

RIVER BASIN MANAGEMENT

(A). COMPARISON OF 3 RIVER BASIN MANAGEMENT PLANS FOR NI

1. Background

Every six years a river basin management plan must be produced for each River Basin District (RBD) to comply with the requirements of the Water Framework Directive (WFD). There are 8 river basin districts in the island of Ireland. Of these one lies wholly within Northern Ireland (North Eastern), four lie wholly in Irelandⁱ and there are three International River Basin Districts: North Western, Neagh-Bann and Shannon. Each of the 3 documents constitutes the plans being developed for the period 2009 to 2015 for NI. Objectives have therefore been set for each of the 3 river basins in accordance with the river basin planning cycles for 2015.

There are a number of protected areas in each of the 3 river basins and, as the plans indicate, there is specific legislation that applies to them as well as associated objectives/standards that must be adhered to. Where the WFD objectives also apply then the more stringent objective/standard will be applied.

Furthermore, the Neagh-Bann, North-Western and Shannon are International River Basin Districts therefore there has been significant coordination between each jurisdiction since 2003 to ensure that the requirements of the WFD are met. Appendix 1 shows the coordination so farⁱⁱ.

2. Objectives for each basin

The WFD acknowledges that achieving good status for surface waters may not be achievable in the first cycle (2009-2015) for the following reasons:

- The scale of the improvements may take several cycles, for reasons of technical feasibility;
- Carrying out the improvements by 2015 may be disproportionately expensive;
- Natural conditions do not allow for timely improvements.

However where this is the case as long as the water body is not allowed to deteriorate then improvements can take place over several cycles. For these reasons where it is not expected that good status will not be achieved by 2015 for all water bodies the objectives for 2021 and 2027 are indicated.

ⁱ As per the River Basin Management Plans 'Ireland' in this paper refers to the Republic of Ireland.

ⁱⁱ This table is taken directly from *Working together: Managing our shared waters. The North Western International River Basin District*. It should be noted that the same table is include in the Neagh- Bann 'Working together' document.

2.1 Surface Waters

Surface waters are classified in one of 5 categories: High, good, moderate, poor, or bad and include rivers, lakes, coastal waters and transitional water bodies. The objectives are set on the principle that each water body should be improved by at least one class in each 6 year river basin planning cycle. Therefore where a water body is classified as moderate in 2008, it should be classified as good in 2015. However, where water bodies are classified as bad in 2008 the intention is to improve the status by two classes i.e. to moderate. Table 1 shows the current status of surface waters and the projected status, in percentage terms, in 2015 for the three river basins

Table 1 Surface Waters: current status and objectives for the 3 river basins

	% of Surface Waters that are currently good or higher	% of Surface Waters that achieve 'at least good' status by 2015	% Overall improvement
North Western	39 (59% less than good and 2% yet to be assessed)	85	46
North Eastern	18 (70% less than good and 12% yet to be assessed)	57	39
Neagh-Bann	23 (71% less than good and 6% yet to be assessed)	63	40

2.2 Groundwater

Groundwater is designated in chemical and quantitative terms as either good or poor status.

Table 2 showing the chemical and quantitative status of groundwater bodies in each river basin

	Chemical Status (Number of water bodies)		Quantitative Status (Number of water bodies)	
	Current Status	Proposed Status	Current Status	Proposed Status
North Western	45 good 0 poor	45 good 0 poor	45 good	45 good
North Eastern	7 good 1 poor	8 good by 2027	6 good 2 poor	7 good by 2021 8 good by 2027
Neagh-Bann	13 good 1 poor	14 good by 2021	13 good 1 poor	14 good by 2021

2.3 Heavily Modified Water Bodies

Heavily modified water bodies are classified as either having good ecological potential or moderate ecological potential. Ecological potential is a new classification approach for Northern Ireland and the classifications presented in table 3 will be reviewed prior to completion of the final plan at the end of 2009.

