

Significant Water Management Issues

Six Mile Water Local Management Area Action Plan and Update

December 2013

UKGBNI1NB030305202	Six Mile Water	2009 Status: Good
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	Action	Action to be taken by	Target Date
1	Maintain current regulatory controls as water body status is Good or better	DOE NIEA	Dec 2015

UKGBNI1NB030305203	Ballynure Water	2009 Status: Moderate
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	Action	Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates on Castle Water at Hillis Bridge, Church Road and Larne Road	DOE NIEA	Complete
2	Carry out a river walk on Castle Water at Ballynure village	DOE NIEA	Deferred due to road works
3	Carry out compliance assessment visits on hydro power installations to ensure compliance with the Abstraction and Impoundment Regulations	DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme	DOE NIEA, DCAL	Dec 2014

UKGBNI1NB030305204	Six Mile Water	2009 Status: MEP
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	Action	Action to be taken by	Target Date
1	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body	DOE NIEA, Six Mile Water Trust	On-going
2	Promote environmental best practice through the Ballyclare stormwater pilot project	DOE NIEA, NIWL	Pilot Document Complete
3	Conduct biological investigations to assess aquatic invertebrates at sites on the Ballylinney Burn, Ballyclare town and Green Burn	DOE NIEA	Complete
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended including fencing and planting native vegetation	DOE NIEA	Mar 2014

5	Undertake river restoration project using fisheries habitat enhancement measures subject to investigation of suitable sites in the Green Burn	DCAL	Mar 2014
6	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme	DOE NIEA, DCAL	Dec 2014

UKGBNI1NB030305121	Ilsekelly Burn	2009 Status: Moderate	
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	Action	Action to be taken by	Target Date
1	Carry out a visual inspection of WWTW at Ballynashee Road	DOE NIEA	Complete
2	Carry out compliance assessment of industrial consented discharges	DOE NIEA	On-going

UKGBNI1NB030305001	Doagh River	2009 Status: Poor	
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	Action	Action to be taken by	Target Date
1	Carry out compliance assessment of industrial consented discharges	DOE NIEA	Mar 2014
2	Conduct biological investigations to assess aquatic invertebrates at Ballymena Road bridge in Doagh	DOE NIEA	Complete
3	Carry out a river walk from Springvale to confluence with Six Mile Water	DOE NIEA	Complete
4	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body	DOE NIEA, Six Mile Water Trust	On-going

UKGBNI1NB030305205	Lisnalinchey Burn	2009 Status: Moderate	
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	Action	Action to be taken by	Target Date
1	Carry out compliance assessment of industrial consented discharges	DOE NIEA	Mar 2014
2	Conduct biological investigations to assess aquatic invertebrates at Ballywalter Bridge, Ballypalady Road and the Longshot	DOE NIEA	Complete

3	Carry out pollution prevention and enforcement measures at identified point sources	DOE NIEA	On-going
4	Carry out a river walk from Ballyrobert Road to Ballypalady Bridge to investigate impact on aquatic invertebrates	DOE NIEA	Complete
5	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme	DOE NIEA, DCAL	Dec 2014

UKGBNI1NB030305206	Ballymartin Water	2009 Status: Moderate	
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	Action	Action to be taken by	Target Date
1	Carry out compliance assessment at Roughfort WWTW	DOE NIEA	Dec 2013
2	Carry out compliance assessment of industrial consented discharges	DOE NIEA	Mar 2014
3	Carry out compliance assessment of IPRI sites	DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures in respect of premises within the Industrial Estate	DOE NIEA	Dec 2015
5	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body	DOE NIEA, Six Mile Water Trust	On-going
6	Conduct biological investigations to assess aquatic invertebrates at Ballymartin Water Bridge, A57 Rd Bridge, Caranee, Mill Bank Road, Roughfort Bridge, Mallusk, downstream of Blackwater confluence and Park Road bridge	DOE NIEA	Complete
7	Carry out pollution prevention and enforcement measures by highlighting potential misconnection problems to be investigated	DOE NIEA, NIWL	Dec 2015

UKGBNI1NB030305128	Four Mile Burn	2009 Status: Good	
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	Action	Action to be taken by	Target Date
1	Assess sources of organic pollution including septic tanks at Hollybank Road	DOE NIEA	Mar 2014
2	Carry out compliance assessment of consented industrial discharges	DOE NIEA	Mar 2014

3	Carry out a river walk from Burn Road to Hollybank Road	DOE NIEA	Unable to access river
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UKGBNI1NB030305122	Six mile Water	2009 Status: PEP	
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	Action	Action to be taken by	Target Date
1	Promote riparian zone management by encouraging use of buffer strips and fencing	DOE NIEA	Mar 2014
2	Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits	DOE NIEA	Dec 2015
3	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body	DOE NIEA, Six Mile Water Trust	On-going
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended by the NIEA hydromorphology survey including buffer strips, fencing and invasive species management	DOE NIEA, DARD Rivers Agency	Dec 2015

UKGBNI1NB030305207	Clady Water	2009 Status: Moderate	
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	Action	Action to be taken by	Target Date
1	Carry out a river walk from monitoring point at Clady House to Clady bridge	DOE NIEA	Dec 2013
2	Carry out a visual inspection of WWTW (septic tank) at Ballyutoag	DOE NIEA	Complete
3	Carry out compliance assessment visits on hydro power installations to ensure compliance with the Abstraction and Impoundment Regulations	DOE NIEA	Dec 2015

