensation flows are fully considered at Lough Macrory, Lough Finegrean.		DOE NIEA	Dec 2015
6	Carry out full RHAT assessment (River Hydromorphology Assessment Technique) to assess the hydromorphological classification and produce recommendations at a water body scale.		DOE NIEA	Completed

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

UKGBNI1NW010102031		Drumnakilly Burn	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	Mar 2014
2	Carry out compliance assessment and investigate any downstream impact from industrial discharges.		DOE NIEA	Mar 2014

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



UKGBNI1NW010102033		Camowen River	2009 Status: PEP	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution causing nutrient enrichment and invertebrate suppression in the catchment.		DOE NIEA	Mar 2014
2	Carry out a river walk upstream of monitoring site to investigate the decline in the aquatic invertebrate community and plant communities associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
3	Carry out pollution prevention and enforcement measures, investigate any unconsented industrial discharges and where required ensure Water Order consent is obtained.		DOE NIEA	Mar 2014
4	Carry out agricultural advisory site visits where necessary, as identified through river walks.		DOE NIEA	Mar 2014
5	Carry out full RHAT assessment on Camowen River to enable classification and recommendations at the water body scale.		DOE NIEA	Completed
6	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.		NIWL	Dec 2015
7	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes within this catchment.		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 at Glenhordial DWS.		DOE DWI, DOE NIEA and NIWL	Dec 2015
9	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species.		DOE NIEA	Mar 2014
10	Obtain data on reservoir / lake levels, catchment flows and transfers of water from other water body sources to inform the review of the current abstraction / impoundment licence at Glenhordial DWS. Agree monitoring plans and include details on augmented flows returned to the waterway below.		DOE NIEA	Dec 2015
11	Review the current abstraction licence to finalise maximum abstraction volumes, take account of seasonal variations and ensure the ecological need for compensation flows are fully considered at Glenhordial DWS.		DOE NIEA	Dec 2015
12	Provide advice on protected area designations for Deroran Bog Special Area Conservation (SAC) and Annaghagh Bog Area of Special Scientific Interest (ASSI) located in 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 J.](#)

UKGBNI1NW010102087		Cloghfin River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution to investigate the decline in the Phytobenthos levels in the catchment.		DOE NIEA	Mar 2014
2	Carry out compliance assessment and investigate any downstream impact from industrial / quarry discharges.		DOE NIEA	Mar 2014
3	Carry out full RHAT assessment on Cloghfin River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102088		Cloghfin River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution to investigate the decline in the Phytobenthos levels in the catchment.		DOE NIEA	Mar 2014
2	Carry out compliance assessment and investigate any downstream impact from industrial / quarry discharges.		DOE NIEA	Mar 2014
3	Carry out full RHAT assessment on Cloghfin River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
4	Assess forestry operations, felling and redesign plans for Dunmoyle and Tullylish forests to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102037		Cloghfin River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Pressures within this small water body are from upstream water bodies and the actions for these will be the main means of improving this water body, see upstream water bodies UKGBNI1NW010102087 Cloughfin River and UKGBNI1NW010102088 Cloughfin River on the UKGBNI1NW010102037 Cloughfin River.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102036		Glashagh Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution causing nutrient enrichment in the catchment.		DOE NIEA	Mar 2014
2	Carry out full RHAT assessment on Glashagh Burn to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102035		Cloghfin River	2009 Status: Moderate	
	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 a river walk to determine the decline in the phytobenthos community associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
3	Provide advice on protected area designations for Deroran Bog Special Area of Conservation (SAC) and Annaghagh Bog Area of Special Scientific Interest (ASSI) located in this water body.		DOE NIEA	Mar 2014
4	Carry out full RHAT assessment on Cloghfin River to enable classification and recommendations at the water body scale.		DOE NIEA	Completed
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102039		Glenscollip Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Investigate identified water quality impacts i.e. elevated ammonia levels in Glenscollip Burn.		DOE NIEA	Mar 2014
2	Carry out a river walk to investigate agricultural practices in the catchment.		DOE NIEA	Mar 2014
3	Assess forestry operations, felling and redesign plans for Killens forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
4	Provide advice on protected area designations for Mullaghcarn Area of Special Scientific Interest (ASSI) located in 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 J.](#)