Table 3 Ecological potential for heavily modified water bodies in each river basin

	Current Ecological Potential of water bodies (good/moderate)		Proposed Ecological Potential of water bodies (good/moderate)	
N Western	Rivers 2 good 9 moderate	Lakes 1 good 3 moderate	Rivers 9 good (2015) 11 good (2021)	Lakes 4 good (2021)
N Eastern	Rivers 1 good 16 moderate	Lakes 0 good 2 moderate	Rivers 7 good (2015) 17 good (2021)	Lakes 1 good (2015) 2 good (2027)
Neagh-Bann	Rivers 4 good 20 moderate	Lakes 3 good 5 moderate	Rivers 14 good (2015) 24 good (2021)	Lakes 6 good (2015) 7 good (2021) 8 good (2027)

3. Proposed Achievements for 2015 and beyond

The above tables indicate the improvements to be achieved by 2015 and beyond for each river basin. While the improvements may differ from basin to basin the overall environmental objectives are the same for each:

- Provide at least good status for all water bodies;
- Prevent deterioration in status;
- Promote sustainable development; and
- Achieve specific standards for protected areas.

4. Main environmental issues for each river basin

The main issues for waters not achieving good status or better are the same in each of the RBMPs:

- Abstraction and flow regulation;
- Diffuse pollution from rural and urban land, including nutrient enrichment;
- Point source pollution from sewage and industry;
- Changes to morphology (physical habitat); and
- Invasive alien (non-native) species.

4.1 Measures to achieve environmental objectives

Measures comprised of two aspects:

- the action to be taken;
- the mechanism – policy, legal and financial tools.

There are two types of measures:

- **no-deterioration measures** to prevent deterioration in water body status;

and

- **improvement measures** the status of water body or the condition of protected areas.

Gaps in measures have been identified in relation to key pressures which are:

- Nutrient enrichment in rivers, lakes and estuaries
- Changes to the physical habitat of rivers and barriers to fish migration
- Invasive non-natives species

The **new potential measures** under consideration to reduce the impact of these key pressures are the same for each of the river basin plans:

- Introduction of phosphate free detergents to reduce overall phosphate loadings;
- Development of extended regulatory toolkit for addressing diffuse pollution;
- Prioritisation of work on catchments where diffuse pollution causes failure to meet WFD standards and protected area obligations by 2015, 2021 or 2027;
- Development of a policy framework policy to implement remedial works with the aim of moving modified water bodies to good status;
- Prevent the spread of invasive non-native species which could downgrade water bodies from good status under WFD

5. Implementation Plan

The wide-ranging nature of river basin planning requires the co-ordination of a range of activities by different groups – both governmental and non-governmental – in order to meet the requirements of national and European legislation. When the plans are finalised and agreed it will be necessary therefore to have implementation plans to deliver them. This means determining the actions to be taken on the ground and identifying what and how support can be provided to ensure the objectives stated in the plans are met. The management plans suggest that development of implementation plans is still in progress and that as part of the consultation process (on the management plans) stakeholders are able to identify current and future support mechanisms and measures that will contribute to meeting the objectives in the plans.

Therefore, currently there is no detail on implementation of any of the plans. It is acknowledged however that there are existing plans and programmes that contribute to the management of the water environment and that it is essential that these are coordinated and integrated in order to achieve water objectives. They are:

- Land use and spatial plans
- Agriculture
- Water supply and treatment
- Waste management
- Natural heritage and conservation plans
- Forestry
- Fisheries
- Coastal
- Flooding
- Climate change

In order to gather information on all the activities being carried out in relation to water management at a local level, online forms can be filled in by interested parties or individuals – *Projects Aiming to Increase Aquatic Resources*.

6. Current and proposed actions

The current and proposed actions are the same for each of the plans. They consist of a combination of ensuring adherence to existing regulations and introducing, and ensuring adherence to, new regulations. Illustrative examples are given below for Abstraction and Flow Regulation.

