

Environmental RTDI Programme 2000–2006

The Water Framework Directive, Assessment, Participation and Protected Areas: What are the Relationships? (WAPPA)

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Synthesis Report

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by

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WATER QUALITY

The Water Quality Section of the Environmental RTDI programme addresses the need for research in Ireland to inform policymakers and other stakeholders on a range of questions in this area. The reports in this series are intended as contributions to the necessary debate on water quality and the environment.

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Executive Summary

The Water Framework Directive (WFD) 2000/60/EC has significant interconnections and linkages with other EU legislation. The focus of this study was on the similarities and overlaps between the WFD and the Environmental Assessment directives (Environmental Impact Assessment [EIA] – 85/337/EEC as amended by 97/11/EC and 2003/35/EC, and Strategic Environmental Assessment [SEA] – 2001/42/EC), Public Participation directive (2003/35/EC), and the Birds (79/409/EEC) and Habitats (92/43/EC) directives. The aim of the study was to examine the extent and nature of potential overlaps of the WFD with the Birds, Habitats, Public Participation, EIA and SEA directives within River Basin Districts (RBDs) in Ireland. Specific objectives were to:

- clarify the legal relationship between the six directives;
- identify situations where overlaps are possible;
- describe in detail selected case studies of potential overlaps within RBDs in Ireland; and
- make recommendations for resolving any problems which emerge.

The research was undertaken primarily from January to July 2006 and included an extensive literature review, a review of relevant case law, detailed textual and legal analysis of the directives, an email survey of stakeholders and detailed analysis of three case studies. The WFD provided the focus for the textual analysis of the six directives and its linkages with the other directives. The key links between the WFD and the other directives relate, for example, to their objectives to integrate the environment into decision-making, forms of assessment required, and public involvement in decision-making. Three case studies were selected (Greater Dublin Water Supply, Lough Corrib, and international RBDs with Northern Ireland, UK), each with the potential to highlight different sets of interactions between the WFD and the other directives.

Most significant among the interactions identified was the potential for overlap in assessment between the WFD and SEA. All river basin management plans (RBMPs) and programmes of measure (POMs) will need to be screened for SEA, but *prima facie* both would appear to have the potential to meet the SEA directive criteria. The view from this research is that both RBMPs and POMs should be subject to the SEA directive, recognising that each will need to assess different issues at their respective levels. The consultation requirements on the RBMPs are quite demanding and consultation strategies need to be put in place well in advance of drafting the RBMPs/POMs. SEA can help facilitate this, for example through consultation on the environmental report at the same time as the draft RBMP/POMs. There is a need for consistent methods of involving ‘interested parties’ across the RBDs and for good coordination between authorities managing RBDs.

The potential interactions between RBMPs and county development plans (CDPs) are numerous and potentially far reaching. The exact nature of the relationship will depend upon the types of developments that are likely to emerge out of the RBMP/POMs process that are of sufficient importance to influence CDPs; and those that are likely to arise through the development planning process and have significant influence upon the RBMP/POMs process. SEAs and EIAs may be triggered by RBMPs/POMs and CDPs, amendments to these plans and via significant infrastructure projects, creating the potential for overlaps, duplication and synergy between different levels of assessment.

The WFD has the potential to complement the Habitats and Birds directives in improving the ecological status of aquatic Natura 2000 sites (the European ecological network of special areas of conservation). However, both RBMPs and POMs will need to be screened for appropriate assessment (AA) under the Habitats directive on a case-by-case basis as to whether they might have adverse effects on the integrity of a designated site. Guidance will also be needed on how AA should interact with SEA and EIA where these are undertaken for RBMPs, POMs and projects. From this research it is clear that data issues remain uppermost in terms of the challenges faced by RBDs and conservation bodies implementing the Birds and Habitats directives.

Baseline data from different processes, particularly in relation to conservation, need to be improved as a matter of urgency – both in terms of quality of data gathered and their availability.

Finally, although not considered in detail in this research (given its draft status) the proposed EU Floods directive provides a further example where potential overlap may occur with the WFD, and will warrant further study once it has been finalised.

1 Introduction

The Water Framework Directive (WFD) 2000/60/EC has significant interconnections and linkages with other European Union (EU) legislation. The focus of this study was on the similarities and overlaps between the WFD and the Environmental Assessment directives (Environmental Impact Assessment [EIA] – 85/337/EEC as amended by 97/11/EC and 2003/35/EC, and Strategic Environmental Assessment [SEA] – 2001/42/EC), Public Participation directive (2003/35/EC), and the Birds (79/409/EEC) and Habitats (92/43/EC) directives. The effectiveness of all directives is likely to be maximised by a much clearer understanding of how they might operate together in complementary and potentially synergistic ways, particularly in the way in which they are transposed and implemented in individual member states.

1.1 Aim

The aim of the study was to examine the extent and nature of potential overlaps of the WFD with the Birds, Habitats, Public Participation, EIA and SEA directives within River Basin Districts (RBDs) in Ireland.

1.2 Objectives

The objectives were to:

- clarify the legal relationship between the six directives (Task 1);
- identify situations where overlaps are possible (Task 2);
- describe in detail selected case studies of potential overlaps within River Basin Districts in Ireland (Task 3); and
- make recommendations for resolving any problems which emerge (Task 4).

1.3 Research Approach and Methodology

The main research period ran from January to July 2006. The Environmental Protection Agency (EPA) established a small steering group which met at the start of the project, on 23 March and 11 July 2006; members provided feedback on the draft reports. A presentation was also made to the WFD Technical Coordination Group on 9 March 2006, which provided useful contacts between RBDs for the case studies. The study involved a detailed examination of the legal texts of the above directives to provide an initial theoretical analysis of areas of overlap. The results of this review were also referred to Mr Zen Makuch (Barrister) at Imperial College London for further legal review.

This was followed by an extensive literature review and an email-based questionnaire survey of key stakeholders in the seven RBDs (under the WFD) in Ireland to identify more specific issues of overlap for further detailed case-study examination across the RBDs. Three case studies were selected to provide illustrative cases of where the WFD is most likely to interact with the other key directives in Ireland, and to provide the basis of recommendations for policy-makers and stakeholders on how to address potential problem areas and opportunities arising out of these overlaps. This is the synthesis (summary) report; the full final report is available to be downloaded from www.epa.ie.

2 The Legal Relationship between the Directives

2.1 Introduction

The links between the WFD, the EIA and SEA directives, the Public Participation directive and the Birds and Habitats directives¹ are superficially apparent – for example, in relation to their objectives to integrate the environment into decision-making, forms of assessment required, and public involvement in decision-making. Many of the principles enshrined in these directives have their origins in the debates of the 1970s and 1980s over new EIA legislation for the European Community (EC), which sought to integrate the environment into decision-making, reflected in the objectives of the early Environment Action Programmes of the EC. The context for these key environmental directives, however, has changed over 30 years, from environmental protection to environmental integration to sustainable development, thus influencing their implementation.

2.2 The Water Framework Directive (WFD)

The overall aim of WFD 2000/60/EC is the long-term protection of all surface water and groundwater in the European Union (EU). It sets out to:

- prevent further deterioration in, and to protect and enhance, the status of aquatic ecosystems;
- promote sustainable water consumption based on the long-term protection of available water resources; and
- contribute to the provision of a supply of water in the qualities and quantities needed for its sustainable use.

The main objectives of the WFD are to:

- expand the scope of water protection to all waters: surface waters and groundwater;

- achieve 'good status' for all waters by 2015;
- manage water based on river basins;
- establish a 'combined approach' using emission limit values and quality standards, plus the phasing out of particularly hazardous substances;
- involve the public more closely;
- ensure water pricing is correct; and
- streamline legislation.

To manage the water environment effectively the directive recognises that the whole river basin is the logical management unit and therefore requires member states (MSs) to identify river basins and their surface and groundwaters. The directive requires MSs to introduce river basin management plans (RBMPs) (Art. 13) for each river basin district (RBD). The concept of 'good water status' is also introduced by the directive, and is central to achieving its environmental aims. Surface waters will be measured in terms of both ecological and chemical status; groundwaters by quantitative and chemical status. To meet the objectives of good-water status the directive envisages the preparation and implementation of a 'programme of measures' (POMs) as part of the RBMP process. The RBMP also forms the focus for extensive consultation processes as part of involving the public more closely in river basin management decision-making. 'Competent authorities' (those given responsibility for RBMPs) will be expected to publish draft RBMPs for consultation, and these plans will be updated and consulted on every six years. The WFD also requires the creation of a register of protected areas (Art. 6) in MSs within four years of the directive entering into force. Protected areas are those which have been designated as requiring special protection under specific EC legislation for the protection of their surface water and groundwater or for the conservation of habitats and species depending directly on water.

¹ Directives 2000/60/EC; 85/337/EEC as amended by 97/11/EC and 2003/35/EC; 2001/42/EC; 2003/35/EC; 79/409/EEC; and 2/43/EEC respectively.

Implementation in Ireland

Directive 2000/60/EC was transposed into Irish law through the European Communities (Water Policy) Regulations 2003 (S.I. No. 722/2003). These regulations may require future amendments in order 'to support the ongoing, detailed implementation of the Directive' (DoEHLG, 2004a); for example, the amendment S.I. No. 413 of 2005, which sets out additional elements for the establishment of River Basin District Advisory Councils. Under the requirements of the directive to identify RBDs the Ireland and UK governments identified eight RBDs on the island of Ireland: one situated wholly in Northern Ireland, four situated in Southern Ireland, and three situated 'across-border' and known as 'International River Basin Districts' (IRBDs) (DoEHLG/DoENI, 2003). At the time of writing RBMPs were under way in all RBDs.