UKGBNI1NW010102054		Owenreagh 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	Mar 2014
2	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
3	Carry out a river walk to investigate pressures in the catchment.		DOE NIEA	Mar 2014
4	Carry out agricultural advisory site visits where necessary, as identified on river walk.		DOE NIEA	Mar 2014
5	Carry out pollution prevention and enforcement measures, if necessary, to prevent future industrial consents failures.		DOE NIEA	Mar 2014
6	Assess forestry operations felling and redesign plans for Lissaneden, Tattymoyle forests to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
7	Provide advice on protected area designations for Tonnagh Beg Bog SAC.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102001		Owenreagh River tributary	2009 Status: Moderate	
	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	Conduct biological investigations to assess aquatic invertebrates at areas identified as being under significant pressure to help identify sources of organic pollution in the Owenreagh River.		DOE NIEA	Completed
3	Carry out a river walk upstream of Cranny Burn to investigate the decline in the aquatic invertebrate community and dissolved oxygen levels associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Provide advice on protected area designations for Cranny Bogs and Tonnagh Beg Bog Special Areas of Conservation (SAC) located in this water body.		DOE NIEA	Mar 2014
5	Assess sources of organic pollution including domestic wastewater treatment systems.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102040		Owenreagh River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Pressures within this small water body are from upstream water bodies and the actions for these will be the main means of improving this water body, see upstream water bodies UKGBNI1NW010102001 Owenreagh River Tributary.		DOE NIEA	Mar 2014
2	Assess sources of organic pollution causing nutrient enrichment and invertebrate suppression in the catchment.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102046		Owenreagh River tributary	2009 Status: Moderate	
	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 a river walk to investigate the decline in the dissolved oxygen levels and elevated in the catchment.		DOE NIEA	Mar 2014
3	Carry out a river walk to spot check areas of concern in the Owenreagh River tributary catchment.		DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures, if necessary, to prevent future industrial consents failures.		DOE NIEA	Mar 2014
5	Assess forestry operations, felling and redesign plans for forest in Greenan mountain area to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102051		Owenreagh 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	Mar 2014
2	Assess forestry operations, felling and redesign plans for Greenan and Pigeon Top Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA, DARD Forest Service and Forestry Operator	Mar 2014
3	Provide advice on protected area designations for the Straduff Area of Special Scientific Interest (ASSI).		DOE NIEA	Mar 2014
4	Carry out agricultural advisory site visits where necessary, as identified through river walks.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102053		Owenreagh River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution causing nutrient enrichment in the catchment.		DOE NIEA	Mar 2014
2	Carry out compliance assessment and investigate any downstream impact from industrial discharges.		DOE NIEA	Mar 2014
3	Assess forestry operations, felling and redesign plans for Lough Braden - Pigeon Top and Aghadulla forests North and South to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102018		Owenreagh River	2009 Status: Moderate	
	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	Assess sources of organic pollution through biological investigations to identify the pressures in this catchment.		DOE NIEA	Completed
3	Carry out a river walk to assess the low biotic scores at the monitoring site.		DOE NIEA	Mar 2014
4	Carry out monitoring and assessment to investigate the moderate dissolved oxygen status in this catchment.		DOE NIEA	Mar 2014
5	Provide advice on protected area designations for Cranny Bogs Special Area Conservation (SAC) located in 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 J.](#)

UKGBNI1NW010102017		Creevan Burn	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	Mar 2014
2	Carry out pollution prevention and enforcement measures, if necessary, to ensure minimal impact from industries and mines in the water body.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102089		Eskragh Water	2009 Status: Moderate	
	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	Assess sources of organic pollution through biological investigations to identify the pressures in this catchment.		DOE NIEA	Completed
3	Carry out a river walk to determine the decline in the aquatic invertebrate associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Investigate identified water quality impacts i.e. elevated ammonia levels in Eskragh Water.		DOE NIEA	Mar 2014
5	Carry out compliance assessment and investigate any downstream impact from industrial / quarry discharges.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102090		Routing Burn	2009 Status: Moderate	
	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	Investigate identified water quality impacts i.e. elevated ammonia levels in Routing Burn.		DOE NIEA	Mar 2014
3	Assess sources of organic pollution causing nutrient enrichment in the catchment.		DOE NIEA	Mar 2014
4	Assess forestry operations, felling and redesign plans for Knockmany forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
5	Carry out full RHAT assessment on Routing Burn to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				



UKGBNI1NW010102008		Eskragh Water	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Investigate identified water quality impacts by assessing sources of organic pollution in the water body.		DOE NIEA	Mar 2014
2	Carry out monitoring and assessment to investigate the low dissolved oxygen and elevated ammonia levels in this catchment.		DOE NIEA	Mar 2014
3	Assess forestry operations, felling and redesign plans for Seskinore Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102082		Quiggery River	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution causing nutrient enrichment in the catchment.		DOE NIEA	Mar 2014
2	Carry out full RHAT assessment on Quiggery River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014