UKGBNI1NB030305124	Rathmore Burn	2009 Status: Moderate	
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	Action	Action to be taken by	Target Date
1	Carry out compliance assessment of consented industrial discharges	DOE NIEA	Mar 2014

2	Carry out a river walk from Greystone Road to Rathmore bridge	DOE NIEA	Dec 2013
3	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body	DOE NIEA, Six Mile Water Trust	Dec 2015

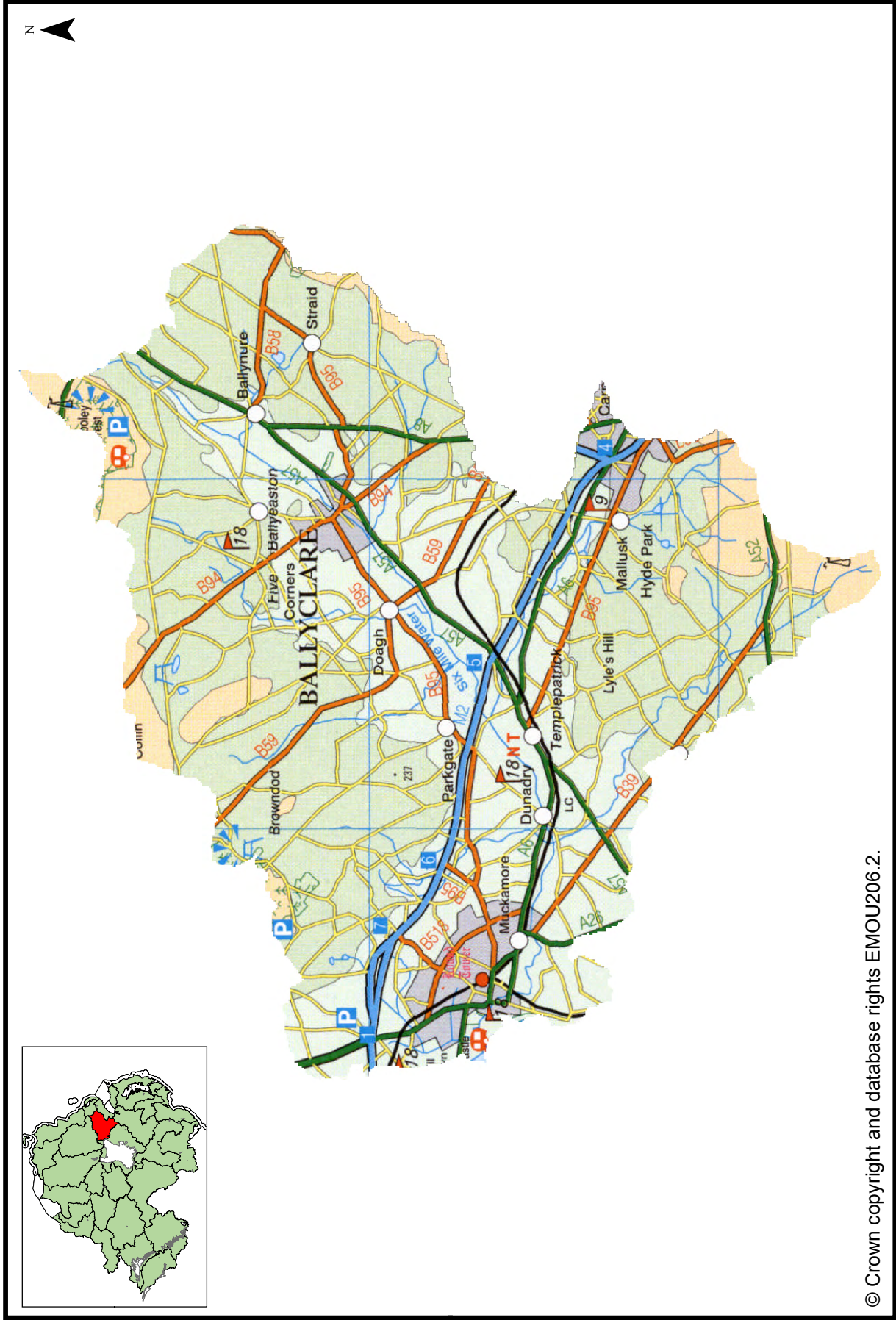
UKGBN11NB030305162	Plaskets Burn	2009 Status: PEP	
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	Action	Action to be taken by	Target Date
1	Carry out compliance assessment of consented industrial discharges	DOE NIEA	Mar 2014
2	Carry out compliance assessment of Antrim WWTW	DOE NIEA	Mar 2014
3	Investigate identified water quality impacts including the possibility of establishing a wetland area in conjunction with the local Council	DOE NIEA, Antrim Borough Council, Six Mile Water Trust	Dec 2015
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended including removal of culverts	DOE NIEA, DARD Rivers Agency	Mar 2014

SIX MILE WATER
Local Management Area



Map 1: Six Mile Water 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 will be implemented through Local Management Areas (LMAs) during the 2009 to 2015 planning cycle. The Six Mile Water 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.

Six Mile Water Local Management Area

The Six Mile Water LMA (Map 1), part of the Neagh Bann River Basin District, drains into Lough Neagh at Antrim Boat Club just south of Shane's Castle. The land area covered by the LMA is approximately 302 km².