2.3 Brief Overview of the Other Directives

2.3.1 *Environmental Impact Assessment (EIA) Directive*

The Environmental Impact Assessment (EIA) directive (Directive 85/337/EEC) is the controlling document, which lays down rules for environmental-impact assessment in MSs. The directive applies to the assessment of the environmental effects of public and private projects that may have significant effects on the environment. There are two classes of projects for which EIA is required: (i) projects for which EIA is mandatory (projects listed in Annex I); and (ii) projects for which EIA is discretionary (projects listed in Annex II). Directive 97/11/EC, known as the 'EIA Amendment Directive', amends the 1985 directive. This was introduced primarily to improve the earlier directive from knowledge gained through the application of the 85/337/EEC directive. Features of the Amendment Directive include: a 'scoping opinion' – where advice is provided from the local authority to the developer on the scope of EIA; a 'screening opinion' – where the developer may approach the local authority for an opinion on screening; new common screening criteria; improved consideration of alternatives; provision for the

implementation of transboundary consultations between MSs under the Espoo Convention (UNECE, 1991); and changes to Annex I (inclusion of more projects) and Annex II (revised and updated in line with new technology, including clarifications on categories of project). The EIA directive was also most recently amended by the Public Participation directive (see Section 2.3.3 below).

Implementation in Ireland

The framework for applying EIA in Ireland was provided through the planning control procedures within the Local Government (Planning and Development) Acts, 1963 to 1983. The provision of EIA was implemented through the EC (Environmental Impact Assessment) Regulations 1989 (S.I. No. 349/1989). These EIA regulations excluded motorway schemes, the procedures for which were set out separately in the Local Government (Roads and Motorways) Act 1974 (now the Roads Act 1993). The EC (Environmental Impact Assessment) (Motorways) Regulations, 1988 (S.I. No. 221/1988), implemented EIA for proposed motorways. In 1997, however, a review of planning legislation took place and as a result it was decided that previous planning Acts and the EIA regulations would be consolidated into a new Planning and Development Act 2000. EIA requirements fall under Part X of this Act. The regulations, which implement the provisions of the Planning and Development Act, are the Planning and Development Regulations 2001 (S.I. No. 600/2001). EIA comes under Part 10 of the Planning and Development Regulations 2001 (Sheate et al., 2005).

As a result of the Planning and Development Regulations 2005 (S.I. No. 346/2005), amendments have recently been made to the Planning and Development Regulations 2001. These are mainly with regard to peat abstraction: large-scale peat abstraction projects involving areas greater than 10 hectares are no longer exempt from EIA. The 2005 regulations also make amendments to Schedule 5 of the 2001 regulations with regard to minor changes to the lists of project categories.

On 16 February 2006 the Irish government published The Planning and Development (Strategic Infrastructure) Bill 2006, which made amendments to the Planning and Development Act 2000 (enacted 16 July 2006).² This introduces a new consent process for major infrastructure of national and public importance (Finfacts Team, 2006), and could be considered a 'fast-track' planning procedure for major infrastructure projects (A&L Goodbody, 2006). Certain infrastructure projects, which are listed in a new Schedule 7 to the 2000 Planning Act, will be required to apply directly to An Bord Pleanála (the Irish Planning Appeals Board), rather than the relevant local authority for approval.

2.3.2 *The Strategic Environmental Assessment (SEA) Directive*

The main aim of Directive 2001/42/EC is to identify, describe and assess the likely significant environmental effects of certain plans and programmes, while they are being prepared and before they are adopted. The directive states that all plans and programmes within certain sectors (e.g. transport, water management, town and country planning) and those plans and programmes that set the framework for future development consent of projects, and which are listed in Annexes I and II of the EIA Directive 85/337/EEC, should be subject to environmental assessment.

Implementation in Ireland

Prior to the SEA directive there were no formal provisions for SEA in Ireland. However, under EU Structural Fund regulations (2081/93), an environmental assessment was required for national development plans, and the government introduced 'pilot' Eco-Audits (environmental appraisals) in 1999. These objectives-based appraisals were designed to be proactive and to occur at the policy-formation process. The Eco-Audit was piloted on the National Development Plan 2000–2006. Following the Eco-Audit it was hoped that a strategic environmental

assessment system would be developed and applied to major sectoral plans and programmes, and that the Eco-Audit would continue to be applied at government policy level (Sheate et al., 2001).

Transposing the SEA directive into Irish law was very much influenced by previous experiences of implementing EIA. A study which reviewed the Eco-Audit process recommended the 'upstream transfer of EIA philosophy, rather than methodology' when transposing the SEA directive (Scott et al., 2003). According to the Department of Environment, Heritage and Local Government (DoEHLG), the delays encountered previously in relation to EIA implementation were not to be repeated, and Ireland implemented the provisions of the SEA directive in full by 21 July 2004, ensuring that all substantive and procedural requirements of the directive were met. The importance of following the text of a directive was highlighted when implementing the EIA directive and this approach was taken when preparing the SEA regulations.

The SEA directive was transposed into Irish legislation through:

- The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435/2004) which covers plans and programmes as listed in Article 3(2) of the SEA directive except for land-use planning. These regulations make amendments to the Planning and Development Act 2000. This Act is the statutory basis for transposing the SEA directive into Irish legislation with regards to land-use planning.
- The Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436/2004) which covers those plans and programmes in relation to land-use planning and amending the Planning and Development Regulations 2001 (S.I. No. 600 of 2001), as amended and the Planning and Development (Regional Planning Guidelines) Regulations 2003 (S.I. No. 175 of 2003).

² Planning and Development (Strategic Infrastructure) Act 2006 (27/2006). Available from <http://www.oireachtas.ie/documents/bills28/acts/2006/a2706.pdf> [Last accessed 24/11/06].

In November 2004 the Minister for DoEHLG produced a guidance document to assist relevant authorities and development agencies in implementing the requirements of Directive 2001/42/EC in relation to land-use planning (DoEHLG, 2004b). As of 2005 there were no immediate plans for drawing up separate guidance in relation to SEA in other sectors, but because of the procedural nature of the current guidance document it is considered applicable to a broader range of sectors, not just land-use planning. The EPA published guidance on SEA methodology in 2003 (Scott and Marsden, 2003), which was piloted in 2005 for the Midlands Waste Management Plan Review.

In January 2006 the European Commission published a proposed directive on the assessment and management of floods (CEC, 2006a). It is likely that under this directive Ireland would be required to make flood-risk management plans statutory and as such subject to mandatory SEA, i.e. SEA would become a statutory requirement of flood management.

2.3.3 Public Participation Directive

The obligations arising under the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice (UNECE, 1998) are implemented through the Public Participation Directive 2003/35/EC. In particular, the directive provides for public participation regarding the drawing-up of certain plans and programmes relating to the environment (listed in Annex I) and makes amendments to the EIA directive (85/337/EEC) and Integrated Pollution Prevention and Control (IPPC) directive (96/61/EC) with regard to the improvement of public participation and the provision of access to justice. Some of the main changes to the EIA directive as a result include: requirement to inform the public earlier in the environmental decision-making process (e.g. 'scoping'); enabling affected MSs to participate in the environmental decision-making procedures if a project is likely to have transboundary impacts; provision of information on the public participation process by the competent authority; and ensuring that the public have access to a legal review procedure.

Implementation in Ireland

Although Ireland signed up to the Aarhus Convention on 25 June 1998, it has yet to ratify (accept formally) the convention as of the publication date of this report. The EU, however, has ratified the Aarhus Convention and places obligations on MSs through the Public Participation directive. Amendments resulting from Directive 2003/35/EC, including amendments to the EIA and IPPC directives, were required to be implemented by MSs by 25 June 2005. As of 10 April 2005, the Irish authorities had not provided any indication as to how they proposed to implement the amendments (Ryall, 2005), and as of 14 February 2006 these provisions had not been implemented, with a question in Dáil Éireann (the lower house of the Irish parliament) put to the Minister for the Environment, Heritage and Local Government asking when he intends to implement Directive 2003/35/EC (Oireachtais, 2006). However, amendments made to Schedule 5 of the Planning and Development Regulations 2001 by the Planning and Development Regulations 2005 are said to transpose part of Directive 2003/35/EC (DoEHLG, 2005).

The European Communities (Access to Information on the Environment) Regulations 2007, S.I. No. 133/2007 were made finally in March 2007, coming into force on 1 May 2007.

There are moves, however, to incorporate the Aarhus Convention provisions, particularly in relation to the 'provision on access to justice'. The new Planning and Development (Strategic Infrastructure) Act 2006 allows non-governmental organisations (NGOs) extended access to judicial reviews (s.13) and helps ensure that Ireland complies with the international obligations under the Aarhus Convention (Finfacts Team, 2006). Section 13 of the new Act replaces Section 50 of the Planning and Development Act 2000 with regards to judicial review of applications, appeals, referrals and other matters.

2.3.4 *Birds Directive*

This directive (79/409/EC) relates to the conservation of all species of wild birds that occur naturally within European MSs, with particular emphasis on their protection, management and control. Species listed in Annex I of the directive are subject to special conservation measures with regard to their habitats. Habitats/territories, which are most suitable for the conservation of these species, are required to be classified as 'Special Protection Areas' (SPAs). Further SPA designations are required for species including hen harrier, and wetland/aquatic species golden plover, kingfisher and red-throated diver. The Birds directive is linked directly to the Habitats directive in that SPAs are included in the Natura 2000 network.

Implementation in Ireland

The Birds directive requires, among other things, the designation of SPAs. These requirements were first transposed in Ireland through both primary and secondary legislation, with the first four SPAs in Ireland being designated under The European Communities (Conservation of Wild Birds) Regulations 1985 (Linehan, 2005). Linehan (2005) also notes that the 1985 regulations have been amended – through extension of its schedule over the years – to account for the expanding number of SPAs. There are 142 SPAs in Ireland, of which 14 are transboundary with Northern Ireland (DoEHLG, 2005). SPAs are now controlled by the EU (Natural Habitats) Regulations 1997 (S.I. No. 94/1997) and SPAs are considered part of 'Natura 2000'. As such, these controls are the same as those applied to Special Areas of Conservation (SACs) under the Habitats directive, also part of Natura 2000.

