NORTH–SOUTH COORDINATION IN IRELAND'S INTERNATIONAL RIVER BASIN DISTRICTS

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ABSTRACT

The EU Water Framework Directive (WFD) aims to promote common approaches, standards and measures for water management on a systematic and comparable basis throughout the EU. All waters must be managed on the basis of natural geographical areas called river basin districts (RBDs). Within the EU many RBDs are shared by member states. These cross-border districts are called international RBDs (IRBDs), in accordance with Article 3.3 of the WFD. Member states are required to coordinate their efforts in these international districts, with the aim of producing a single river basin management plan covering each entire district (Article 13.2). There are three IRBDs on the island of Ireland, all straddling the border between the Republic of Ireland and Northern Ireland—the North Western, Neagh Bann and Shannon districts. The competent authorities identified in the Republic of Ireland and Northern Ireland with responsibility for implementation of the directive have taken significant steps to harmonise the approaches adopted in the two jurisdictions. So far, the competent authorities have maintained a high level of coordination and have successfully met all of the directive's milestones.

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Cite as follows:
Murphy, Katie and
Glasgow, Grace
2009 North–South
coordination in
Ireland's international
river basin districts.
Biology and
Environment:
Proceedings of
the Royal Irish
Academy 109B,
139–50. DOI: 10.3318/
BIOE.2009.109.3.139.

INTRODUCTION

The EU Water Framework Directive (WFD; 2000/60/EC; European Parliament and Council 2000), which came into force on 22 December 2000, aims to promote common approaches, standards and measures for water management on a systematic and comparable basis throughout the EU. In accordance with the directive, all waters, including rivers, canals, lakes, reservoirs, wetlands, transitional waters (estuaries), coastal waters and groundwaters, must be managed on the basis of natural geographical areas called river basin districts (RBDs), which are made up of adjacent catchments, or river basins, and their associated groundwaters and coastal waters.

Within the EU many RBDs are shared by member states, and these cross-border districts are called international RBDs (IRBDs), in accordance with Article 3.3 of the directive. On the island of Ireland a total of eight RBDs have been identified. One of these is entirely in Northern Ireland, four are entirely in the Republic of Ireland, and three are IRBDs—namely the Shannon IRBD, the North Western IRBD and the Neagh Bann IRBD.

River basin management plans (RBMPs) must be developed for each RBD, establishing

the pressures on, and status of, the waters in the district, setting out environmental objectives for those waters and prescribing the measures that will be required in order to achieve the objectives. In international districts member states are required to coordinate their efforts, with the aim of producing a single RBMP covering each entire district (Article 13.2). In accordance with this requirement, the competent authorities identified in the Republic of Ireland and Northern Ireland with responsibility for implementing the directive have coordinated their implementation efforts in these international districts.

Draft RBMPs were published in December 2008 for each of the RBDs in Ireland. These will be consulted upon and be formally adopted during 2009, and final RBMPs will be published in December 2009 for the first planning cycle, from 2009 to 2015. Two further planning cycles will follow—2015 to 2021 and 2021 to 2027.

This paper outlines the coordination efforts undertaken so far by the competent authorities in the Republic of Ireland and Northern Ireland in the implementation of the WFD, as well as the commitment to future coordination. The similarities and differences in approach and outcomes between the two jurisdictions are described.

IRELAND'S INTERNATIONAL RIVER BASIN DISTRICTS

The three IRBDs on the island of Ireland are shown in Fig. 1. The Shannon IRBD includes the Shannon river basin, which drains an extensive area of the midlands of Ireland, together with small coastal river basins in counties Clare and

Kerry. It is the largest district in Ireland, at more than 18,000km² in area. A very small portion of the district, approximately 6km², lies in Co. Fermanagh in Northern Ireland. Regardless of the fact that this portion represents a very small percentage of the entire area, the Shannon district was identified as an international district in accordance with the requirements of the WFD.