Members should refer to Section 5 of any of the plans for a complete list of and detail on the measures that will be used to achieve environmental objectives.

Examples

Pressure type: Abstraction and Flow Regulation

Key sectors: Water supply, Hydropower and Flood Control

Actions already being taken: Water Abstraction and Impoundment (Licensing) Regulations (NI) 2006.

This provides a risk-based approach to water abstraction and impoundment within NI.

Objective: to promote sustainable water use and to safeguard the quality of drinking water supplies

Action: introduction of Water Supply (Water Fittings) Regulations (Northern Ireland) 2009. These intend to ensure installation of fittings that will prevent contaminated water from entering the public supplies and to prevent waste.

Action: reduction in water supply leakage to the Economic Level of Leakage. This is the level at which any benefits from further reduction would be offset by the costs.

Action: Development of NI Monitoring Programme.

(B) 1. HOW ARE REQUIREMENTS IN WFD TO DEVELOP RBMP BEING TAKEN FORWARD IN ENGLAND/WALES, SCOTLAND AND ROI?

All draft RBMPs have been produced for the UK and RoI. The public consultations all run from 22nd December 2008 until 22nd June 2009.

1.1 Scotland¹

There are two river basin districts in Scotland – the Scotland River Basin District which covers most of Scotland, and the Solway-Tweed River Basin District shared between England and Scotland.

The Scotland River Basin District is subdivided into 8 areas with each area having an Area Advisory Group (AAG). The RBMP will be delivered by this network of groups. Each of these groups is overseen by the National Advisory Group (NAG).

The role of the NAG is to:

- oversee the river basin management planning process in Scotland;
- contribute to the preparation of the River Basin Management Plan;
- coordinate the work of AAGs.

The main role of the AAGs is to:

assist and contribute to river basin management planning in the district. They are responsible for producing Area Management Plans; the 'geographic chapters' of the river basin plan for the district.

They are comprised of representatives from:

- the main responsible authorities
- those providing water management measures (deliverers)
- organisations/activities causing pressures and impacts within the water environment

The groups advise on and support:

- the development of river basin planning in the area;
- the preparation, delivery and implementation of the Area Management Plan for the area;
- the identification of priorities for environmental improvement and protection;
- the measures required to deliver environmental improvement and protection within the area;
- the setting of environmental objectives for the area;
- SEPA, the Environment Agency and national advisory groups, as required.

Membership of the group is determined by the range and type of pressures within the specific area.

1.2 *Republic of Ireland*

The RoI intends to implement each of its RBMPs in a manner similar to the Scottish approach. An Advisory Council has been established for each river basin district to assist in river basin management and is comprised of councillors, community representatives and stakeholders. The Council will meet three or four times per year. All Advisory Council members from each of the districts meet at an annual National Advisory Council Conference to discuss and disseminate ideas and information.

Implementation will be coordinated nationally by a National Implementation Group and involving representatives from public authorities responsible for plan delivery. The implementation will fall mainly to the statutory authorities. For example, in the South Eastern District a unit will be set up by Carlow County Council to coordinate the work of the statutory authorities² and Galway County Council will set up a unit to coordinate similar activities in the Western district. The local authorities have the ultimate responsibility to adopt a river basin management plan as this is a reserved function of the authorities.

1.3 *England and Wales*

The Environment Agency is the competent authority for implementation of the RBMP e.g. characterisation of water bodies, monitoring, preparing proposals for environmental objectives etc. However, it has also established liaison panels in each River Basin District. Each panel is comprised of members from key sectors and will make decisions on the River Basin Management Plans.

Secretary of State Ministers have an 'appropriate' authority role i.e. general responsibility to ensure that the WFD is given effect. This includes responsibility for economic analysis, approving proposals for a programme of measures and approval of draft river basin management plans.

1.4 *Northern Ireland*

Each of the River Basin Management Plans for NI state that:

"In order to ensure the successful delivery of the final Plan it is of key importance that an implementation plan is delivered, maintained and monitored.