2.3.5 *Habitats Directive*

The Habitats directive (92/43/EC) is concerned with the conservation (restoration and maintenance) of natural habitats and wild species of fauna and flora. Sites which host the natural habitat types listed in Annex I, and wild species listed in Annex II of the directive, are required to be included in a European ecological network of special

areas of conservation called Natura 2000. Conservation measures are applied for the maintenance or restoration of natural habitats and/or population of species that occur within designated SACs.

Implementation in Ireland

Implementation of the Habitats directive was problematic in Ireland, as in many other MSs. A number of reasons – including high levels of controversy over designations and opposition from landowners concerning restrictions on land use – led to a delay in transposition and legal action by the European Commission (ECJ Case C-67/99). According to Laffan (2004) a threat by the Commission to withdraw Cohesion Fund monies was used as a lever on the Irish domestic system to speed up the process. The directive was transposed into Irish law in 1997 through the EU (Natural Habitats) Regulations 1997 (S.I. No. 94/1997). Irish habitats under these regulations include: raised bogs, active blanket bogs, turloughs, sand dunes, *machair*,³ heaths, lakes, rivers, woodlands, estuaries and sea inlets (DoEHLG, 2004). The designations process is now almost complete: 358 candidate SACs have been transmitted to the Commission while a further 65 will be transmitted in mid-2007 (NPWS, 2006).

2.4 Textual Analysis

The WFD provides the focus for the textual analysis of the six directives and its linkages with the other directives. Multiple linkages among other directives, but not including the WFD, are therefore not directly relevant to this study. The comparative analysis concentrates on the directives (as the 'parent' legislation) and not the transposition of these directives in Ireland. Transposition into Irish law is addressed more specifically in the context of the individual case studies in Chapter 4. Figure 2.1 illustrates the key linkages schematically and these linkages are explored further in the case studies. Brief explanations of the Article references are included in Table 2.1, and Table A1 in

³ Machair is a distinctive type of coastal grassland found in western Ireland and the north and west of Scotland. It is associated with calcareous sand, and blown inland by very strong prevailing winds from beaches and mobile dunes. The Gaelic word *Machair* is the only name for this major habitat type in Britain and Ireland.

Appendix 1 summarises the key overlaps and linkages identified across the specific articles of the six directives. Discussion of these issues follows below. Further detail is provided in the full final report.

2.4.1 Preambles

All the directives relate to the 'environment': 'water environment', 'environmental assessment', 'public participation in environmental matters', 'conservation of birds', and 'biodiversity'. The WFD preamble is consistent with both the EIA and SEA directives in that they all refer to 'integration' into either policy areas or decision-making. 'Protection' of the environment is a common thread between the WFD and SEA directives (and the Birds directive), as is the need for the WFD and SEA directives to fulfil the obligations of relevant international agreements/legislative requirements. The Public Participation directive is also required to fulfil the obligations arising under the Aarhus Convention.

Sustainability is an issue addressed by the WFD through the promotion of 'sustainable management' and by the SEA and Habitats directives through the 'promotion of sustainable development' and 'contribution to sustainable development', respectively. A key aim of the SEA directive, the WFD and European environmental policy is the achievement of sustainable development.

2.4.2 Titles

In terms of directive titles, the WFD does not share any common elements with the other directives i.e. it is 'stand-alone'. The WFD title specifically mentions 'water policy'. The EIA and SEA directives both refer to the 'assessment of effects', and while one relates specifically to 'public and private projects' (EIA), the other refers to 'plans and programmes' (SEA). The Public Participation directive is consistent with the SEA directive in that it also refers specifically to 'plans and programmes'. The Birds and Habitats directives share two common elements: both refer to 'conservation of' and both make reference to 'wild' aspects. The Birds directive refers to 'wild birds' whereas the Habitats directive refers to 'wild fauna'.

2.4.3 Objectives

Only three directives (EIA, SEA and Public Participation) refer specifically to their 'objectives' and only the SEA and Public Participation directives outline detailed objectives. The WFD directive sets out specific 'environmental' objectives in relation to the operation of the programme of measures (Art. 4). Articles in both the EIA and Habitats directives refer to the 'aims of this directive' (Arts 2[2] and 2[1] respectively), but only the Habitats directive sets these out explicitly. The WFD (Art. 1) and Birds directive (Art. 1[1]) use terms such as 'purpose of the Directive' and 'this directive relates to' respectively, to describe what each directive does.

The Public Participation directive makes a direct link with the EIA directive by amending it, for example by further specifying information to be provided to the public and the publication of reasons for consent decisions.

The SEA and the Public Participation directives both refer to plans and programmes: SEA in the context of the 'preparation and adoption of...' and Public Participation in the context of the 'drawing up of...'. Protection of the environment is a common element between the WFD and SEA directives, although the wording used is not identical.

One area with where the WFD does share a direct common element with the EIA and SEA directives is in the context of 'significant effects'. The WFD refers to 'significant adverse effects on the wider environment' (Art. 4[3]) in relation to the fulfilment of environmental objectives (though only in the context of HMWBs and AWBs) – while both the EIA and SEA directives refer to 'significant effects on the environment'.

2.4.4 Definitions

There are no similarities between the definitions in the WFD and those provided in the other directives (see Table A1, Appendix 1). The definitions within the WFD concentrate mainly on all aspects of 'water' as it is the 'object' of the directive. The public's involvement is emphasised in the directive, yet, interestingly, no definitions are provided for 'the public'. The EIA, SEA and

Public Participation directives, on the other hand, all share a common definition for the ‘public’ and ‘public concerned’.⁴ The Birds directive contains no definitions.

The Habitats directive’s list of definitions refers mainly to ‘conservation’ and ‘habitat’, which again is the object of the directive. Under the WFD definitions, ‘competent authority’ is listed, but, like the SEA directive, it is left to MSs to interpret what this means and who exactly the ‘competent authority’ will be.

The EIA and SEA directives both define their objects of assessment (‘project’ and ‘plans and programmes’ respectively). However, the definition of ‘project’ is relatively ‘simple’ or ‘stand-alone’ and concentrates on establishing the activities that constitute a project. One requirement of the EIA directive (introduced by the EIA Amendment Directive 97/11/EC) is that a form of development consent must be put in place for projects requiring EIA. In contrast, the definition of ‘plans and programmes’ (PPs) concentrates principally on the body preparing the PP and its mandate for doing so, rather than the content of the PP. ‘Content’ issues are addressed, at least in part, in Article 3 of the SEA directive which deals with scope, but to reach consideration of Article 3 a PP must already have satisfied the definition of ‘plans and programmes’ in Article 2 (Sheate et al., 2005).

2.4.5 General Obligations

All directives set out the general obligations placed upon MSs explicitly. The WFD, EIA and SEA directives all set out the obligations of MSs to ‘incorporate’/‘integrate’/‘apply’ the relevant requirements/rules of the directives into: ‘their territory’ (WFD, Art. 3[5]), and into ‘existing procedures’ (EIA, Art. 2[2] & SEA, Art. 4[2]). The EIA, Birds and Habitats directives all mention the ‘measures’ that MSs need to adopt/take. The Birds and Habitats directives share a common obligation in relation to ‘habitats’.

Plans and programmes are also mentioned in the obligations of the SEA and Public Participation directives, but the context in which they are used is different. In the SEA directive there is a requirement for ‘environmental assessment’ to be carried out ‘during the preparation of a plan or programme’ (Art. 4[1]), whereas under the Public Participation directive there is a requirement for the public to be given opportunities to participate in the ‘preparation and modification or review of the plans and programmes’ (Art. 2[2]).

2.4.6 Scope (Objects Requiring Mandatory Action)

The WFD requires that POMs (which should be specified in RBMPs) be applied within RBDs to ‘surface waters’, ‘groundwater’, and ‘protected areas’. This is specified in Article 4(1). Annex V lays out the provisions that need to be fulfilled when applying the POM. It is mandatory (Art. 6) for MSs to develop and maintain a register of protected areas, including areas designated under the Birds and Habitats directives (Annex IV).

The EIA and SEA directives set out categories of ‘objects’ that must be subject to mandatory assessment: the EIA directive in Article 4(1) and Annex I; the SEA directive in Article 3(2). The categories of project requiring mandatory assessment under the EIA directive, however, are much more specific (Annex I sets out 21 categories of projects), whereas the SEA directive instead describes criteria that must be met for mandatory SEA to be required. Consequently, there appears to be greater scope for uncertainty and/or interpretation as to what requires assessment under the SEA directive. The onus is much more on MSs to interpret the criteria and determine which PPs should require SEA, rather than relying on a more detailed list (Annex 1, EIA directive) (Sheate et al., 2005).

⁴ “‘the public’ means: one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups; “the public concerned” means: the public affected or likely to be affected by, or having an interest in, the environmental decision-making procedures referred to in Article 2(2); for the purposes of this definition, non-governmental organisations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest;”

Article 3(2)(b) of the SEA directive requires mandatory SEA for PPs requiring assessment pursuant to the Habitats directive (92/43/EC) (known as 'Article 6 assessment' or 'appropriate assessment' [AA]). There is no direct equivalent in the EIA directive,⁵ where mandatory EIA is linked to the type of project and not the area that will be affected (Sheate et al., 2005). The Birds directive specifies which 'species' must be subject to mandatory implementation of 'special conservation measures' (Art. 4[1] and Annex I). The Habitats directive is also specific in that in Article 4 it sets out a mandatory requirement for MSs to produce 'a list of sites which have specific native habitat types' (Annex I) including 'species relating to those sites' (Annex II). Article 4 also requires the mandatory designation of sites as 'special areas of conservation' (SACs).