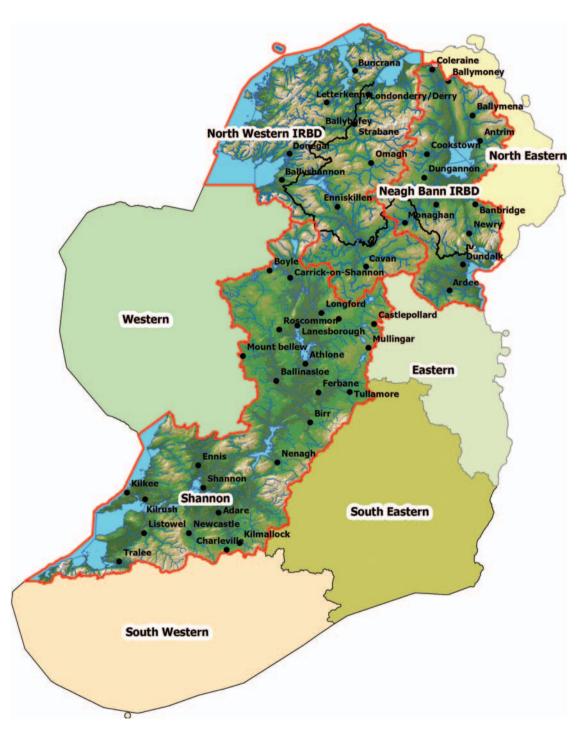


Fig. 1—International river basin districts.

The Neagh Bann IRBD includes the Lough Neagh and River Bann basins, as well as river basins draining to the outer estuarine limits of Dundalk Bay (Rivers Fane, Castletown, Cully Water, Kilcurry, Ballymascanlan and Flurry) and Carlingford Lough (Newry River). The area of the district is approximately 8,000km², with 2,000km² in the Republic of Ireland and 6,000km² in Northern Ireland.

The North Western IRBD includes the Erne and Foyle river basins, together with the basins of Lough Melvin, Bradoge River and Lough Swilly and related small coastal river basins in west Co. Donegal. The district is approximately 12,300km² in area, with 7,400km² in the Republic of Ireland and 4,900 km² in Northern Ireland.

TRADITION OF COORDINATION

The WFD requires the Republic of Ireland and Northern Ireland to coordinate their implementation efforts in the three IRBDs and to produce a single RBMP for each district. There is a tradition of cross-border coordination in Ireland on water-management issues. This has been sensible given that:

- substantial areas lie within cross-border catchments;
- some waters in each jurisdiction flow into or through the other jurisdiction:
- the rivers and lakes of the island of Ireland are designated as being within a single ecoregion (ecoregion 17), requiring a high degree of coordination between the authorities in both jurisdictions to ensure consistent management of the entire aquatic environment;
- all coastal and transitional waters surrounding the island of Ireland are also included in one ecoregion (ecoregion 1), and their management must be closely coordinated.

Before the introduction of the WFD, coordination between the Republic of Ireland and Northern Ireland was less structured and formalised. Coordination efforts included arrangements for the notification of, and responses to, pollution incidents. Also, strategies for water-quality management were jointly developed for some cross-border catchments; for example, the Foyle and Erne catchment strategies of the early 1990s.

WATER FRAMEWORK DIRECTIVE COORDINATION

In 2003, once the WFD was transposed into national law in both jurisdictions, the first steps

were taken in the coordinated implementation of the WFD, with the identification of the competent authorities and the delineation of the RBDs and IRBDs. Since then, substantial coordination of effort between the two jurisdictions has accompanied every stage of the directive's implementation. So far, the responsible government authorities in both jurisdictions have maintained a high level of coordination and have successfully reached all of the directive's milestones.

COMPETENT AUTHORITIES

In the Republic of Ireland the competent authorities responsible for implementation of the WFD are identified in the European Communities (Water Policy) Regulations (S.I. No. 722 of 2003; Government of Ireland 2003). The Department of the Environment, Heritage and Local Government (DEHLG) has a coordination role in relation to implementation, and the department's minister has issued technical guidance to assist public authorities in fulfilling their responsibilities (DEHLG 2008). The Environmental Protection Agency (EPA) is responsible for many of the technical aspects of the WFD, as well as for reporting to the European Commission. Local authorities are responsible for setting objectives for waters and for developing RBMPs and Programmes of Measures (POMs). Each RBD has a coordinating local authority to ensure that the local authorities act jointly in producing RBMPs.