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

UKGBNI1NW010102019		Quiggery 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	Mar 2014
2	Support local environmental initiatives, promote and encourage local projects through funding such as the NIEA Water Quality Improvement Grant.		DOE NIEA	Mar 2014
3	Provide advice on protected area designations for Cranny Bogs and Tonnagh Beg Bog Special Area Conservation (SAC) located in 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 J.](#)

UKGBNI1NW010102007		Quiggery River	2009 Status: Moderate	
	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 a river walk to investigate the decline in the dissolved oxygen levels in the catchment.		DOE NIEA	Mar 2014
3	Carry out full RHAT assessment on Quiggery River to enable classification and recommendations at the water body scale.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102006		Drumragh River	2009 Status: Poor	
	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	Assess sources of organic pollution to investigate the decline in the Phytobenthos levels in the catchment.		DOE NIEA	Mar 2014
3	Carry out a river walk to determine the decline in the phytobenthos community in the catchment.		DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures, if necessary, to prevent future industrial consents failures.		DOE NIEA	Mar 2014
5	Carry out full RHAT assessment on Drumragh River to enable classification and recommendations at the water body scale.		DOE NIEA	Completed
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102093		River Strule	2009 Status: MEP	
	Action to be taken		Action to be taken by	Target Date
1	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended.		DOE NIEA	Mar 2014
2	Carry out pollution prevention and enforcement measures, if necessary, to prevent future industrial consents failures.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102009		The Black Water	2009 Status: MEP	
	Action to be taken		Action to be taken by	Target Date
1	Identification of contamination risks from 'source to tap' through the development of drinking water safety plans.		NIWL	Dec 2015
2	Continue to monitor mitigation measures through Drinking Water Inspectorate regulatory processes within this Black Water catchment.		DOE DWI	Dec 2015
3	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 at Lough Bradan.		DOE DWI, DOE NIEA and NIWL	Dec 2015
4	Undertake additional survey monitoring of the raw water during identified periods of high risk within the catchment between May to November at Lough Bradan WWTW.		NIWL	Mar 2014
5	Obtain data on reservoir / lake levels, catchment flows and transfers of water from other water body sources to inform the review of the current abstraction / impoundment licence at Lough Bradan. Agree monitoring plans and include details on augmented flows returned to the waterway below.		DOE NIEA	Dec 2015
6	Review the current abstraction licence to finalise maximum abstraction volumes, take account of seasonal variations and ensure the ecological need for compensation flows are fully considered at Lough Bradan.		DOE NIEA	Dec 2015
7	Assess forestry operations, felling and redesign plans for Lough Bradan forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
8	Carry out full RHAT assessment (River Hydromorphology Assessment Technique) to assess the hydromorphological classification and produce recommendations at a water body scale.		DOE NIEA	Completed
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102003		The Black 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 better.		DOE NIEA	Mar 2014
2	Provide advice on protected area designations for the Lough Corr Area of Special Scientific Interest (ASSI).		DOE NIEA	Mar 2014
3	Carry out full RHAT assessment on the Black Water to enable classification and recommendations at the water body scale.		DOE NIEA	Completed

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

UKGBNI1NW010102052		Drumquin 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	Mar 2014
2	Provide advice on protected area designations for Fairy Water Bogs Special Area of Conservation (SAC) and Dunaree Hill Area of Special Scientific Interest (ASSI) located in 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 J.](#)

UKGBNI1NW010102004		Drumquin 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	Mar 2014
2	Assess forestry operations, felling and redesign plans for Pigeon Top forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forestry	Mar 2014

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

UKGBNI1NW010102010		Fairy Water	2009 Status: Moderate	
	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	Conduct biological investigations to assess aquatic invertebrates at areas identified as being under significant pressure to help identify sources of organic pollution in the Fairy Water.		DOE NIEA	Completed
3	Carry out a river walk to determine the decline in the aquatic invertebrate community associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Carry out monitoring and assessment to investigate the dissolved oxygen levels in this catchment.		DOE NIEA	Mar 2014
5	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species.		DOE NIEA	Mar 2014
6	Assess forestry operations, felling and redesign plans for Meencaragh Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102002		Fairy Water	2009 Status: Poor	
	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	Conduct biological investigations to assess aquatic invertebrates causing nutrient enrichment and invertebrate suppression in the catchment.		DOE NIEA	Completed
3	Carry out a river walk to determine the decline in the aquatic invertebrate and aquatic plant communities along with dissolved oxygen levels associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Carry out monitoring and assessment to investigate the poor dissolved oxygen status in this catchment.		DOE NIEA	Mar 2014
5	Carry out agricultural advisory site visits where necessary, as identified on river walk.		DOE NIEA	Mar 2014
6	Provide advice on protected area designations for the Fairy Water Bogs Area of Special Scientific Interest (ASSI).		DOE NIEA	Mar 2014
7	Assess forestry operations, felling and redesign plans for Baronscourt and Lough Bradan Forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014