2.4.7 Scope (Objects that Should be Screened)

As with objects requiring mandatory assessment, the SEA directive potentially leaves much greater uncertainty concerning the objects which should be screened to identify if assessment is required. However, even with the more detailed list of projects that require screening under the EIA directive (Annex II), ambiguities have arisen in relation to the definitions of some project types, e.g. what is meant by an 'urban development project' (Sheate et al., 2005).

The screening criteria in both the EIA and SEA directives (EIA, Annex III; SEA, Annex II) require consideration of the characteristics of the object of assessment, characteristics of the location/area likely to be affected and characteristics of potential impacts/effects (Sheate et al., 2005). The 'criteria for selecting sites eligible for identification as sites of community importance and designation as special areas of conservation' are laid out in Annex III of the Habitats directive. They also require consideration of the characteristics of the location/area of such sites, as well as the degree of conservation of the habitat, global

assessment of the value of the site and the size and density of the population of species on the site. The criteria relating to impacts/effects are similar in both the EIA and SEA directives. Most of the criteria are common to both directives. The only differences are that:

- The EIA directive refers to the 'complexity' of impacts whereas the SEA directive refers to 'the cumulative nature of the effects'.
- The SEA directive refers to risks to human health or the environment as an 'effect' characteristic whereas the EIA directive refers to 'the risk of accidents....' as a 'project' characteristic.⁶
- In general, the location/area criteria in the EIA directive are much more specific.
- Since the SEA directive is more recent, the EIA directive criteria do not acknowledge the SEA directive criteria.

2.4.8 Measures to be Adopted

All the directives (with the exception of the Public Participation directive) have requirements for 'measures' to be adopted/undertaken. In most directives the specific type or number of measures to be undertaken would appear to be left to the discretion of the MS, with terms such as the adoption of 'measures necessary' (WFD, Art. 4[1] and EIA directive, Art. 2[1]), establishment or implementation of 'the necessary ... measures' (WFD Art. 4[1] and Habitats directive, Arts 12[1] and 6[2]), undertaking 'requisite measures' (Birds and Habitats directives, (Arts 2, 3 and 5, and Arts 12 and 13 respectively), and those [measures] 'envisaged' (SEA directive, Art. 7[2], Annex I [g] and [i]), being used.

Under the WFD, MSs are specifically required to establish and implement a whole range of measures in relation to the protection of water. Not only do the environmental objectives (Art. 4) of the WFD include implementation of a

⁵ Annex III of the EIA directive does provide that areas designated under the Birds (79/409/EEC) and Habitats (92/43/EC) directives are criteria that need to be considered when screening Annex II projects, but these do not provide a trigger for mandatory assessment.

⁶ The five-year EIA report (CEC, 2003a) notes, 'Risk is dealt with in a wide variety of ways and at very different levels across the EU, partly in response to the variety of geographical, geological, climate and other conditions. Risk is a screening criterion in Annex III and risk assessments appear in many EIS, and yet for most Member States risk is seen as separate from the EIA process as it is often handled by control regimes to which the EIA Directive is not applied' (para 10, Summary of findings).

range of measures (to prevent deterioration, reduce pollution, prevent or limit input of pollutants, reverse any significant upward trend in the concentration of any pollutant), but Article 11 sets out the requirement for specific 'programmes of measures' that need to be complied with. The WFD shares some elements with both the EIA and SEA directives in terms of measures that relate to the mitigation of adverse effects/impacts. All three directives refer to measures that 'prevent or reduce' impacts/adverse effects. Measures to be adopted under the Birds and Habitats directives focus on the conservation and protection of species, while the Birds directive also includes measures relating to the maintenance/preservation of habitats (Art. 3).

2.4.9 Exemptions [see also 'Less stringent environmental objectives' s.2.4.22 below]

The WFD does not explicitly state that certain 'bodies of water' are exempt or excluded from its requirements, although it does refer to 'situations' where an MS would not be in 'breach of the requirements' (Art. 4[6]), namely 'natural causes' or 'force majeure' (however, this is only for temporary deterioration of status). Also, under Article 4(4) the deadline by which MSs are expected to achieve the objectives of the WFD (i.e. 15 years after the directive has entered into force) can be extended to allow for the 'phased achievement of the objectives for bodies of water, provided no further deterioration occurs in the status of the affected body of water'. Certain conditions are required to be met before such an extension can take place. Under Article 4(5) MSs can also choose to achieve 'less stringent environmental objectives' for particular bodies of water when 'so affected by human activity ... or their natural condition is such that the achievement of these objectives would be infeasible or disproportionately expensive'. Again, certain conditions must be met before this is allowed to happen.

Under the SEA directive, indirect 'exemptions' may arise as a result of different mandatory requirements for SEA applying in adjacent MSs, since the application of the directive depends upon the nature of plans and programmes produced. This could cause problems if the UK and Ireland apply SEA differently in Northern Ireland and the Republic of Ireland.

2.4.10 Assessment and Types of Effects to be Considered

The WFD, EIA, and the SEA directives all refer to 'significant effects' and 'effects on the environment', although in the case of the WFD they are referred to as 'significant adverse effects' (Art. 4[3]). However, it is worth noting that 'significant adverse effects' in the case of the WFD only relate to the designation by a MS of a body of surface water as artificial (AWB) or heavily modified (HMWB). In this context, the WFD refers to significant adverse effects on a number of areas, including the 'wider environment', 'navigation', 'port facilities', or 'recreation', etc, which are areas that may experience such effects.

Aside from the provisions of Article 4(3), the WFD is concerned with all effects that result in water bodies not achieving 'good status' by 2015. The RBD characterisation process (as outlined in Article 5) requires the collection and maintenance of 'information on the type and magnitude of the significant anthropogenic pressures to which the surface water bodies in each river basin district are liable to be subject' (Annex II, Section 1.4) and an 'assessment of the susceptibility of the surface water status of bodies to the pressures identified' (Annex II, Section 1.5). The Birds directive only mentions 'effects' in the context of the effects of marketing on the biological status of species listed (Art. 6[4]).

Both the EIA and SEA directives provide an explanation of the type of significant effects and also require effects on the environment to be identified and described. The EIA directive requires these to be assessed and the SEA directive evaluated. The SEA directive refers explicitly to 'synergistic effects', which are generally seen as a particular category of cumulative effects. Presumably, the explicit reference to synergistic effects (but not other forms of cumulative effects) is to prevent doubt.

The EIA directive refers explicitly to direct and any indirect effects, whereas there is no mention of this issue in the SEA directive (Sheate et al., 2005). Both the EIA and SEA directives require consideration of positive as well as negative effects. The Habitats directive (Art. 6[3]) refers to 'significant effect thereon' in relation to plans and projects affecting designated sites.

A key issue that emerges then from the textual analysis and the review of literature is that of applying environmental assessment, particularly SEA, to plans and programmes and even to projects (EIA) that are likely to occur under the WFD, Habitats and Birds directives, and the possible overlaps that may result. Looking specifically at the WFD, both plans and programmes are required to be produced: Article 11 requires the establishment of POMs and Article 13 requires the production of RBMPs. In addition, Article 13(5) states that RBMPs can be supplemented by 'more detailed programmes and management plans for sub-basins, sector, issue or water type'.

Would such plans and programmes then be subject to the requirements of the SEA directive? The SEA directive (Art. 3[2]) requires that environmental assessments be carried out on certain plans and programmes that are likely to have significant environmental effects. This includes those plans and programmes prepared in relation to water management. This would suggest that the provisions of the SEA directive would in fact apply to plans and programmes under the WFD. Moreover, under the SEA directive, plans and programmes not listed under Article 3(2), but which set the framework for future development consent, should be assessed by MSs for significant environmental effects, to which SEA should/should not be applied.



Table 2.1 Index of Articles in Figure 2.1 (see full report for full textual analysis of Articles)