The main river is the Six Mile Water whose upper reaches rise in the western part of the LMA near the Antrim Hills and Ballynure. The river flows westward towards Lough Neagh at Antrim, where it is joined by a number of significant tributaries such as Ballymartin Water, Clady Water, Doagh River and Rathmore Burn and supports a wide diversity of natural habitats, several of which are protected.

The main towns are Ballyclare and Antrim, but there are also several other significant towns throughout the area, such as Templepatrick, Ballynure, Parkgate, Mallusk and Doagh. The main land use is improved grassland with some forestry in the upper reaches, such as Ballyboley forest. A large industrial estate is present in the catchment at Mallusk. This is situated on the Ballymartin water which flows into the Six Mile Water.

The Antrim Hills in the north of the LMA are at the southern most tip of the Antrim Plateau and this region is designated as part of the Antrim Coast and Glens Area of Outstanding Natural Beauty. The Six Mile Water is an important salmon and trout angling river and also has native Dollaghan trout that are a feature of Lough Neagh. The area also supports a number of outdoor activities such as walking, boating and water sports.

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 a table at the end of this report.

What is the status of surface waters in Six Mile Water LMA?

83% of surface water bodies in Six Mile Water LMA (Map 2) have been classified as less than good status. There are a number of pressures that may prevent some waters reaching good quality. The main ones are considered to be:

- Abstraction and flow regulation
- Diffuse and point source pollution
- Changes to morphology (physical habitat)
- Invasive alien species

Groundwaters (underground water) interact with the surface waters around them, thus the quality and quantity of an area's groundwater can affect the surface waters.

There is one groundwater body in Six Mile Water LMA which is currently achieving good status.

A number of the biological and chemical water quality elements used in classification can be affected by both diffuse and point source pollution.

In this LMA the main impact was seen in invertebrate and diatom suppression. The rivers affected were: Doagh, Ilsekelly, Six Mile, Rathmore, Plaskets, Ballynure, Lisnalinchey, Ballymartin and Clady Water.

6 water bodies were identified as being affected by changes to morphology (physical habitat). The main rivers affected were: Doagh, Rathmore, Ballynure, Lisnalinchey, Ballymartin and Clady Water.

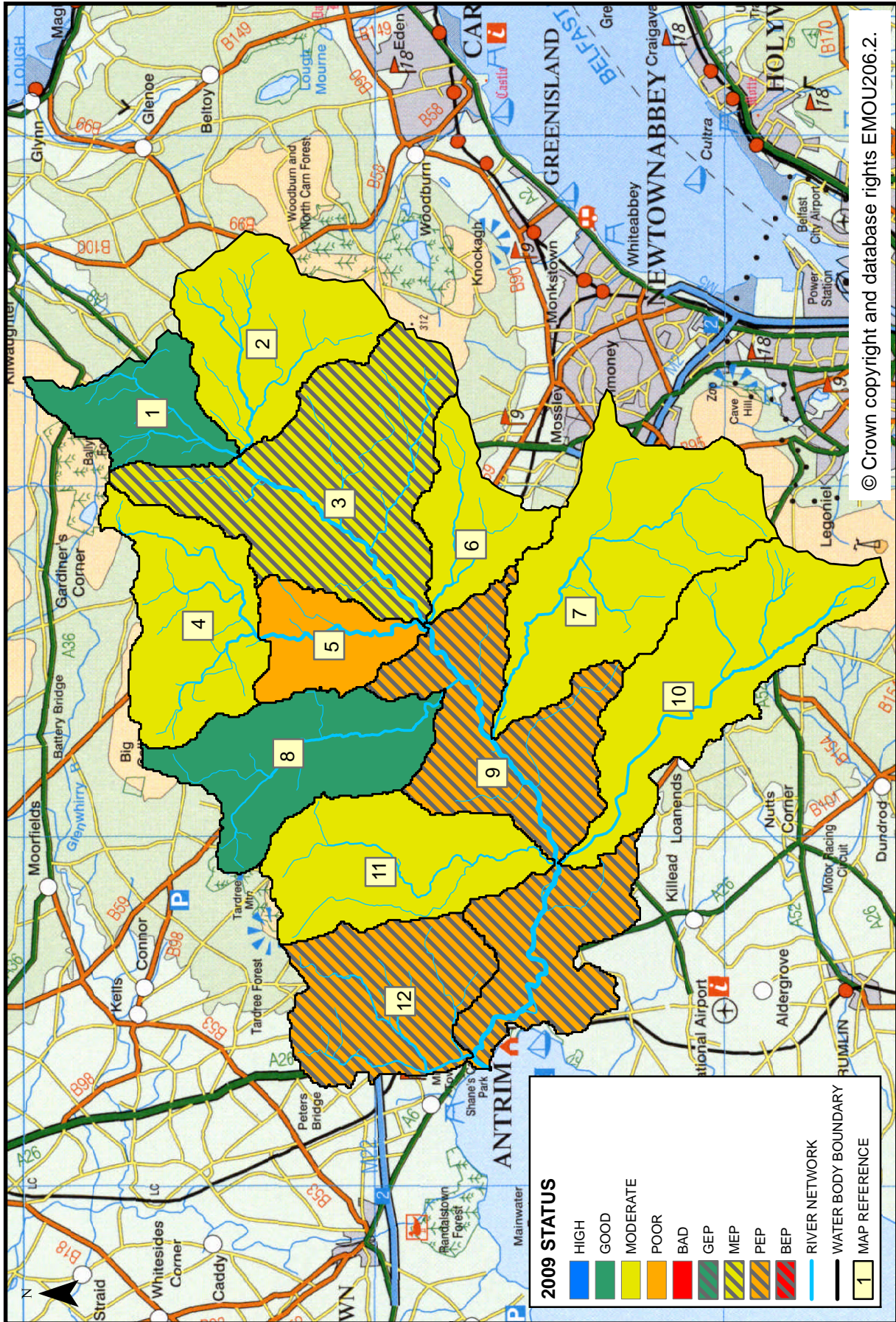
Two sections of the Six Mile Water and the Plaskets Burn have been classified as heavily modified. Six Mile Water (Antrim) has bed and bank reinforcement and straightening. Six Mile Water (Ballyclare) has bank reinforcement and culverts. Plaskets Burn has been extensively straightened with weirs and culverts present.