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

UKGBNI1NW010102041		Fairy Water	2009 Status: Moderate	
	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	Assess sources of organic pollution causing nutrient enrichment and invertebrate suppression in the catchment.		DOE NIEA	Mar 2014
3	Carry out monitoring and assessment to investigate the moderate dissolved oxygen status in this catchment.		DOE NIEA	Mar 2014
4	Provide advice on protected area designations for Fairy Water Bogs and Tully Bog both Special Areas of Conservation (SAC).		DOE NIEA	Mar 2014

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

UKGBNI1NW010102020		River Strule	2009 Status: Poor	
	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	Assess sources of organic pollution to investigate the decline in the Phytobenthos levels in the catchment.		DOE NIEA	Mar 2014
3	Carry out a river walk to determine the decline in the phytobenthos community associated with agricultural practices in the catchment.		DOE NIEA	Mar 2014
4	Create an inventory of physical structures within the river channel and bank structures to assess the fish passability in the catchment.		DOE NIEA	Mar 2014
5	Carry out pollution prevention and enforcement measures, if necessary, to prevent future industrial consents failures.		DOE NIEA	Mar 2014
6	Assess forestry operations, felling and redesign plans for Gortin Glen forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DOE NIEA and DARD Forest Service	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

UKGBNI1NW010102021		Cappagh Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution to investigate the decline in the Phytobenthos levels in the catchment.		DOE NIEA	Mar 2014
2	Assess forestry operations, felling and redesign plans for Gortin Glen forest to ensure appropriate measures are in place to mitigate risk to adjacent watercourses.		DARD Forest Service	Mar 2014
3	Create an inventory of physical structures within the river channel and bank structures to assess the fish passability in the catchment.		DOE NIEA	Mar 2014
<a href="#">A number of catchment wide actions also apply to this water body. These can be found on Page J.</a>				

## **What other measures are being implemented to maintain and improve the water environment in the Strule LMA?**

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

Existing and planned measures include those which have been put in place to meet legal requirements. Those which apply in this LMA include:

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

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

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

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 is an element in the series of supplementary measures for the North West RBD.