Articles from the Water Framework Directive	Articles from the EIA Directive (as amended)	Articles from the SEA Directive	Articles from the Public Participation Directive	Articles from the Habitats Directive	Articles from the Birds Directive
<p>To EIA Directive:</p> <ul style="list-style-type: none"> Art. 4(5) – Environmental Objectives Art. 5 – RBD Characterisation Art. 11(3) – Programme of measures (POMs) Annex VI – Measures to be included in POMs <p>To SEA Directive:</p> <ul style="list-style-type: none"> Art. 11 – POMs Art. 13(1) & (5) – RBMPs <p>To Public Participation Directive:</p> <ul style="list-style-type: none"> Art. 14 – Public information & consultation Annex VII – Contents of RBMPs <p>To Habitats Directive:</p> <ul style="list-style-type: none"> Art. 4(c) – Environmental Objectives Art. 6 – Register of protected areas Art. 8(1) – Monitoring Art. 11(3)(a) – POMs Annex IV – Protected Areas: contents of register of protected areas (PAs) <p>To Birds Directive:</p> <ul style="list-style-type: none"> Art. 6 – Register of protected areas Art. 8(1) – Monitoring Art. 11(3)(a) – POMs Annex IV – Content of register of PAs 	<p>To WFD:</p> <ul style="list-style-type: none"> Annex I – Projects subject to mandatory EIA Annex II – Projects which may require EIA <p>To SEA Directive:</p> <ul style="list-style-type: none"> Art. 2 – Application of EIA and ‘another form of assessment’ <p>To Habitats Directive:</p> <ul style="list-style-type: none"> Annex III(2) – Screening: case by case examination selection criteria: location of projects <p>To Birds Directive:</p> <ul style="list-style-type: none"> Annex III(2) – Screening: case by case examination selection criteria: location of projects 	<p>To WFD:</p> <ul style="list-style-type: none"> Art. 3(2)(a) – Scoping: plans & programmes subject to mandatory SEA Art. 5(1) – Environmental report Art. 7 – Transboundary consultation Annex II(1) – Criteria to determine significance of effects <p>To EIA Directive:</p> <ul style="list-style-type: none"> Art. 3(2)(a) – Scoping: plans & programmes which set the framework for future development consent of projects Art. 11(1) – Relationship with other Community legislation Annex II – Criteria to determine significance of effects <p>To Public Participation Directive:</p> <ul style="list-style-type: none"> Art. 5 – Environmental report Art. 6 – Consultations Art. 7(2) – Transboundary consultations <p>To Habitats Directive:</p> <ul style="list-style-type: none"> Art. 3(2)(b) – Scoping: effects of plan & programmes on sites Annex I(d) – Content of environmental report <p>To Birds Directive:</p> <ul style="list-style-type: none"> Annex I(d) – As above 	<p>To WFD:</p> <ul style="list-style-type: none"> Art. 2(5) – Public participation concerning plans & programmes <p>To EIA Directive:</p> <ul style="list-style-type: none"> Art. 3 – Amendments to EIA Directive (85/337/EEC) <p>To SEA Directive:</p> <ul style="list-style-type: none"> Art. 2(5) – Public participation concerning plans & programmes 	<p>To EIA Directive:</p> <ul style="list-style-type: none"> Art. 6(3) – Plans or projects subject to appropriate assessment <p>To SEA Directive:</p> <ul style="list-style-type: none"> Art. 6(1) – Establishing conservation measures and appropriate management plans Art. 6(3) – Plans or projects subject to appropriate assessment <p>To Public Participation Directive:</p> <ul style="list-style-type: none"> Art. 6(3) – Plans or projects subject to appropriate assessment: if appropriate obtain opinion of general public before agreeing to plan or project Art. 22(a)&(c) – Supplementary provisions: re-introduction of species and re-establishment of favourable conservation status after proper consultation with public & promotion of education and general information <p>To Birds Directive:</p> <ul style="list-style-type: none"> Art. 3(1) – Conservation of natural habitats and habitats of species: inclusion of special protection areas in Natura 2000 Network Art. 7 – Amendments to Birds Directive: in relation to special conservation areas 	<p>To WFD:</p> <ul style="list-style-type: none"> Art. 4(2) – Protection of wetlands and wetlands of international importance <p>To Habitats Directive:</p> <ul style="list-style-type: none"> Art. 3 – The preservation, maintenance and re-establishment of a sufficient diversity and area of habitats for all species of bird Art. 4(4) – Avoidance of pollution or deterioration of habitats or any disturbances

The SEA directive provides certain criteria (Annex II) to assist in this process, which includes the 'relevance of the plan or programme for the implementation of Community legislation on the environment', for example, plans and programmes linked to water protection. This would appear to imply that both RBMPs and POMs, which are both directly relevant to water protection, would, if they were likely to have significant environmental effects, be subject to SEA. Alternatively, Article 3(2) could be used as a way of avoiding SEA for plans and programmes relating to water protection if the MS decided that the plan or programme had no significant effect.⁷

It is evident that both plans and programmes under the WFD could be subject to the requirements of the SEA directive, though confusion remains. In its guidance document on SEA (CEC, 2003b), the European Commission points out that it is not possible to 'state categorically whether or not the RBMP and the POM are within the scope of the SEA Directive' and that such assessments would have to be carried out on a case-by-case basis. ENTEC (2003) suggest that RBMPs might not be regarded as plans or programmes under the SEA directive as they will not be particularly detailed, but that POMs will require SEAs. As noted above, plans and programmes which are not specified under Article 3(2) of the directive could still require SEA if they set the framework for future development consent. Therefore, deciding whether RBMP and POMs set the framework for the future development consent of projects is another issue to consider (CEC, 2003b; Scott and Marsden, 2003).

Significantly, however, consultation is required 'in particular' on draft RBMPs (Art. 14) and when updating them, suggesting there is a clear 'planning' dimension to RBMPs which will influence POMs that come forward under them, i.e. will set the framework for future projects. It would seem odd for RBMPs not to be subject to SEA when consultation is required by the WFD. Importantly, SEA would provide a process through which RBMP consultation could be facilitated.

Assuming that either RBMPs or POMs (or both) will have to be subject to SEA in some form or another,⁸ would the 'additional' more detailed programmes and management plans, which may accompany the RBMP (WFD, Art. 13[5]) also be subject to SEA? In addition to the SEA already being carried out on the RBMP and/or POMs? If multiple SEAs were to be carried out under the WFD, there are likely to be numerous areas of overlap. The SEA directive does, however, refer to the need to avoid duplication of assessments (Preamble Para. 15 & Arts 4, 5 & 11, SEA directive) (Fry et al., 2002). ENTEC (2003) suggests that the SEA directive 'recognises that where plans and programmes form part of a hierarchy it is acceptable to undertake the SEA at a single level in order to avoid duplication'. However, legally this interpretation is rather questionable. While the directive seeks to avoid duplication of assessment, it does not refer to a single assessment. Legally, if a plan and a related programme each meet the SEA directive criteria then both should be subject to SEA; to do otherwise would potentially be in breach of the directive, unless a 'joint procedure' is established (meeting the SEA directive requirements fully in each case).

The key consideration is that the appropriate issues should be dealt with at the most appropriate level. Therefore, strategic alternatives should be considered at the highest level first, for example, and that assessment can then inform a lower-level assessment. Consequently, multiple assessments may still be needed, but they will be assessing different aspects, so that the elements and the nature of the assessment should not be duplicated.

2.4.11 Protected Areas

The extent to which sites have been identified and classified under the Birds and Habitats directive by MSs will have a bearing on the potential for interaction with the WFD. Article 4(2) of the WFD states that where there are multiple objectives relating to a given body of water (e.g.

⁷ While Article 3 (2) is ambiguous, it is generally considered that all plans listed probably do require SEA, i.e. are always likely to have significant effects on the environment (see further discussions in Sheate and Leinster, 2005; Tromans and Fuller, 2003).

⁸ The UK government in August 2006 (as this research was concluding) published guidance for England and Wales on the RBMP process, including the requirement for SEA of RBMPs (Defra/WAG, 2006).

environmental objectives relating to surface waters, groundwater or protected areas), the most stringent shall apply. If there are potential conflicts over designations, it may have a bearing on what is meant exactly by 'most stringent' (the issue of 'less stringent requirements' is dealt with in more detail later in s.2.4.22). If particular uses (under the WFD) require more stringent requirements, some authors suggest 'protected zones' should be established with higher objectives set within them, and that such zones should include those areas already protected by Community legislation – for example, sensitive designated areas and areas designated for the protection of habitats or species, including Natura 2000 sites (Kallis and Butler, 2001; Barreira and Kallis, 2003).

Article 6 of the WFD requires the establishment of a register of protected areas, which includes sites under the umbrella of Natura 2000 (in relation to the Birds and Habitats directives). The SEA directive on the other hand requires environmental protection measures (international, Community and MS level) to be identified and other plans and programmes to be considered. According to Griffiths (2002) the WFD allows for, but does not require, the designation of other areas for the protection of habitats and species. However, ENTEC (2003) suggest that MS sites should include 'sites of national importance such as Sites of Special Scientific Interest (SSSIs) [in the UK], which would not have to be identified as protected areas for the purposes of the WFD'. There is potential, therefore, for the WFD to also include such sites of national importance. BirdWatch Ireland (2002) considers that enhancing and restoring wetlands is key to achieving the WFD's environmental objectives, and emphasises that *all* protected wetland sites need to be included in the register of protected areas.

This includes sites registered under the 1971 Ramsar Convention, wetland areas designated as Natural Heritage Areas (NHAs) (of which Ireland has approximately 1,200 [Teagasc, undated]), in addition to Natura 2000 sites.

'Appropriate Assessment' (AA)

Under the Habitats directive (Arts 6[3] and 6[4]) plans or projects affecting a designated site may be subject to 'appropriate assessment' (AA). The directive is not explicit on the 'type' or 'form' that this AA should take. Although not specifically referred to within Article 6(3) it is possible that an assessment in the form of either an EIA or SEA may be applied (as both 'projects' and 'plans' are mentioned within the article). However, this is far from clear, although the European Court of Justice (ECJ) is beginning to establish case law in this area (see Section 5.3.1 below). While SEA looks at the broader aspects of the environment including biodiversity, flora, fauna etc. and their interrelationships, 'appropriate assessment' under the Habitats directive focuses on the integrity of designated sites (South West Ecological Surveys et al., 2004). However, South West Ecological Surveys et al. (2004) also point out that many of the provisions for plans and programmes under the Habitats directive 'overlap with the biodiversity analysis required by the SEA Directive, and both need to feed into appropriate assessment for projects'. It is also suggested that AA could be based on the methodology used for project EIA.

Fry et al. (2002) suggest that AA would 'focus on nature conservation interests of a site or groups of sites', but also go on to suggest that 'where plans are subject to both the SEA and Habitats Directives' that the AA, in this case, 'may form part of the SEA'. There are therefore potentially strong links between the Habitats, SEA and EIA directives. Possibilities exist for carrying out an integrated form of SEA and AA resulting in a combined procedure.

European Commission guidance on SEA, also quoted in South West Ecological Surveys et al. (2004, p. 70) states that:

... a combined procedure may be carried out provided it fulfils both the requirements of the SEA Directive and the Habitats Directive. In this case, the procedure has to include the procedural steps required by the SEA Directive, and the substantive test regarding the effect on protected sites required by the Habitats Directive.

This is self-evidently the case – if both directives apply, the requirements of both directives must be met. Consequently, Scott Wilson et al. (2006) suggest that in practice it may be better to view the AA process as somewhat separate from the SEA process. Further analysis of this issue is provided in Section 5.3 below.