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*)
- Giant Hogweed (*Heracleum mantegazzianum*)
- Japanese Knotweed (*Fallopia japonica*)
- Floating Pennywort (*Hydrocotyle ranunculoides*)

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Map 2: 2009 status of surface water bodies in Six Mile Water LMA



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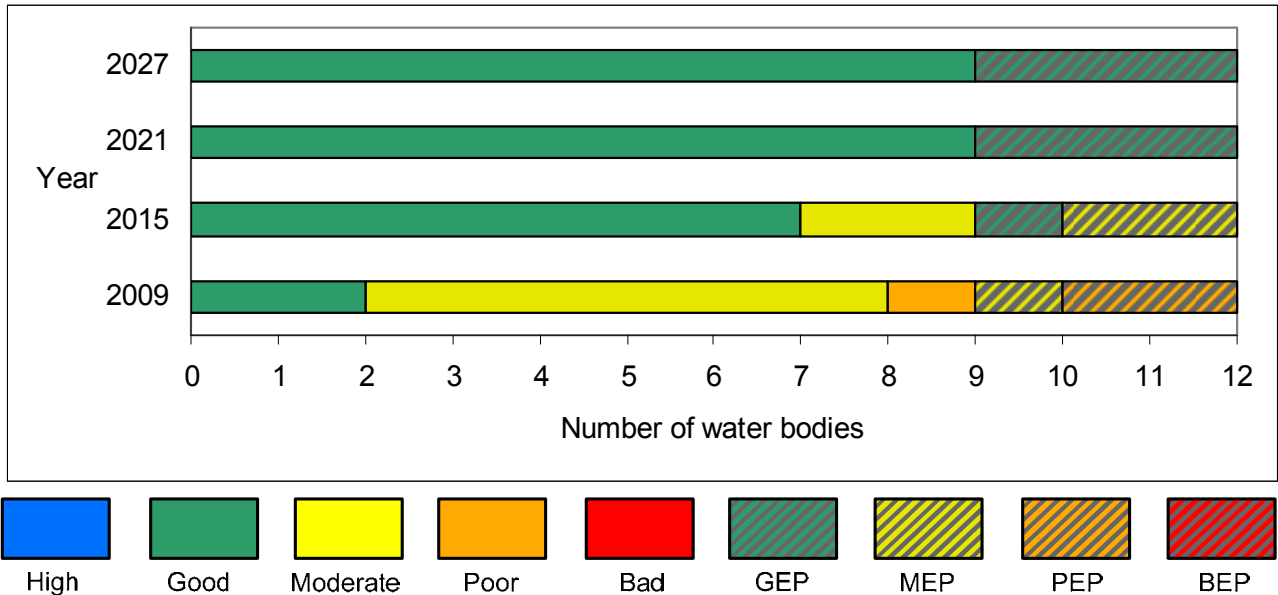
Table 1: 2009 status and proposed objectives

Map Reference	Water Body Code	Water Body Name	2009 Status	2015 Objective	Page Number
1	UKGBNI1NB030305202	Six Mile Water	Good	Good	10
2	UKGBNI1NB030305203	Ballynure Water	Moderate	Good	10
3	UKGBNI1NB030305204	Six Mile Water	MEP	GEP	11
4	UKGBNI1NB030305121	Ilsekelly Burn	Moderate	Good	11
5	UKGBNI1NB030305001	Doagh River	Poor	Moderate	1G
6	UKGBNI1NB030305205	Lisnalinchey Burn	Moderate	Moderate	12
7	UKGBNI1NB030305206	Ballymartin Water	Moderate	Good	1H
8	UKGBNI1NB030305128	Four Mile Burn	Good	Good	13
9	UKGBNI1NB030305122	Six Mile Water	PEP	MEP	1I
10	UKGBNI1NB030305207	Clady Water	Moderate	Good	1I
11	UKGBNI1NB030305124	Rathmore Burn	Moderate	Good	14
12	UKGBNI1NB030305162	Plaskets Burn	PEP	MEP	1Í

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 67% of our surface waters and maintain good status in 100% of our groundwaters.

Figure 1: 2009 status and proposed objectives for surface waters in Six Mile Water LMA



How are we going to maintain and improve the water environment in the Six Mile Water LMA?

There are a number of actions which will be implemented in the Six Mile Water LMA in order to maintain and improve the water environment. The list of actions that follows include actions that apply throughout the LMA and also actions that apply to individual water bodies.

The actions below apply throughout the LMA.