In Northern Ireland the competent authorities are identified in the Water Environment (Water Framework Directive) Regulations (Northern Ireland) (S.R. No. 544 of 2003; Government of the UK 2003). Implementation of the WFD is coordinated by the Department of the Environment (DOE), and its agency, the Northern Ireland Environment Agency (NIEA; formerly Environment and Heritage Service), is the lead body responsible for the technical aspects of implementation. Other government departments with responsibilities include the Department of Agriculture and Rural Development; the Department of Culture, Arts and Leisure; and the Department of Regional Development. An Interdepartmental Working Board, which includes the four main government departments responsible for implementing the directive, was established to oversee and coordinate the strategic implementation of the directive. The board has established an Implementation Working Group to coordinate the activities of the government departments and agencies involved.

The primary means of coordination between the two jurisdictions is the North–South WFD Coordination Group, comprised principally of officials from the DOE and the NIEA in the North and from the DEHLG and the EPA in the South. Other government departments and their agencies and other relevant organisations are also represented. The North–South Technical Advisory Group advises on technical issues in relation to joint implementation of the directive.

The North South Shared Aquatic Resources (NS SHARE) project, which was funded under the INTERREG IIIA programme, was set up to assist in the development and promotion of common North–South technical approaches for water management, and it has been instrumental at ensuring coordination between the two jurisdictions.

COORDINATION SO FAR

The principal areas of cooperation in the development of the RBMPs are outlined in Table 1. The first significant cooperation on WFD

implementation between the two jurisdictions was the identification of competent authorities and the delineation of RBDs following the transposition of the directive in 2003. A joint consultation document, entitled *Managing our shared waters* (DOE and DEHLG 2003), was published to describe the extent and characteristics of the three IRBDs and to outline the administrative arrangements proposed for them.

During 2004 and 2005 a characterisation process was undertaken in both jurisdictions, in accordance with Article 5 of the directive. The two jurisdictions cooperated on the delineation and characterisation of groundwater and surface waterbodies, as well as on the assessment of the risks posed to the waterbodies from various human activities. Both jurisdictions used the same systems for characterising waters, and a common coding system was developed for shared waters. A joint working group ensured consistency between the risk assessments, although there were some differences due to the unavailability of data sets. Registers of Protected

Table 1-North-South WFD coordination thus far.

Date	WFD requirements	Implementation			
		Republic of Ireland	Northern Ireland		
2000	Directive enters into force.				
2003	Directive to be transposed into national law.	Water Policy Regulations (S.I. No. 722 of 2003, subsequently amended by S.I. No. 413 of 2005 and S.I. No. 219 of 2008; Government of Ireland 2003; 2005; 2008) include requirement to consult with Northern Ireland authorities.	Water Environment (WFD) Regulations (Northern Ireland) (S.R. No. 544 of 2003; Government of the UK 2003) include requirement to consult with Republic of Ireland authorities.		
	IRBDs and RBDs to be identified.	Joint consultation document—Managing our shared waters—developed, which identified IRBDs and set out the administrative arrangements.			
	Competent authorities to be identified.	Listed in regulations.	Listed in regulations.		
2004	Characterisation of surface waters and groundwaters to be completed.	Submitted to European Commission in 2005.	Submitted to European Commission in 2005.		
		Both jurisdictions used the same systems for characterising groundwaters, transitional waters and coastal waters. Both used the RIVTYPE system, developed in the Republic of Ireland, for rivers and lakes. A joint identification code, recognising both jurisdictions, was used for cross-border waters.			
	Impacts of human activity (industry, farming, etc.) to be identified.	Submitted to European Commission in 2005.	Submitted to European Commission in 2005.		

Table 1—(Continued)