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

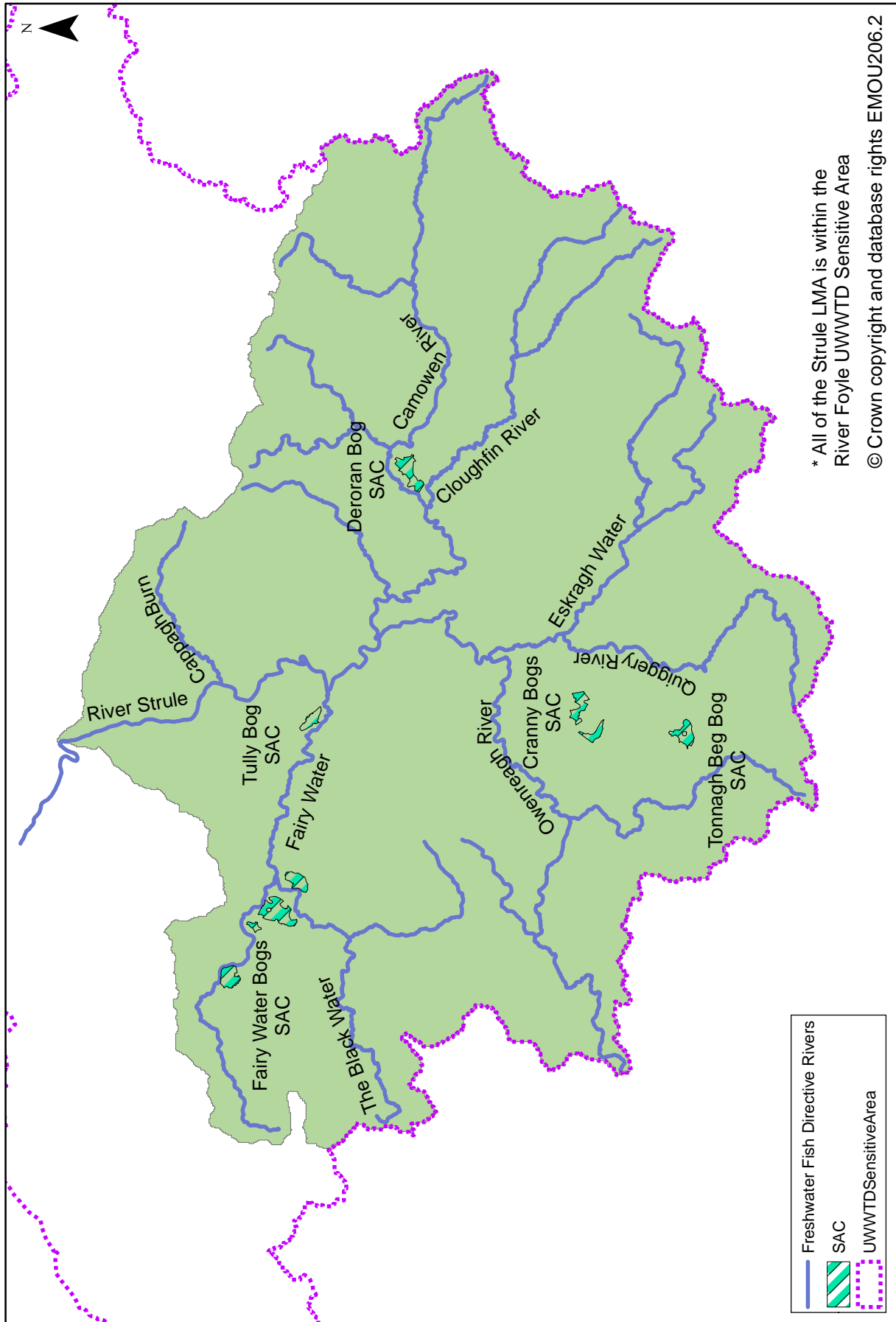
Special Areas of Conservation (Habitats Directive) and Special Protection Areas (Birds Directive) are assessed as being in favourable or unfavourable condition. These areas are being examined to determine if water dependent features are present.

Features in Tonnagh Beg Bog Special Area of Conservation are in unfavourable condition, but they are recovering with current measures. Fairy Water Bogs, Cranny Bogs, Tully Bog and Deroran Bog Special Areas of Conservation in the Strule LMA have water dependent features which are in unfavourable condition.

There are no Special Protection Areas in the Strule LMA. Further details on Special Areas of Conservation in Strule LMA are available in the protected areas section of the website.

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Map 3: Protected Areas in Strule LMA



## Protected Areas in the Strule 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 Strule LMA**

Protected Area Type	Location
<p><b>Waters used for the abstraction of drinking water (drinking water protected areas)</b></p>	<p>There are 5 surface water protected areas for drinking water. There is 1 groundwater protected area for drinking water.</p>
<p><b>Areas designed to protect economically significant aquatic Species</b></p> <p>Freshwater Fish Directive (78/659/EEC)</p> <p>Shellfish Waters Directive (79/923/EC)</p>	<p>There are 298 km of rivers identified under the Freshwater Fish Directive, all designated Salmonid.</p> <p>There are no designated shellfish waters.</p>
<p><b>Bathing Waters</b> These are bathing waters identified under the Bathing Waters Directives (76/160/EEC)</p>	<p>There are no identified bathing waters.</p>
<p><b>Nutrient Sensitive Areas</b></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; River Foyle.</p> <p>A total territory approach has been adopted in Northern Ireland for the Nitrates Directive.</p>
<p><b>Areas designated for the protection of habitats or species (Natura 2000 sites)</b> 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 5 water dependent Special Areas of Conservation; Cranny Bogs, Deroran Bog, Fairywater Bog, Tonnagh Beg Bog and Tully Bogs.</p> <p>There are no water dependent Special Protection Areas.</p>

## Abbreviations

Term	Explanation
AFBI	Agri-Food and Biosciences Institute
AONB	Area of Natural Beauty
ASSI	Area of Special Scientific Interest
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
DWS	Drinking Water Storage
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
LA	Loughs Agency
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
SAC	Special Area of Conservation
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 Foyle Catchment Stakeholder Group meetings or by contacting the Catchment Management Officer, Steven McDowell.

Email: [steven.mcdowell@doeni.gov.uk](mailto:steven.mcdowell@doeni.gov.uk)

Telephone: 028 9262 3114.

Further details are available at [www.doeni.gov.uk/niea/nw-workingtogether](http://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.

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