	Action to be taken	Action to be taken by	Target Date
1	Conduct a water resource assessment to inform an ongoing review of abstraction licences within Northern Ireland.	DOE NIEA	Completed
2	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
3	Review of groundwater abstraction and planning applications where necessary.	DOE NIEA	Dec 2015
4	Review the relevance of nutrient budget in the context of this LMA to establish relative nutrient inputs from agriculture, industry and sewage discharges.	DOE NIEA	Mar 2014
5	Observation of nitrate trends in groundwater and liaison with research partners for further investigation.	DOE NIEA	Dec 2015
6	Raise awareness and promote the benefits of effective pollution control and farm nutrient and waste management within the LMA.	DARD Countryside Management Branch	Mar 2014
7	Develop leaflets and articles to promote effective farm nutrient and waste management within the LMA.	DARD Countryside Management Branch	Mar 2014
8	Encourage riparian zone management with an aim to improve biodiversity and minimise sedimentation through practical management measures on farms within the LMA.	DARD Countryside Management Branch	Mar 2014
9	Promote best practice in the use of pesticides on farms within the LMA.	DARD Countryside Management Branch	Mar 2014
10	Promote the control of invasive alien species on farmland within the LMA.	DARD Countryside Management Branch	Mar 2014
11	Conduct invasive alien species recording during river walks and raise awareness on how to prevent the spread of invasive alien species within the LMA.	DOE NIEA	Mar 2014
12	Promote the NIEA Water Pollution Hotline through increased advertising, promotion and waterside signage in appropriate areas within the LMA.	DOE NIEA	Mar 2014
13	Promote public participation by hosting bi-annual Catchment Stakeholder group meetings, holding bilateral meetings with interested groups and individuals and the generation of e-zines.	DOE NIEA	Mar 2014
14	Promote public participation by working with the N I Rivers Trust Development Officer to support the development of the Six Mile Water Rivers Trust.	DOE NIEA	Completed

	Action to be taken	Action to be taken by	Target Date
15	Review Rivers Agency's annual watercourse maintenance program within the LMA.	DOE NIEA, DARD Rivers Agency	Mar 2014
16	Highlight external funding opportunities for water management projects to local partners including the Water Quality Improvement Grant.	DOE NIEA	Mar 2014
17	Support local environmental initiatives such as river clean up campaigns and alien species removal.	DOE NIEA	Mar 2014
18	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
19	Support local environmental initiatives such as Riverfly Monitoring Initiative.	DOE NIEA, Six Mile Water Trust	Mar 2014
20	Promote environmental best practice by supporting the implementation of a new stormwater management strategy for Northern Ireland through a cross Departmental Working Group.	DOE NIEA, DRD Roads Service, DARD Rivers Agency, NIWL	Dec 2015
21	Complete desktop study and risk analysis using available catchment data to identify areas under pressure and allow further investigations on the ground to be carried out within the LMA.	DOE NIEA	Dec 2014
22	Create an inventory of physical structures within the river channel and bank structures from the mouth of the river up to confluence with the Clady River.	DOE NIEA	Completed
23	Support local environmental initiatives through the Water Quality Improvement Grant scheme by training local stakeholders to identify and record the presence of Invasive Alien Species within the catchment.	ABC, NBC	Mar 2014
24	Assess road schemes such as the upgrading of the A8 for appropriate mitigation measures and enforcement.	DOE NIEA, DRD Roads Service, Consultants	Dec 2015
25	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended throughout the LMA.	DARD Rivers Agency	Mar 2014
26	Offer a farm nutrient and waste management advisory visit to farmers following a pollution incident (on referral by NIEA) throughout the LMA.	DARD Countryside Management Branch	Mar 2014
27	Carry out agricultural advisory site visits where identified as an issue through river walks and spot checks or as identified by stakeholders.	DOE NIEA, DARD Countryside Management Branch	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.

UKGBNI1NB030305202	Six Mile Water	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	Dec 2015

[A number of catchment wide actions also apply to this water body. These can be found on Page 8.](#)

UKGBNI1NB030305203	Ballynure Water	2009 Status: Moderate	
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	Action to be taken	Action to be taken by	Target Date
1	Conduct biological investigations to assess aquatic invertebrates on Castle Water at Hillis Bridge, Church Road and Larne Road.	DOE NIEA	Completed
2	Carry out a river walk on Castle Water at Ballynure village.	DOE NIEA	Dec 2013
3	Carry out compliance assessment visits on hydro power installations to ensure compliance with the Abstraction and Impoundment Regulations.	DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme.	DOE NIEA, DCAL	Dec 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 8.](#)

UKGBNI1NB030305204		Six Mile Water	2009 Status: MEP	
	Action to be taken		Action to be taken by	Target Date
1	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body.		DOE NIEA, Six Mile Water Trust	Dec 2015
2	Promote environmental best practice through the Ballyclare stormwater pilot project.		DOE NIEA, NIWL	Mar 2013
3	Conduct biological investigations to assess aquatic invertebrates at sites on the Ballylinney Burn, Ballyclare town and Green Burn.		DOE NIEA	Completed
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended including fencing and planting native vegetation.		DOE NIEA	Mar 2014
5	Undertake river restoration project using fisheries habitat enhancement measures subject to investigation of suitable sites in the Green Burn.		DCAL	Mar 2014
6	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme.		DOE NIEA, DCAL	Dec 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305121		Ilsekelly Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out a visual inspection of WWTW at Ballynashee Road.		DOE NIEA	Completed
2	Carry out compliance assessment of industrial consented discharges.		DOE NIEA	Mar 2014
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305001		Doagh River	2009 Status: Poor	
	Action to be taken		Action to be taken by	Target Date
1	Carry out compliance assessment of industrial consented discharges.		DOE NIEA	Mar 2014
2	Conduct biological investigations to assess aquatic invertebrates at Ballymena Road bridge in Doagh.		DOE NIEA	Completed
3	Carry out a river walk from Springvale to confluence with Six Mile Water.		DOE NIEA	Dec 2014
4	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body.		DOE NIEA, Six Mile Water Trust	Dec 2015