2.4.12 Elements of the Environment to be Considered

The WFD specifies specific areas/activities, in the context of artificial or heavily modified (AWB/HMWB) water bodies, which may be adversely affected as a result of change to the hydromorphological characteristics of a body of surface water, for example the 'wider environment' (which could be left open to interpretation as to what exactly this relates to), 'port facilities', 'water storage activities', 'water regulation, flood protection, land drainage' and so on. However, the WFD is concerned with all effects that result in water bodies not achieving 'good status' by 2015.

The EIA directive requires consideration of effects on the factors listed in Art. 3, whereas the SEA directive requires consideration of 'effects on the environment' including the factors listed which, it might be argued, is a wider construction (Sheate et al., 2005). However, the EIA directive does have a comparable requirement in Paragraph 3 of Annex IV which provides that the environmental information should include 'A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population'.

The Birds directive refers only to birds, their eggs, nests and habitats, which could broadly be compared to the area

of biodiversity in the SEA directive and fauna and flora in both the EIA and SEA directives.

2.4.13 Consideration of Options/Reasonable Alternatives

Either options or alternatives are included in the WFD, EIA, SEA and Habitats directives. Under the WFD options are provided in terms of choosing the measures applicable to the RBD (Art. 11) and choosing the most cost-effective measures (Annex III[b]). The EIA directive (as amended by 97/11/EC) requires information to be provided about the main alternatives studied, including the consideration of environmental effects (Art. 5, Annex IV[2]). Under the SEA directive, Article 5(1) states explicitly that an environmental report should include 'reasonable alternatives taking into account the objectives and geographic scope of the plan or programme'. These alternatives need to be identified, described and evaluated. Some options, however, may have been foreclosed by higher-level plans (which also may not have undergone SEA).

2.4.14 Environmental Information/Report

2.4.14.1 Nature of the Provision of Information

It is interesting that all the directives (with the exception of the Public Participation directive, which contains no information in this regard) describe the nature of the provision of information in different ways:

- The WFD refers to the production of a RBMP which is required to contain specific information (Art. 15 of the WFD lists all MS reporting requirements including the RBMP).
- The EIA directive requires developers to supply specific information 'in an appropriate form'.
- The SEA directive specifies that an 'environmental report' needs to be prepared.
- The Birds directive requires a 'report on the implementation of national provisions'.
- The Habitats directive requires (a) 'a list of sites including information on each site' (b) 'a report on the derogations', and (c) 'a report on the implementation of measures taken'.

2.4.14.2 Baseline Information/Data Collection

Data collection is required in some form or other by all the directives (with the exception of the Public Participation directive):

- The WFD requires the gathering of data/baseline information as part of the characterisation process of the RBDs (Art. 5).
- The EIA and SEA directives require the gathering of data as part of the 'scoping' process, where a developer is required to describe aspects of the environment likely to be significantly affected by a proposed project, plan or programme (Art. 5, Annex IV, EIA & Art. 3, Annex II[2], SEA).
- The Birds directive would probably require the gathering of data in order to help classify SPAs (Art. 4).
- The Habitats directive requires the gathering of information (specified in Annex III), including the use of relevant scientific information, to help towards the selection of SACs (Art. 4).

2.4.14.3 Consultation

The issue of 'consultation' is an area for which the WFD, EIA and SEA directives all have provisions in terms of reporting. The WFD makes specific provision for a 'summary of public information and consultation measures taken, their results and the changes to the plan made as a consequence' (Annex VII[9]) to be included in the RBMP. In fact, the WFD is the only directive to explicitly require that information on public consultation is included (as part of the report requirements). The EIA and SEA directives have provisions relating to consultation on the scope of the environmental information, though neither mention consultation of the public. However, under the SEA directive this is a mandatory consultation requirement: the environmental authorities 'shall be consulted when deciding on the scope and level of detail of the information which must be included in the environmental report' (Art. 5[4]). Whereas under the EIA directive, scoping is discretionary – as a minimum MSs must implement a procedure whereby developers can ask competent authorities for an opinion on the information required (a

'scoping opinion'), in which case the competent authority must consult the developer and the environmental authorities before giving its opinion (Art. 5[2]). However, this article does go on to provide that MSs can make scoping mandatory. The EIA directive also states explicitly that the fact that an authority has given an opinion does not preclude it from subsequently requiring more information (Art. 5[2]). The SEA directive does not have a comparable provision (it might be construed that the same principle applies, although this issue is not discussed in the EU SEA Guidance (CEC, 2003b) (Sheate et al., 2005).

2.4.15 Public/Authority Involvement

The WFD places significant emphasis on consultation and public participation, particularly in relation to RBMPs. This is laid out in Article 14 of the WFD:

1. Member States shall encourage the active involvement of all interested parties in ... the production, review and updating of the river basin management plans. Member States shall ensure that, for each river basin district, they publish and make available for comment to the public, including users:

... a timetable and work programme for the production of the plan, including a statement of the consultation measures to be taken, at least three years before the beginning of the period to which the plan refers;

an interim overview of the significant water management issues identified in the river basin, at least two years before the beginning of the period to which the plan refers;

draft copies of the river basin management plan, at least one year before the beginning of the period to which the plan refers;

on request, access shall be given to background documents and information used for the development of the draft river basin management plan.

2. Member States shall allow *at least six months* to comment in writing *on those documents* in order to allow active involvement and consultation.'

(Emphasis added)

The involvement of stakeholders during the preparation of the RBMP would suggest that the provisions of the Aarhus Convention were being taken into consideration. It is possible that duplication of public-participation procedures could exist between the directives, especially between the WFD and SEA. However, if the consultation and public participation procedures within the different directives, namely WFD and SEA, can be integrated in any way, social, environmental and economic issues are more likely to be addressed. This will in turn 'form the basis of sustainable water management procedures' (Carter and Howe, 2005). A coordinated response to the public consultation requirements of both the WFD and SEA directives is considered possible (ENTEC, 2003) and, indeed, would seem to be desirable.

2.4.15.1 *Who to Involve*

All the directives (with the exception of the Birds directive) make provision in some form or other for public/authority input. Persons/bodies to be involved are either identified as the 'public' and/or 'authorities', with some variation between directives. The WFD refers to 'all interested parties' and the 'public' (Art. 14[1]) although it is not specific on who exactly the interested parties are and what constitutes the public (s.2.4.4). This is despite the fact that the WFD dedicates a whole article (Art. 2) to definitions (Barreira and Kallis, 2003).

It also specifies that 'Member States shall ensure ... the identification of the appropriate competent authority' (Art. 3[2]).

2.4.15.2 *Type of Input*

The WFD promotes 'involvement and consultation', particularly 'active involvement' (Art. 14[1]). The fact that 'active public involvement' is called for does not guarantee a 'fully and inclusive participatory process' (Kaika, 2003). Moreover, by using the term 'consultation' it implies the provision of information and the receiving of comments or objections on that information (O'Sullivan et al., 1999). Indeed, interested parties are invited to 'comment in writing' on particular documents, namely, the RBMP. There are no separate requirements to involve the public with regards to POMs summarised in the management plans (Janssen, 2004). Barreira and Kallis (2003) highlight the importance of public participation in improving decision-making, and the European Commission, in its online introduction to the WFD (CEC, 2005a), considers the role of citizens and citizen groups 'crucial'.

The EIA directive also refers to the provision of 'information and consultation' (Art. 6[3]) with opportunities provided for the public to 'express comments and opinion' on information provided by the developer. Emphasis is placed on 'early and effective opportunities to participate' in 'environmental decision-making procedures' (Art. 6[4]). The SEA directive has similar requirements with authorities and the public able to 'express their opinion' on draft plans and programmes. Again, emphasis is placed on 'early and effective' opportunities for involvement. When compared with the WFD, the SEA provisions for public participation are more general in nature as they apply to a broader range and diverse type of plans and programmes (CEC, 2003b). However, by meeting the requirements of both the WFD and SEA directives, it is possible that 'simultaneous and integrated consultation and public participation procedures during the preparation and assessment of RBMP' will occur (Carter and Howe, 2005).

The Public Participation directive focuses on ‘informing the public’ (Art. 2[2] [a] and [d]), but also highlights the need for ‘early and effective’ opportunities to participate (Art. 2[2]), namely when plans and programmes are being prepared or modified. Note that this directive uses the term ‘participate’ rather than ‘consult’, which implies a more interactive process with more direct involvement of the public in decision-making processes, resulting in a ‘two-way’ flow of information (O’Sullivan et al., 1999).

2.4.15.3 Timescale for Feedback

The WFD is quite specific in terms of the amount of time allocated for the receipt of comments from the public. Article 14(2) explicitly states that ‘at least six months’ be allocated for the receipt of written comments. The Habitats directive specifies a similar timeframe with regards consultation between MSs and the Commission on the comparing of scientific data, though here the consultation period should ‘not exceed six months’ (Art. 5[2]). The EIA and Public Participation directives are particularly vague in this regard, stating only that ‘reasonable time-frames’ be provided, leaving much discretion to individual MSs. The SEA directive does not mention any timeframes.

2.4.15.4 Involvement in a Transboundary Context

Only the EIA and SEA directives consider consultation in a transboundary context in any detail, although the WFD does require that appropriate arrangements be made where river basins cover the territory of more than one MS and where IRBDs are set up as a result (Art. 3). However, there is no specific mention of ‘consultation’ in this regard, but where RBDs extend into the territory of a non-EU MS, then ‘appropriate coordination’ is required to be established (Art. 3[5]). In this regard, therefore, the WFD appears to apply also to non-MSs whereas the EIA and SEA directives apply only to MSs.

2.4.16 Role of Competent Authorities

Article 3 of the WFD outlines the provisions for the ‘coordination of administrative arrangements within river basin districts’. Article 3(4) specifically calls for the coordination of the POMs for each RBD, while Article 3(5) specifies requirements for the ‘establishment of appropriate co-ordination’ with respect to IRBDs. The WFD, therefore, underlines coordination between competent authorities. Existing public authorities have been identified as ‘competent authorities’ for the purposes of the WFD in Ireland (in line with Art. 3[6]) and under the Irish Water Policy Regulations (S.I. No. 722/2003). These authorities are obliged to consult, coordinate and liaise with other public authorities, North and South, to support and facilitate coordinated implementation (DoEHLG, 2004a). The EIA and SEA directives require member states to identify competent authorities.