Date	WFD requirements	Implementation		
		Republic of Ireland	Northern Ireland	
		Common risk-assessment method the ecoregion's technical advisory working group ensured consistence reviewed. Most assessments were to differences in national data sets; harmonised. A single characterisat IRBD. Results from both jurisdic Information System for Europe; V	groups were applied. A joint by. Results for shared waters were similar, with some variations due overall, the process was well ion report was prepared for each tions are available on WISE (Water	
	Economic analysis of water use to be completed.	Baseline submitted to European Commission in 2005.	Baseline submitted to European Commission in 2005.	
		Consultation between the two jur availability of economic data and it to harmonise baseline economic in economic analysis continue.	n extent of cost recovery. Difficult	
	Location and boundaries of waterbodies to be identified.	Submitted to European Commission in 2005.	Submitted to European Commission in 2005.	
		The authorities consulted each oth reporting.	ner on the boundaries before	
	Reference conditions for water status to be defined.	Submitted to European Commission in 2005.	Submitted to European Commission in 2005.	
		The authorities consulted each oth reporting.	ner on the conditions before	
	Register of Protected Areas to be established.	Submitted to European Commission in 2005.	Submitted to European Commission in 2005.	
			consistency in the approaches, but com historical decisions. Since then Heritage and National Parks and onising the registers, producing a	
2006	Environmental monitoring to be established and operational to ensure comprehensive view of water quality in each RBD.	Monitoring programmes designed, consulted on and implemented by end of 2006.	Monitoring programmes designed, consulted on and implemented by end of 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 the Republic of Ireland and Northern Ireland are also cooperating, through the ecoregion's technical advisory groups, on harmonising water-status systems. Maps of monitoring networks and status for both jurisdictions are available on WISE (2009).		

Table 1—(Continued)

Date	WFD requirements	Implementation			
		Republic of Ireland	Northern Ireland		
	Work programme for production of RBMPs for each RBD to be published.	Published in 2006.	Published in 2006.		
		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 IRB			
	Public participation.	include reciprocal invites to atte	nents regarding public participation nd meetings of the formal Ireland and of the advisory councils		
2007	Interim overview of the significant water- management issues for each RBD to be published.	Published in June 2007.	Published in June 2007.		
		The authorities in both jurisdictions agreed common time frame and report content. For each IRBD, a single report on significant water-management issues was produced; groups of stakeholders and authorities were asked to help identify the key issues, and views were gathered at public workshops in the following six months.			
		An SEA scoping study and subsequent consultations were undertaken based on the reports on significant water-management issues for the IRBDs.			
		Ongoing coordination arrangements regarding public participation include reciprocal invites to attend meetings of the formal stakeholder groups in Northern Ireland and of the advisory council in the Republic of Ireland.			
2008	Draft RBMPs to be published for consultation.	Draft management plans published in December 2008; consultation period to follow.	Draft management plans published in December 2008; consultation period to follow.		
		The authorities have developed guidelines on coordinating implementation of RBMPs.			
		Representatives from environmental agencies in both jurisdictions were involved in steering groups to share knowledge, aiming for consistency in method and approach. The North–South Technical Advisory Group 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 u a common template. The first component, the <i>Working together—managing our shared waters</i> documents, describes the collaboration to date and the commitment to future coordination of implementation. The second component, the draft RBMPs, provides detailed information on status, objectives and measures, and allows focused consultations in each jurisdiction. The third component is an			

Table 1—(Continued)

Date	WFD requirements	Implementation		
		Republic of Ireland	Northern Ireland	
	electronic information system that displays the status, objectives and measures for each waterbody. Finally, the fourth componen comprises a suite of detailed, technical background documents of various aspects of the WFD-implementation process.		Finally, the fourth component ical background documents on	
		It was necessary to carry out an SE. A single collaborative SEA has been jurisdictions. During 2008 an envir for each of the island's eight nation their associated POMs.	n commissioned to cover both conmental report was produced	

Areas were also developed in both jurisdictions during this phase of implementation. Some differences resulting from historical decisions were apparent in the registers. However, the National Parks and Wildlife Service in the Republic of Ireland and Natural Heritage in Northern Ireland continue to cooperate to harmonise the registers and to produce joint electronic maps. At the end of the characterisation process, a single characterisation report was developed for each IR BD.

In 2006 WFD monitoring programmes were developed and made operational to ensure a comprehensive overview of water quality in each district. The authorities in both jurisdictions collaborated on the development of compatible water-classification systems through ecoregion-specific intercalibration groups and technical advisory groups. The monitoring network that was established includes representative sites in cross-border waters. The NS SHARE study facilitated the establishment of joint programmes to monitor dangerous substances and biological status.

Also in 2006 work programmes for the production of RBMPs were published in both jurisdictions. Consultation between the authorities in the two jurisdictions took place during the drafting of these work programmes, and the documents that were produced confirmed the commitment to ongoing cooperation efforts.