The implementation plan will be used to monitor and report on progress against the agreed objectives and measures".

From this statement it is evident that an implementation plan has yet to be developed however it should not be inferred that this indicates action is not being taken. Indeed section 5 of each of the plan lists the actions that are currently being carried out and by whom, and what further actions can be taken to deliver environmental objectives. It should also be mentioned that a Northern Ireland WFD Stakeholder Forum and nine Catchment Stakeholder Groups (CSGs) – one for each NI catchment – have been established as part of the consultation process. The Stakeholder Forum was established in 2005 and is comprised of representatives from a wide range of interests including environment, industry, agriculture, and conservation. It has met 14 times since June 2005 to discuss a number of issues relating to the WFD including the production of the draft River Basin Management Plans.

The CSGs meet biannually to discuss local water management, and “*will enable stakeholders to engage with the statutory authorities in order to influence decisions on how the Water Framework Directive is implemented in Northern Ireland*”³. However, while the plans state that “*We will continue to work with our stakeholders to identify new measures that we could develop through partnership initiatives*”⁴ it is not clear if CSGs will continue after the river basin management plans are finalised.

A key difference between NI and Scotland/RoI is that local or district councils will have significant responsibility for implementation in both Scotland and RoI. The link between local delivery and national implementation, in a NI context, has not been explored in the NI river basin management plans therefore clarification should be sought on this.

March 25th 2008

Appendix 1

Coordination so far

The primary means of co-ordination is through the North-South Water Framework Directive Coordination Group, which is supported by a number of technical working groups with representatives from the implementing authorities in Ireland and Northern Ireland. Table 2 presents the principal areas of cooperation in the development of the River Basin Management Plans

Table 2 Coordination so far

Date	WFD requirements	Implementation: Ireland	Implementation: Northern Ireland
2000	Directive enters into force	n/a	n/a
2003	Directive to be transposed into national law	Water Policy Regulations (SI 722 of 2003, subsequently amended by SI 413 of 2005 and SI 219 of 2008); requirement to consult with Northern Ireland authorities included	Water Environment (WFD) Regulations (Northern Ireland) 2003 (SR No. 544); requirement to consult with Ireland authorities included
	International River Basin Districts and River Basin Districts to be identified	Joint consultation document <i>Managing our Shared Waters</i> identified IRBDs and set out the administrative arrangements	
	Competent authorities to be identified	Listed in regulations	Listed in regulations
2004	Characterisation of surface and groundwaters to be completed	Submitted to European Commission in 2005	Submitted to European Commission in 2005
	Impacts of human activity (industry, farming etc) to be identified	Both jurisdictions used the same systems for characterising groundwaters, transitional waters and coastal waters. Both used the RIVTYPE system, developed in Ireland, for rivers and lakes. A joint identification code, recognising both jurisdictions, was used for cross-border shared waters.	
	Economic analysis of water use to be completed	Submitted to European Commission in 2005	Submitted to European Commission in 2005
	Location and boundaries of water bodies to be identified	Common risk assessment methodologies and rules developed by eco-region Technical Advisory Groups were applied. A joint working group ensured consistency. Results for shared waters were reviewed; most assessments were similar with some variations due to differences in national data sets; overall the process was well harmonised. A single characterisation report was prepared for each IRBD. Results from both jurisdictions are available on WISE (Water Information System for Europe).	
	Reference conditions for water status to be defined	Baseline submitted to European Commission in 2005	Baseline submitted to European Commission in 2005
	Register of protected areas to be established	Consultation between the two jurisdictions. Some differences in availability of economic data and in extent of cost recovery. Difficult to harmonise baseline economic information; consultations on economic analysis continue.	
		Submitted to European Commission in 2005	Submitted to European Commission in 2005
		The authorities consulted each other on the boundaries before reporting.	
		Submitted to European Commission in 2005	Submitted to European Commission in 2005
		The authorities consulted each other on the conditions before reporting.	
		Submitted to European Commission in 2005	Submitted to European Commission in 2005
		The authorities consulted each other on the registers before reporting. There is a high level of consistency in the approaches but with some differences stemming from historic decisions. Since then conservation authorities (Natural Heritage and National Parks and Wildlife Service) have been harmonising the registers, producing a joint electronic map of protected areas and progressing joint studies.	

