

Northern Ireland  
Environment Agency

River Basin Management Plans (2015 - 2021)

# Programme of Measures

**Key Sectors:** Chemicals

**Pressure Type:** Diffuse and Point Source Pollution

*Pressure Type – Diffuse and point source pollution*

## Chemicals

A vast range of chemicals are used every day, both at home and at work. These chemicals can enter the environment by many diverse routes, ranging from emissions from industry and sewage treatment works to run-off from roads or farms. Many of these chemicals come from using products in homes, hotels, restaurants and offices and get into the water environment via sewage treatment works. Other sources of chemicals include industry and agriculture.

For some substances, as well as current emissions from industry and sewage treatment works, there are significant legacy issues. Some substances are already widespread in the environment as a result of past use which has contaminated land and sediment. Some of these substances accumulate in the food chain and may adhere strongly to sediment. In addition, historic industrial activity such as mining has led to significant emissions of metals from underground in the water environment.

### **Why is this a significant issue?**

Some chemicals can threaten the long-term sustainability of drinking water sources and lead to increased costs of treatment, others may prove a long term threat to aquatic ecosystems.

There are major challenges to achieving objectives for some designated chemicals under the Water Framework Directive. For example, brominated flame retardants were banned in 2006 but are still present in many home furnishings like sofas and still end up in the water environment. Some common persistent toxic substances can accumulate in the environment, and this may mean some waters are at risk of not meeting Environmental Quality Standards which are set to protect the environment.

### **What are we already doing about this?**

We are assessing the risks to the water environment through an inventory of pollution emissions. **The pollution inventory is available on the website.** It assesses the relevance of substances for each River Basin District. For each relevant substance point source loads, estimated diffuse loads and future data requirements are reported. This will be used to identify the main sources and hotspots of emissions and to determine the effectiveness of the measures implemented to achieve reduction and phasing out of emissions as required.

Raising awareness on how to deal with chemicals is provided through a number of ways including advice to small and medium sized businesses regarding obligations for designated chemicals, promotion of best practice in environmental management and collaboration with other agencies on campaigns such as the safe use and disposal of pesticide containers. Implementation of the Sustainable Use of Pesticides Directive encourages integrated pest management to reduce risks to drinking water supplies and the environment. Within the agricultural sector, good practice is promoted in relation to the use of pesticide and fertiliser storage, handling and use. NIEA is working in partnership with Ulster Farmers Union, DARD

and Northern Ireland Water (Water Catchment Partnership) and through the Voluntary Initiative to support action and advice to reduce pesticide emissions to surface and ground water.

A programme of passive monitoring for priority substances and specific pollutants in rivers is being carried out to identify pollutants that may be having a negative impact on river ecology.

In relation to shellfish monitoring, a marine water quality monitoring programme is currently carried out on a quarterly basis looking at metals and organic pollutants identified under Annexes VIII and X of the Water Framework Directive. These are linked to the specific pollutant monitoring programme within Water Framework Directive catchment areas.

Shellfish Waters Protected Areas are now managed under the list of Water Framework Directive protected areas. In shellfish waters, the Department shall endeavour to respect the microbial guideline value in the shellfish flesh and intervalvular liquid as set out in the Water Framework Directive(Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) 2015 Regulations.

### **What further actions will deliver environmental improvements?**

RBMP 2 (2015-2021)

The measures which we will take forward in the second cycle are summarised in Table 1.

These are measures which will improve our understanding of the pressures, enable us to improve the evidence base to target actions, and build on actions already complete.

In the current economic climate there is no certainty at this stage around future funding and budgets that will be available throughout the lifetime of this plan. However DOE will in collaboration with other departments and agencies continue to make a strong case for additional funding through the standard government bidding processes.