[A number of catchment wide actions also apply to this water body. These can be found on Page 8.](#)

UKGBNI1NB030305205		Lisnalinchey Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out compliance assessment of industrial consented discharges.		DOE NIEA	Mar 2014
2	Conduct biological investigations to assess aquatic invertebrates at Ballywalter Bridge, Ballypalady Road and the Longshot.		DOE NIEA	Completed
3	Carry out pollution prevention and enforcement measures at identified point sources.		DOE NIEA	Dec 2013
4	Carry out a river walk from Ballyrobert Road to Ballypalady Bridge to investigate impact on aquatic invertebrates.		DOE NIEA	Mar 2014
5	Carry out pollution prevention and enforcement measures in respect of the A8 road scheme.		DOE NIEA, DCAL	Dec 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 8.](#)

UKGBNI1NB030305206		Ballymartin Water	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out compliance assessment at Roughfort WWTW.		DOE NIEA	Dec 2013
2	Carry out compliance assessment of industrial consented discharges.		DOE NIEA	Mar 2014
3	Carry out compliance assessment of IPRI sites.		DOE NIEA	Mar 2014
4	Carry out pollution prevention and enforcement measures in respect of premises within the Industrial Estate.		DOE NIEA	Dec 2015
5	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body.		DOE NIEA, Six Mile Water Trust	Dec 2015
6	Conduct biological investigations to assess aquatic invertebrates at Ballymartin Water Bridge, A57 Rd Bridge, Caranee, Mill Bank Road, Roughfort Bridge, Mallusk, downstream of Blackwater confluence and Park Road bridge.		DOE NIEA	Completed
7	Carry out pollution prevention and enforcement measures by highlighting potential misconnection problems to be investigated.		DOE NIEA, NIWL	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305128		Four Mile Burn	2009 Status: Good	
	Action to be taken		Action to be taken by	Target Date
1	Assess sources of organic pollution including septic tanks at Hollybank Road.		DOE NIEA	Mar 2014
2	Carry out compliance assessment of consented industrial discharges.		DOE NIEA	Mar 2014
3	Carry out a river walk from Burn Road to Hollybank Road.		DOE NIEA	Dec 2013
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305122		Six mile Water	2009 Status: PEP	
	Action to be taken		Action to be taken by	Target Date
1	Promote riparian zone management by encouraging use of buffer strips and fencing.		DOE NIEA	Mar 2014
2	Ensure that licences for new and existing hydro power developments are compliant with the Water Framework Directive and Habitats Regulations to support good ecological status and carry out risk based compliance visits.		DOE NIEA	Dec 2015
3	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body.		DOE NIEA, Six Mile Water Trust	Dec 2015
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended by the NIEA hydromorphology survey including buffer strips, fencing and invasive species management.		DOE NIEA, DARD Rivers Agency	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305207		Clady Water	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out a river walk from monitoring point at Clady House to Clady bridge.		DOE NIEA	Dec 2013
2	Carry out a visual inspection of WWTW (septic tank) at Ballyutoag.		DOE NIEA	Completed
3	Carry out compliance assessment visits on hydro power installations to ensure compliance with the Abstraction and Impoundment Regulations.		DOE NIEA	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305124		Rathmore Burn	2009 Status: Moderate	
	Action to be taken		Action to be taken by	Target Date
1	Carry out compliance assessment of consented industrial discharges.		DOE NIEA	Mar 2014
2	Carry out a river walk from Greystone Road to Rathmore bridge.		DOE NIEA	Dec 2013
3	Promote public participation by supporting the Riverfly Monitoring Initiative within this water body.		DOE NIEA, Six Mile Water Trust	Dec 2015
A number of catchment wide actions also apply to this water body. These can be found on Page 8.				

UKGBNI1NB030305162		Plaskets Burn	2009 Status: PEP
	Action to be taken	Action to be taken by	Target Date
1	Carry out compliance assessment of consented industrial discharges.	DOE NIEA	Mar 2014
2	Carry out compliance assessment of Antrim WWTW.	DOE NIEA	Mar 2014
3	Investigate identified water quality impacts including the possibility of establishing a wetland area in conjunction with the local Council.	DOE NIEA, Antrim Borough Council, Six Mile Water Trust	Dec 2015
4	Investigate feasibility and practicality of implementing morphological mitigation measures as recommended including removal of culverts.	DOE NIEA, DARD Rivers Agency	Mar 2014

[A number of catchment wide actions also apply to this water body. These can be found on Page 8.](#)

What other measures are being implemented to maintain and improve the water environment in the Six Mile Water LMA?