In 2007 each district published an interim overview of its significant water-management issues (NS SHARE Project 2007a; 2007b; Shannon IRBD Project 2007). In each of the three IRBDs a single report was published covering the entire district. Groups of stakeholders and authorities in both jurisdictions were asked to help identify the key issues at public workshops during the six-month consultation period for the document.

A strategic environmental assessment (SEA), which identifies and assesses the wider environmental impacts of plans and programmes, was carried out on the reports on significant watermanagement issues, in accordance with the requirements of the SEA Directive (2001/42/EC). A single collaborative scoping report was produced for each of the three IRBDs, and subsequent consultations invited feedback from interested parties in both jurisdictions.

The draft RBMPS and POMs were published in December 2008. The authorities in both jurisdictions agreed to use a common template, which was developed through the NS SHARE project. Steering groups, with representatives from both jurisdictions, also ensured consistency in method and approach. The North–South Technical Advisory Group applied intercalibrated classification systems to determine the status of shared waters, and the results were reviewed by both jurisdictions. Consultations on objective setting for international waters continued during 2007 and 2008, and included shared technical studies of objectives for heavily modified and artificial waters.

The draft plans for the international districts are made up of a number of components:

- High-level documents, entitled *Working together—managing our shared waters* (NS SHARE Project 2008c; 2008d), describe the collaboration to date and the commitment to future coordination of implementation efforts, as well as outlining the status, objectives and measures in shared waters. Fig. 2 and Table 2 summarise the status established, and objectives set, for the shared waters in all three international districts.
- Detailed information on status, objectives and measures is presented separately for each jurisdiction in draft plan summary documents in order to facilitate focused consultation efforts in each jurisdiction (NIEA 2008a; 2008b; NS



Fig. 2—Status and objectives for shared waters established in draft RBMPs.



Fig. 2—(Continued)

Table 2—Status and objectives in shared river waterbodies.

	North West	North Western IRBD		Neagh Bann IRBD		Shannon IRBD	
	Number	%	Number	%	Number	%	
Status							
High	1	2.0	0	0	0	0	
Good	12	23.5	3	11.5	0	0	
Moderate	29	56.9	8	30.8	1	100	
Poor	4	7.8	14	53.9	0	0	
Bad	5	9.8	1	3.8	0	0	
Objectives							
Protect	13	25.5	3	11.5	0	0	
Restore 2015	27	52.9	14	53.9	1	100	
Restore 2021	11	21.6	9	34.6	0	0	
Restore 2027	0	0	0	0	0	0	

SHARE Project 2008a; 2008b; Shannon IRBD Project 2008).

 Finally, background documents and an electronic information system are available online (NIEA 2009; WFD Ireland 2009) to provide more technical detail on the preparation of RBMPs and POMs and to allow detailed interrogation of the status, objectives and measures, down to individual waterbody level.

The SEA process continued in relation to the RBMPs and POMs, and single collaborative environmental reports were produced for each IRBD at the end of 2008. These documents will be consulted on and finalised for the final plans in December 2009.

In accordance with the Habitats Directive (92/43/EEC), Habitats Directive Assessments were undertaken to assess the implications of the RBMPs and POMs for Natura 2000 sites, and single appropriate assessment reports were produced for each IRBD in December 2008. These assessments will be finalised for the final plans in December 2009.

Preliminary assessment of the economic aspects of the POMs has been undertaken in both jurisdictions. Impact-assessment reports, identifying the costs, benefits and implications of implementing the POMs, will be prepared for the final plans in December 2009.

Throughout the WFD-implementation process, effort has been made to coordinate consultation and public-participation activities in both jurisdictions. Reciprocal invites were issued to attend meetings and conferences of the formal stakeholder groups in Northern Ireland and of the advisory councils in the Republic of Ireland. The RBDs have cooperated and collaborated

at various public-participation events to facilitate active and integrated public involvement, ensuring that interested parties in both jurisdictions are presented with a holistic view of water issues in their district.

CONTINUING COORDINATION

The draft plans will be consulted on, and they will be adopted as final plans in December 2009. There is still a lot of work to be done before the publication of the final plans. Table 3 outlines future coordination activities.

The competent authorities in both jurisdictions will continue to coordinate their activities, with the aim of producing harmonised final plans for each of the international districts. These activities will include refining status; subsequent review and revision of objectives; development of measures and assessment of their effectiveness; development of implementation plans and approaches; and consideration and incorporation of consultation responses into the final plans. Implementation of the final plans will see the challenge of coordination grow rather than diminish as the RBMPs begin to impact on stakeholders more directly.