**Key Sector: Chemicals**

**Pressure Type:** Diffuse and point source pollution

**Table 1 Summary of supplementary measures for 2015 to 2021.**

Improvement Required	Actions	Delivery mechanism	Lead Department / Agency	Support Provider	Deadline for delivery of action (year end)
Reduction in priority hazardous/ priority substances	Coordinate activities to reduce Dangerous Substances through an Expert Group	Partnership working across government	NIEA	DOE/ NIW/ DARD/ AFBI	2016
	Pilot project looking at the regulation of priority and new substances of concern with more stringent standards for waste water treatment effluents	Licence reviews under the Water (Northern Ireland) Order 1999	NIEA		2016
	Investigate how existing and new technology and methods can apply to monitoring emerging chemicals of concern in the aquatic environment	Collaboration with other agencies	NIEA/ MED		2017
	Investigate how passive sampling and associated analytical technology and methods can apply to monitoring emerging chemicals of concern in the marine environment	Delivery of surveillance, operational & investigative monitoring programmes by NIEA	MED		2020

## River Basin Management Plans

Improvement Required	Actions	Delivery mechanism	Lead Department / Agency	Support Provider	Deadline for delivery of action (year end)
<b>Reduction in priority hazardous/ priority substances</b>	Pilot study of freshwater biota monitoring and use of passive sampling techniques during second cycle plans	Biota monitoring managed through the NI Fish Monitoring Group and the Water Chemistry Group. Loughs Agency and AFBI collecting the fish samples	NIEA	LA/ DCAL/ AFBI	2017
	To develop the analytical methodology required to facilitate the analysis of new substances added to annex X WFD	Delivery of surveillance, operational & investigative monitoring programmes by NIEA	NIEA	DOE/ EPA/EA NRW/ SEPA	2020
	Examine the feasibility of metals monitoring by passive techniques to allow the determination of time averaged concentrations of metals in rivers at locations of concern	Pilot test of agreed methodology	NIEA		2017
	Potential introduction of pharmaceutical (Watch List) monitoring of waste water treatment works effluents e.g. Contraceptive pill	Agreed UK Programme coordinated through UKCTT	NIEA	DEFRA/ UKCTT	2020
	To develop methodology required to facilitate time averaged analysis and other analysis as it becomes available through UKTAG and as agreed by UKTAG working groups	Pilot test of agreed methodology	DOE EMD	NIEA	2017
	Encourage the adoption of Pesticide Minimisation Strategies, such as that adopted by Forest Service, across other sectors	Interdepartmental Forum/IWG	NIEA	DARD FS	2017

## River Basin Management Plans

Improvement Required	Actions	Delivery mechanism	Lead Department / Agency	Support Provider	Deadline for delivery of action (year end)
Reduction in priority hazardous/ priority substances	Implementation of EU REACH regulations	Awareness and enforcement campaigns	NIEA/ Health and Safety Executive Northern Ireland HSENI		2021
Reduction in priority hazardous/ priority substances	Implementation of the Sustainable Use of Pesticides	The Plant Protection Products (Sustainable Use) Regulations 2012	DARD		In Place
	Further development of Drinking Water Protected Areas and establishment of safeguard zones to improve and maintain water quality within drinking water catchments	Partnership working with NIW and Drinking Water Inspectorate(DWI)	NIEA	NIW/ DWI	2021
	Submit a project proposal through INTERREG V SCaMP to improve raw water quality in 3 cross border drinking water catchments	Partnership Working through INTERREG	NIW/Irish Water (IW)	NIEA/ DWI	2016 – subject to Interreg programme for funding application process
Education and Awareness	Use the Water Catchment Partnership (WCP) approach to work proactively together to promote and raise awareness of best practice when using pesticides in the garden	WCP programme	WCP		2027

## River Basin Management Plans

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Improvement Required	Actions	Delivery mechanism	Lead Department / Agency	Support Provider	Deadline for delivery of action (year end)
<b>Education and Awareness</b>	Promote best practice when using insecticides, such as cypermethrin in livestock and forestry sectors	Engage with DARD, Farming community and forest service to reduce usage and promote best practice	NIEA/DARD		2017
	Promote no-pesticide usage by local authorities when managing green areas	Engage with local Government via the interdepartmental Priority Subs Group	NIEA	Local Government Agencies	2021



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