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

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

- The Birds Directive (79/409/EEC);
- The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC);
- The Environmental Impact Assessment Directive (85/337/EEC);
- The Urban Waste-water Treatment Directive (91/271/EEC);
- The Plant Protection Products Directive (91/414/EEC);
- The Nitrates Directive (91/676/EEC);
- The Integrated Pollution Prevention Control Directive (96/61/EC).

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

- Cost recovery for water use and promotion of efficient and sustainable water use;
- Abstraction and Impoundment Control;
- Protection of drinking water sources;
- Point source and diffuse source discharge control;
- Controls on physical modifications to surface waters;
- Prevention or reduction of the impact of accidental pollution incidents;
- Authorisation of discharges to groundwater;
- Priority substances control;
- Controls on other activities impacting on water status;
- Further information on existing and planned measures for each sector is available on the programme of measures section of the website.

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

- Promote efficient use of water;
- Introduce seasonal discharge consents, where possible, to promote installation of reed beds and constructed wetlands for sewage treatment;
- Improve septic tank maintenance, installation and design;
- Review and investigate the effectiveness of wetlands in the reduction of nutrient loadings;
- Invasive Alien Species; and
- Facilitate River Trusts across Northern Ireland.

Progress on the implementation of these supplementary measures listed in the RBMPs was reported to the European Commission in December 2012. This LMA action plan forms one of the supplementary measures for the Neagh Bann RBD and includes a number of others where relevant.

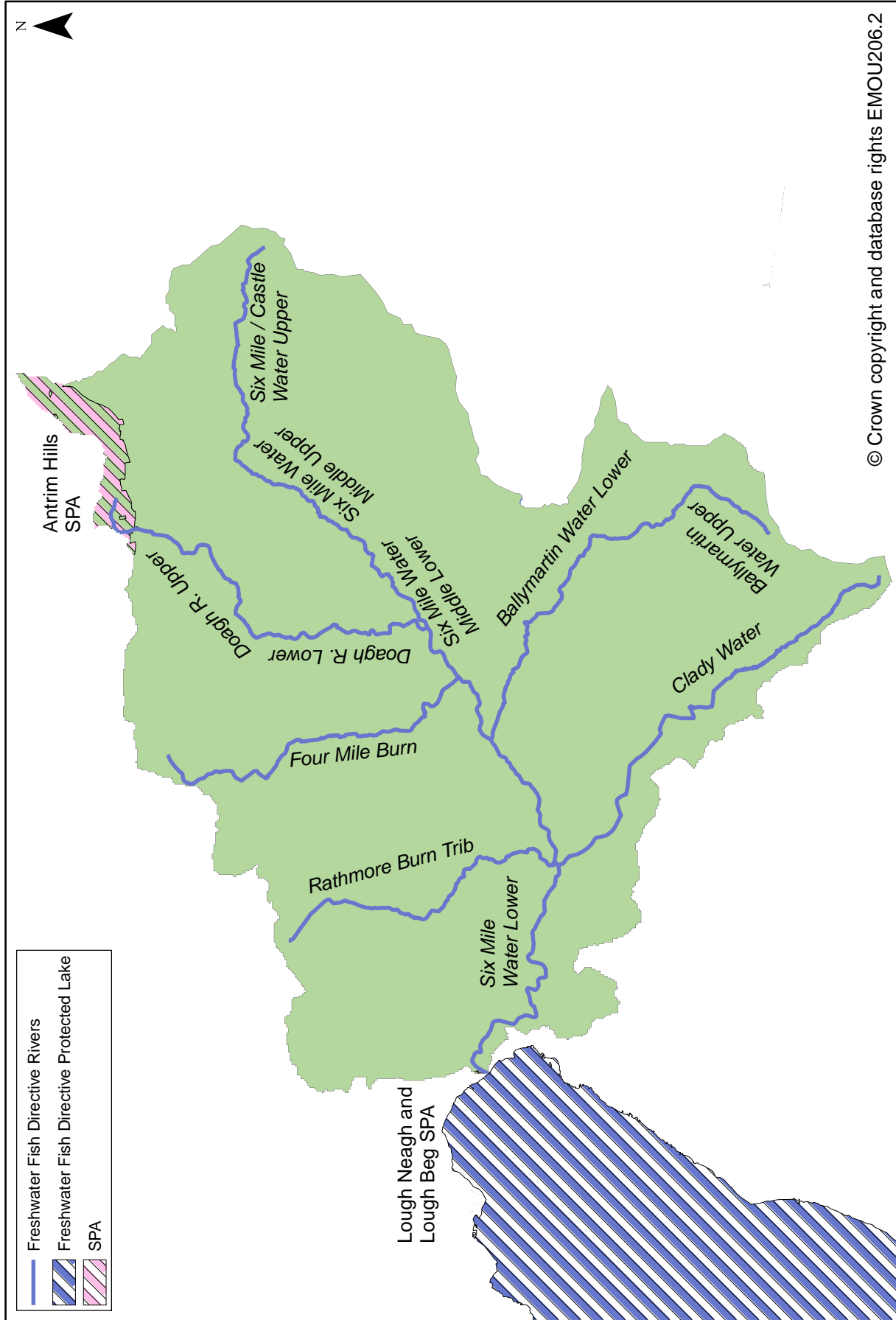
What measures are agreed for water dependent Natura 2000 sites in unfavourable condition?