2006	Environmental monitoring to be established and operational to ensure comprehensive view of water quality in each River Basin District	Monitoring programmes designed, consulted on and implemented by end-2006	Monitoring programmes designed, consulted on and implemented by end-2006
	Both jurisdictions monitor groundwater sites and transitional and coastal waters, as well as representative sites on cross-border rivers and lakes. Joint programmes, set up through the NS Share study, monitor dangerous substances and biological status.	Scientists across Europe have collaborated on the development of compatible water classification systems. Ireland and the UK are in the same geographical intercalibration groups. The authorities in Ireland and Northern Ireland are also cooperating through the eco-region's Technical Advisory Groups, on harmonising water status systems. Maps of monitoring networks for both jurisdictions are available on WISE.	
	Work programme for production of River Basin Management Plans for each River Basin District to be published	Published in 2006	Published in 2006
	Public Participation	The two environment departments consulted each other on the draft work programmes. Both work programmes confirmed that coordinated action in shared waters would include production of a single report on significant water management issues for each international river basin district.	
2007	Interim overview of the significant water management issues for each River Basin District to be published	Ongoing coordination arrangements regarding public participation include reciprocal invites to attend meetings of the formal stakeholder groups in Northern Ireland and the Advisory Councils in Ireland.	Published June 2007
		Published June 2007	Published June 2007
		The authorities in both jurisdictions agreed a common timeframe and report content. For each international river basin district, a single report on significant water management issues was produced; stakeholders and authorities groups were asked to help identify the key issues and views were gathered at public workshops in the following six months. A strategic environmental assessment scoping study and subsequent consultations were undertaken, based on the single Significant Water Management Issues report for the international river basin districts.	Ongoing coordination arrangements regarding public participation include reciprocal invites to attend meetings of the formal stakeholder groups in Northern Ireland and the Advisory Councils in Ireland.
2008	This document forms part of the Draft River Basin Management Plan to be published for public consultation by December 2008	Draft management plans to be published for public consultation in December 2008	Draft management plans to be published for public consultation in December 2008
		The authorities have developed guidelines on coordinating implementation of river basin management plans. Representatives from environmental agencies in both jurisdictions were involved in steering groups to share knowledge, aiming for consistency in method and approach. North South Technical Advisory Groups applied the classification systems to determine the status of waters, with the results being reviewed by officials in both jurisdictions. Consultations on objective setting for international waters continued during 2007 and 2008, including shared technical studies of objectives for heavily modified waters and protected areas.	For the draft plans, the authorities in both jurisdictions agreed to use a common template. This component of the Draft River Basin Management Plan describes collaboration to date and the commitment to future coordination of implementation. Detailed information on status, objectives and measures is presented separately, to allow focused consultations, in draft plan summary documents for each jurisdiction. An electronic information system covering the status, objectives and measures for each waterbody and background documents are available on websites.
		It has been necessary to carry out a Strategic Environmental Assessment of the draft plans and programmes of measures. A single collaborative strategic environmental assessment has been commissioned to cover both jurisdictions. During 2008 an environmental report was produced for each of the island's eight national and international river basin management plans and their associated programmes of measures.	

¹ http://www.sepa.org.uk/water/river_basin_planning/scotland.aspx

² <http://www.serbd.com/water-matters.htm>

³ Catchment Stakeholder Groups. Terms of Reference. Revision:2008

⁴ Section 7 p.114 of the North Eastern River Basin Management Plan