Preparation of the draft plans has revealed some differences in existing legislative and implementation systems. Further harmonisation will be achieved over time through ongoing review and integration of supporting plans and programmes.

The North-South WFD Coordination Group will continue to oversee the coordination between the authorities in the two jurisdictions during the implementation of the first plan from 2009 to 2015, as well as during the

Table 3—Continuing coordination.

Date	WFD requirements	Implementation: Republic of Ireland and Northern Ireland		
2009	RBMPs to be finalised and published.	The North–South Ministerial Council confirmed in October 2007 that implementation of the WFD in both jurisdictions would be carried forward, with the aim of producing a single RBMP for each of the IRBDs. These plans are to be adopted by December 2009.		
		During 2009 the SEA process will continue, with consultations and preparation of a single environmental statement to accompany the final RBMP for each district.		
	POMs to be established in each RBD to meet environmental objectives.	Preparation of the draft POMs has revealed some differences in existing legislative and implementation systems. Further harmonisation will be achieved through future review of supporting plans and programmes.		
2010	Water-pricing policies to be in place.	Coordination will be advanced under the remit of the North–South WFD Coordination Group.		
2012	POMs to be fully operational.	Further consultation will be achieved under the remit of the North–South WFD Coordination Group.		
	Progress to be monitored.	Interim progress reports will be prepared on implementation of planned POMs.		
2015	Main environmental objectives to be met.	RBMPs will be reviewed and updated.		
2021	Second six-year planning cycle ends.	RBMPs will be reviewed and updated.		
2027	Third six-year planning cycle ends.	RBMPs will be reviewed and updated.		

implementation of the further two planning cycles, from 2015 to 2021 and from 2021 to 2027. This will include the establishment of waterpricing policies in 2010 and the monitoring of progress to ensure that the objectives are met. The group will also ensure coordination in the review and update process of the plans. Consideration will also be given to ways of further enhancing coordination arrangements to support implementation of measures in the IR BDs' shared waters.

COORDINATING WITH OTHER PLANS AND PROGRAMMES

There are a number of existing plans and programmes in other relevant policy areas under both European and national legislation that contribute to the management of the water environment. RBMPs must be integrated and coordinated with these plans and programmes if the objectives of the WFD are to be met. These plans and programmes include:

plans for Natura 2000 sites with water-dependent features, under the Habitats (92/43/EEC;

Council of the European Union 1992) and Birds (79/409/EEC; Council of the European Union 1979) Directives;

- Water Services Strategic Plans (Ireland) or Northern Ireland Water investment programmes;
- the Nitrates Action Programmes, already closely aligned in both jurisdictions;
- strategic National Development Plans and related local plans.

Both jurisdictions have compiled registers of existing relevant plans and programmes and have identified opportunities for integration. This integration will take time, particularly where administrative areas and time frames for implementation differ.

The development of new plans and programmes must also be coordinated. For example, regulations being introduced in the Republic of Ireland for new environmental quality standards require public authorities to consult, cooperate and liaise with other public authorities within the RBD and, where appropriate, with the competent authorities in Northern Ireland.

ASSESSING REGULATORY IMPACTS

The WFD requires a range of regulatory controls to give legal effect to measures; for example, authorisation of abstractions and physical modifications. The introduction of new regulatory controls will be coordinated between authorities in the two jurisdictions, where appropriate. Any significant proposals for regulatory controls in either jurisdiction require Regulatory Impact Assessment to evaluate whether the new regulations will have the desired impact, undesirable side effects or unforeseen extra costs. Such assessment also helps to clarify the cost of enforcement of the regulations.

CONCLUSIONS

Coordination efforts have so far been successful in the WFD-implementation process, and all of the requirements thus far have been met. Water-management approaches, standards and measures in both jurisdictions are more compatible than ever before as a result. Both jurisdictions have continually reiterated their commitment to ongoing coordination and integration efforts, and this is likely to become an increasing challenge as the final RBMPs are implemented, and begin to impact on stakeholders. However, over time, harmonisation in the two jurisdictions will be strengthened as water-management activities become increasingly aligned and as comparable data sets accrue.

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