2.4.17 Decision-Making

Decision-making provisions are not specified within the WFD, although there is a requirement to ensure that ‘appropriate administrative arrangements’ are put in place (Art. 3[2]). Article 3(3) relates this to IRBDs only. The main difference between the decision-making provisions of the EIA and SEA directives is that the EIA directive requires the information, the consultation and transboundary consultation opinions to be ‘taken into account in the development consent procedure’. The SEA directive, on the other hand, requires the comparable information to be ‘taken into account during the preparation of the plan or programme and before its adoption or submission’.

2.4.18 Information on Decisions

Only the EIA and SEA directives provide detail on the type of information taken into account in reaching a decision on whether to grant or refuse development consent (for EIA) and when adopting a plan or programme (SEA). Once a decision has been made under the EIA directive there is a requirement for local authorities to 'inform the public' of the decision and make certain information available to them (Art. 9[1]), including the main reasons for the decision and information on mitigation measures. This information must also be forwarded to MSs affected (Art. 9[2]) if there are transboundary issues.

2.4.19 Access to Judicial Review Procedure (EIA Directive Only)

The Public Participation directive introduces a new provision to the EIA directive on access to judicial review. This has no equivalent in the SEA directive. The practical differences between the two directives on this issue will presumably depend on MSs' existing review procedures.

2.4.20 Monitoring

The WFD, SEA and Habitats directives all make provisions for monitoring, and possibilities for duplication exist, although Article 10(2) of the SEA directive goes some way towards avoiding this. The WFD is quite specific in its requirements for monitoring (Art. 8) and requires a 'map of the monitoring networks ... and a presentation in map form of the results of the monitoring programmes' (Annex VII[4]). Art. 8(1) requires a specific 'programme for the monitoring of water status' (Art. 8[1]) to be established. There may be more than one programme, as a separate programme is required for surface water, groundwater and protected areas. Such programmes are established so that a 'coherent and comprehensive overview of water status within each river basin district' is provided. It also requires 'details ... of the actual monitoring data gathered' (Annex VII[11]). Detailed requirements and the type of information to be monitored are laid out explicitly in Annex V.

Unlike the EIA directive, the SEA directive also makes explicit the need for monitoring of the 'significant environmental effects of the implementations of plans and programmes' (Art. 10[1]) and the environmental report is required to include a 'description of measures envisaged concerning monitoring' (Annex I[i]). Although no detailed information is provided on how such monitoring will take place, it is seen as necessary for the identification of 'unforeseen adverse effects' and for the purpose of mitigation ('remediation'). Interestingly, Article 10(2) does mention the use of 'existing monitoring arrangements' if appropriate, in order to avoid duplication. The Habitats directive does not specify that 'monitoring' is required; instead, it uses the term 'surveillance'. Article 11 requires 'surveillance of the conservation status of the natural habitats and species'. Again, no detail is provided on how exactly the surveillance should be carried out. There is also a requirement to 'establish a system to monitor the incidental capture and killing of the animal species' (Art. 12). Monitoring and evaluation in relation to management plans under the requirements of the Habitats directive are considered important nonetheless, particularly in helping to determine whether a plan is successful (Janssen, 2004).

2.4.21 Environmental Quality Standards

Only the WFD and SEA directive specifically mention environmental quality standards. The WFD is explicit in its requirements for environmental quality standards to be set in relation to pollution prevention and control (Preamble 40) and for certain pollutants (Preamble 42) (in relation to the pollution of water). If the objectives of the WFD, as laid out in Article 4, are unlikely to be met (as established through monitoring) MSs are required, 'as appropriate', to establish stricter environmental quality standards. Under the SEA directive, 'exceeded' environmental quality standards may be referred to when establishing whether a plan or programme is likely to have significant environmental effects (Annex II [2]).

2.4.22 'Less Stringent Environmental Objectives'

Under the provisions of Article 4 of the WFD there are a number of possible exemptions allowed from the requirement to meet overall environmental objectives. This includes exemption from the need to achieve 'good status' and the timeframe to be applied (Jones, 2001; Grimeaud, 2004; Fairley et al., 2002). In fact, the deadline for meeting environmental objectives can be extended by up to 12 years, which is considerable and may have significant consequences regarding the state of specific bodies of water over this timeframe. Less stringent environmental objectives may be set for specific bodies of water depending on a number of conditions: either it is not feasible to achieve 'good status' or costs are disproportionately expensive due to the effects of 'human activity or natural conditions'; or there is temporary deterioration in status, which is not in breach of the directive but certain conditions are not being met (Jones, 2001; Foundation for Water Research, 2005; Kallis and Butler, 2001).

2.4.23 Pollution Prevention and Control

The WFD is specific in its requirements to reduce and eliminate pollution of groundwater and surface waters. Strategies relating directly to the prevention and control of pollution are laid out in Articles 16 and 17 of the directive. The Birds directive is the only other directive to mention 'pollution'. The last sentence of Article 4 requires MSs to 'strive to avoid pollution or deterioration of habitats'. Article 2 (a) of the EIA directive allows for MSs to provide a single procedure to fulfil the requirements of the EIA directive and Directive 96/61/EC on IPPC.

2.4.24 'Human Activity'

An interesting area within the text of the WFD (Art. 5[1]) is the issue of 'human activity' and possible impacts on all water bodies in a RBD. Annex II, Section 1.4 lists potential significant anthropogenic pressures that should be assessed in each RBD. What actually constitutes a 'human activity' is not defined clearly within the directive. Grimeaud (2004) points out that MSs will need to 'identify the adverse anthropogenic pressures in terms of, among

other things ... significant water abstractions ...'. Since such significant water-abstraction projects are likely to fall within the requirements of the EIA directive, this poses the question as to whether the review of such human activities under the WFD would coincide with EIA being undertaken for this particular activity, resulting in an overlap. Another possible area of interaction may result where information obtained for an EIA on, for example, the possible impacts from a proposed sewerage treatment works, could be fed into the river-basin characterisation process in terms of analysis of human impacts.

2.4.25 Relationship with other Community Legislation⁹

There are a number of provisions made within the WFD with regard to its relationship with other Community legislation, the most obvious being the Habitats and Birds directives. Article 6(1) explicitly states that a register(s) is required by MSs 'of all areas lying within each river basin district which have been designated as requiring special protection under specific Community legislation...'. This specific legislation is listed in Annex IV, with Part 1(v) referring directly to Directives 92/43/EEC and 79/409/EEC. The Birds and Habitats directives are mentioned again, along with the EIA directive, in relation to the 'programme of measures'. Article 11(3[a]) sets out the requirements for 'basic measures' which are 'required to implement Community legislation for the protection of water, including measures required under the legislation ... in part A of Annex VI': Part A(ii) for the Birds directive; Part A(v) for the EIA directive; and Part A(x) for the Habitats directive. 'Other Community legislation' is also mentioned in Article 4(8) and (9) in the context of applying the provisions laid out in Article 4 on 'environmental objectives' and ensuring that achievement of such objectives is 'consistent with the implementation of other Community environmental legislation' and that provisions guarantee 'at least the same level of protection as the existing Community legislation'.

⁹ Note: only legislation specific to this study is considered here.

The provisions in the SEA directive on the relationship with other Community legislation are broader than those in the EIA directive (Sheate et al., 2005). Article 11(1) of the SEA directive provides that SEAs under the directive are without prejudice to (i.e. do not replace) EIA or other assessments required by EC legislation. Article 11(2) provides that MSs can establish coordinated or joint procedures for SEA and assessments arising from any other Community legislation (Art. 11[2]). Article 11(3) provides that for plans and programmes co-financed by the EC, SEA must be carried out in conformity with the specific provisions in Community legislation – i.e. it explicitly states one of the possible instances of dual obligations for assessment covered generally in Articles 11(1) and (2). Section 9 of the EU SEA guidance discusses the relationship of the SEA directive with other Community legislation in more detail. In contrast, the EIA directive only explicitly mentions establishing a single procedure for EIA and one other particular form of assessment arising from EC legislation (IPPC).

2.4.26 Information, Reporting and Review

The WFD has quite an extensive requirement on information exchange, requiring a Commission report on progress in implementing the directive (the report is also required to include other specific information other than progress) at least 12 years after the directive's date of entry into force, and another such report every 6 years after that (Art. 18[1]). Another report, 'on progress in implementation based on the summary reports' submitted by MSs, is also required to be produced by the Commission at least every two years after 'dates referred to in Articles 5 and 8' (Art. 18[3]). Once this report has been published the Commission is also required (within three years) to publish an interim report 'describing progress in implementation' based on interim reports submitted by MSs. In addition to the Commission's reporting requirements, MSs are also required to report to the Commission. Article 15(1) requires MSs to send copies

of RBMPs and any updates to the Commission and any other MS concerned within three months of their publication. In addition, MSs are required to submit 'summary reports' (Art. 15[2]) of RBD characterisation and monitoring programmes. An interim report 'describing progress in the implementation of the planning programme of measures' is also required to be submitted to the Commission within three years of the publication of the RBMP (Art. 15[3]).

Both the EIA and SEA directives require a Commission report on the effectiveness of the directive five years after implementation and for the Commission to make proposals (Art. 11[4], EIA directive and 12(3), SEA directive). The Birds directive requires the Commission to prepare a composite report, every three years, on the implementation of national provisions based on similar reports submitted by MSs to the Commission (Art. 12). Article 17 of the Habitats directive requires a similar composite report from the Commission every six years. In addition, Article 16 of the Habitats directive requires MSs to forward to the Commission every two years a report on derogations made to specific protection measures.