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

There are no water dependent Special Areas of Conservation in Six Mile Water LMA. Lough Neagh and Lough Beg Special Protection Area in this LMA is in unfavourable condition. Special Protection Areas in unfavourable condition require investigation to identify external and internal factors. The issues are unclear; may be changes in migratory patterns, disturbance to high tide roost sites, water quality and/or ecological factors. The condition of the Antrim Hills Special Protection Area has not yet been assessed. Further details on Special Areas of Conservation and Special Protection Areas in the Six Mile Water LMA are available in the protected areas section of the website.

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Map 3: Protected Areas in Six Mile Water LMA



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Protected areas in Six Mile Water LMA

The LMA supports important habitats and wildlife. These areas have been designated under European Directives and require special protection. The protected areas are summarised in the following table.

Table 2: Protected areas in Six Mile Water 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 is 1 groundwater protected area 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 95 km of rivers 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; Six Mile Water.</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 no water dependent Special Areas of Conservation.</p> <p>There are 2 Special Protection Areas; Lough Neagh and Lough Beg and Antrim Hills.</p>

What activities have been carried out in the Six Mile Water LMA to date?

The improvements in water quality proposed above will be delivered through a programme of measures, coordinated by the Department of the Environment, some of which are already being carried out in Six Mile Water LMA.

Local measures are also being applied in this LMA. There are a number of projects and initiatives run, for example, by local communities, angling groups and voluntary environmental organisations that will contribute to achieving the objectives we have set for our waters.

There has been significant catchment investigation by NIEA Regional Operations into reported point and diffuse pollution sources highlighted by various groups including the Ulster Angling Federation. Actions resulting from the investigations have in some cases lead directly to prosecutions, agricultural breaches penalties, and cessation of direct discharges.

Following the pollution incident in the Ballymartin River in June 2008 the chemical profiles of the samples lifted at the time were scanned for any substance that was likely to cause a fish kill, with the intention of then visiting premises likely to store such a chemical. While a wide range of substances were identified nothing stood out as likely to have caused the fish kill.

A comprehensive programme of pollution prevention inspections has been carried out on business premises throughout the Mallusk Industrial Estate. An inventory of potentially polluting materials stored on-site has been made, ensuring that all materials were being stored and handled safely. In addition, site drainage has been examined to ensure that even if an accidental spill did occur, a rapid response plan can be employed to protect the nearby streams or rivers.

This pollution prevention programme did identify a number of pollution risks on different sites. NIEA staff has worked with site operators to remove any identified pollution risks, including the serving of Enforcement Notices where necessary.

Subsequent to the initial investigations, a series of other scientific surveys were carried out as follows:

1. A CCTV survey of a culverted section, the 'Blackwater Drain', is completed and established that no significant issues regarding inputs, connections and conditions within the culvert were present which could impact on the Blackwater.
2. A hydro morphological survey of the Blackwater and Ballymartin tributaries has been completed and with input from Natural Heritage, Rivers Agency, DARD, and DCAL will assist in advising the agency of the potential for restoration and the likely practical and safe measures to achieve improvement.
3. A sediment toxicology survey has been completed in the Blackwater. Results indicate that the sediments would not hinder recovery in a restoration scheme. However anoxic silts are present and may need to be removed.
4. A large invertebrate survey of the wider Six Mile Water catchment has been completed. This has been one of the largest ever carried out by the agency for the size of catchment, involving over 100 sites. The results will advise on future work priorities and identify specific problems and areas at risk.

5. Passive samplers have been placed in the Mallusk and wider Six Mile Water catchment. These are monitoring for chemicals present within the water column. This information can be linked to the drainage mapping and chemical inventory to help in pollution response and interpretation of results from other monitoring.
6. Biological monitoring to assess the impact of the Blackwater on the Ballymartin River has been completed.

A lot of work has been and continues to be done on the Six Mile Water to improve the water quality. One of the ways in which this is being progressed through the local community is through the development of the Six Mile Water Trust. This is a group of local anglers, community groups, environmental organizations, and councillors etc who all have the shared goal of helping improve the river environment.

The Six Mile Water Trust has been established to afford better protection, welfare, enhancement and restoration of the natural environment, including fish and wildlife, of the Six Mile Water and its catchment area. The Trust has been supported financially by NIEA through a start up grant and NIEA has provided support through regular contact with the Catchment Officer who attends the Trust meetings. This provides a channel of communication between the Trust and NIEA.

Abbreviations

Term	Explanation
ABC	Antrim Borough Council
DARD	Department of Agriculture and Rural Development
DCAL	Department of Culture, Arts and Leisure
DOE	Department of the Environment
EP	Ecological Potential – the status of a heavily modified water body measured against the maximum ecological quality it could achieve given the constraints imposed upon it by those heavily modified characteristics necessary for its use. There are 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).
LMA	Local Management Area
NBC	Newtownabbey Borough Council
NIEA	Northern Ireland Environment Agency
NIWL	Northern Ireland Water Limited
WWTW	Waste Water Treatment Works

Working together to implement the Local Management Area Action Plan.

If you are running a project or carrying out work that will assist in protecting the water environment or water dependant features, or restoring natural waters then we would encourage you to let us know at the Lower Neagh Bann Catchment Stakeholder Group meetings or by contacting the Catchment Management Officer, Gerry Wilson.

Email: gerry.wilson@doeni.gov.uk

Tel: 028 9262 3219

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

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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17 Antrim Road
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An Agency within the Department of the
Environment
www.doeni.gov.uk



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