2.5 Relevant Case Law

An overview of the most relevant case law was undertaken, but is not reported in this synthesis report (see full final report for details, <http://www.epa.ie/downloads/pubs.research/water>).

Linehan (2005) identifies a number of relevant cases particularly in relation to the application of environmental assessment under the Habitats and Birds directives, some of which were drawn upon, while others were summarised from the ECJ judgments directly, especially the most recent cases. The purpose of this review was to provide context for further analysis and discussion in light of the case studies. It was not intended to cover all key cases for all directives.

3 Stakeholder Survey and Selection of Case Studies

Survey Approach

Task 2 (identification of situations where overlaps are possible) involved contacting a number of stakeholders (59 in total) who are either directly/indirectly involved/interested in the WFD process in Ireland. These stakeholders included government officials, WFD practitioners and academics.

Initial contact was made via a short email survey designed to gather further information on key issues of concern about overlaps and linkages between the directives, and to help in identifying potential case studies for further detailed investigation. The survey included three questions:

- Any *issues of concern* regarding the relationship of the WFD with areas such as the application of environmental assessment (EIA and/or SEA), public involvement, or protected areas?
- Any *examples of overlaps* between these directives, as applied within RBDs, which are considered to be important?
- Any *case study examples*, which illustrate potential overlaps within individual RBDs?

Twenty-one direct responses were received, plus an additional five respondents who provided further information. The results of the survey largely supported the findings from the textual analysis and the literature review, but also provided some tangible examples of where the overlaps and any potential problems might arise. Table 3.1 below summarises the key issues identified from the survey respondents (further details of respondents can be found in the full final report).

In addition, the survey allowed the identification of a number of potential case studies and a shortlist for selection in discussion with the steering group to be drawn up. Given the stage of implementation of the WFD, and the complicated interactions between the directives, three case studies were selected (Greater Dublin Water Supply, Lough Corrib, and IRBDs), each with the potential to highlight different sets of interactions between the WFD and the other directives. These are summarised in Chapter 4 below.

Table 3.1 Key issues identified by stakeholder email survey

<ul style="list-style-type: none"> • Confusion of the public over the different consultation processes likely to occur. • Availability of resources for better public consultation; • Difficulty of engaging the public. • Sectoral interests likely to succeed in generating a negative image for WFD implementation. • Need for 'review' of the RBMP process following adoption. • Confusion over hierarchy of plans and programmes of measures. • Integration of other plans e.g. development plans with the RBMP. • Consideration of alternatives or lack of. • How SEA will work within the WFD process. • Possibility that preparation of RBMPs will mirror quite closely the SEA process in preparing an environmental report – cutting out duplicity and waste of resources. • Restriction of protected areas list to European-designated sites – sites of regional/local interests could be ignored as a result. • Possible use of same consultants in both the WFD and SEA 	<ul style="list-style-type: none"> processes in terms of preparation of environmental reports. • Still evolving SEA process. • Considerable sharing of resources between directives. • Majority of existing legislation relates to human health, while WFD is largely focused on environmental issues – this could lead to misconception and result in more stringent standards than currently exist and debate during public participation. • Lack of sites specifically designated to waterway birds. • Lack of appropriate long-term administrative structures for comprehensive management of water resources i.e. beyond the life of current RBD management projects. • All the requirements flowing from different directives, resulting in bulky documents and duplication of information. Especially in relation to environmental impact statements with lack of clarity and public unable to interpret information.
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4 Case studies of Interaction between the WFD and other Directives

4.1 Case Study 1: Dublin Region Water Supply Major Source Development Project

4.1.1 Background

The development of sustainable water resources, particularly in the Dublin region, is recognised as presenting an enormous challenge, in which the government is investing €1 billion (Institution of Engineers of Ireland, 2005). The 'Greater Dublin Water Supply Strategic Study', commissioned in 1995 by the Department of the Environment (now the Department of Environment, Heritage and Local Government [DoEHLG]) and completed in 1996 looked at the demand for and supply of water in the greater Dublin region (Enfo, undated [a]). The objective of the study was to establish a water-supply 'master plan' for the greater Dublin region over a 20-year period. The study examined the potential to develop existing main sources of water further, and also the potential for development of new sources, including the River Shannon. It was recognised that sources furthest away from Dublin would incur high costs and involve various environmental issues (Kildare County Council, undated).

The Dublin Region Water Supply Major Source Development Project aims to provide an additional 300 million litres of water per day to the Greater Dublin Water Supply Area within approximately ten years (Ryan, pers. comm., 2006). In 2005 the DoEHLG requested Dublin City Council to procure the expertise of a service provider (in this case a consultancy) to carry out a feasibility study and preliminary report for the project, with three possible options for new sources of water: (i) River Shannon with abstractions from Lough Ree; (ii) River Barrow/Slaney in a conjunctive use with the Poulaphouca Reservoir (later

dropped as unfeasible); and (iii) desalination in the Irish Sea (Dublin City Council, undated). The Feasibility Study (which includes the development strategy) aims to identify and assess these source options, which will be followed by a preliminary report (due to be submitted to the DoEHLG by end of November 2007), which will in turn recommend a major new water source (Ryan, pers. comm., 2006).

It was determined that the development of a major new water source for Dublin i.e. the development strategy, could be considered a Strategic Water Management plan or programme under the requirements of the SEA directive and regulations, so it was decided that an SEA would be carried out on the draft feasibility study (of the two remaining options). The SEA process started in January 2006 and was completed in July 2006. The environmental report (ER) was published in May 2006 (close to the end of this research). It is likely that the any feasible option would also require an EIA. The River Shannon abstraction project, for example, would entail water being abstracted from Lough Ree on the River Shannon and brought across via a pipeline to the Greater Dublin Water Supply Area, and include the development of a water-storage reservoir, pumping stations and 80 miles of transmission infrastructure. However, a solution is unlikely to be completed until 2016.

4.1.2 Relevant Links between Directives

In this case study the primary focus is on the possible links between the WFD and the EIA and SEA directives. Discussion of the key issues in relation to the various linkages is provided. Issues relating to public/stakeholder participation are also examined and the issue of 'appropriate assessment' under the Habitats directive touched on.

4.1.3 Interaction with Development Plans

One of the requirements resulting from the Dublin Water Supply development strategy process is that once the DoEHLG has approved the 'feasibility study', local authorities affected by the proposed development will be required to adopt the study formally (including the preferred option) and incorporate it into their development plans, local area plans and other relevant plans or programmes. As Sanitary (Local) Authorities are responsible for water provision in their area (under the Public Health [Ireland] Act 1878), it is likely that some reference will already have been made, within existing plans, for the need to increase water supply services in order to meet demand. Part II, Section 10(2)(b) of the Planning and Development Act 2000 requires that objectives relating to 'the provision or facilitation of the provision of infrastructure including ... water supplies' be included in a development plan. As the need to supply water to the Greater Dublin Area was identified as early as 1995, it is likely that most local authorities will have already taken this into consideration (although not likely in much detail given the number of options being considered). However, as the abstraction of water from Lough Ree on the River Shannon would be quite a substantial project, there is a possibility that the incorporation of the proposed development would lead to substantial changes or 'variations' of relevant (county) development plans (CDPs), which would subsequently need to be amended.

Article 7 of the Planning and Development (SEA) Regulations 2004 requires a local (planning) authority to consider whether variations to a development plan are likely to have significant effects on the environment. The criteria to be taken into consideration when making this decision includes, among others:

the degree to which the plan sets the framework for projects and other activities ... the degree to which the plan influences other plans, including those in a hierarchy ... the relevance of the plan for the

implementation of European Union legislation on the environment (e.g. plans linked to waste-management or water protection) ... the effects on areas or landscape which have a recognised national, European Union or international protection status ... (Schedule 2A)

Figure 4.1 below illustrates possible linkages/overlaps once the WFD has been implemented fully, and a similar development project proposed within an RBD. In this 'future scenario' the basic WFD process is provided, including key stages. A number of assumptions are made for this scenario:

- Objectives within RBMPs are incorporated in CDPs.
- The main elements of the WFD process are repeated every six years in terms of review and subsequent revision.
- Development plans are produced every six years.

4.1.4 Conclusions

This case illustrates the effects that a development strategy may have on the implementation of the WFD and the implications that both processes may have on the planning process in general. A number of conclusions can be drawn:

- The 'preferred option' resulting from the development strategy will need to be adopted by relevant authorities and incorporated into CDPs. 'Variations'/revision of CDPS may result. An SEA of revised plans may be required.
- Regional planning guidelines (RPGs) may also need to be revised, to take account of the 'preferred option' before local planning authorities can adopt and incorporate the 'preferred option' into CDPs. SEA may be required for the revised RPGs. Development plans only have to 'have regard' to the RPGs and the fact that the 'preferred option' is not referred to in the RPGs would have no legal significance for the development plans (Scannell, pers. comm., 2006; Scannell, 2005).

- Although not a statutory requirement, local planning authorities may be influenced to incorporate the provisions of the RBMP (i.e. objectives and measures) into CDPs. Subsequent revisions to development plans may result in the need for an SEA of the revised plan. It is likely that incorporation of RBMP objectives/measures would coincide with the review and subsequent development of new development plans for each authority, which would help avoid the need for two separate SEAs (i.e. one SEA for 'variations' to the plan and one SEA for a 'new' plan).
- AA of the two options may be required under provisions of the Habitats directive. However, it may be more appropriate that this takes place at the project level when EIA is being undertaken of the preferred option.
- Baseline data from SEA and RBMP processes may inform EIA baseline for the proposed development. Information on impacts identified during EIA may

inform future WFD characterisation processes. Monitoring data from the development project may help inform future RBMPs and POMs. Similarly, monitoring data from the WFD process may be used to inform future EIAs and SEAs, therefore helping to avoid duplication.

- Alternatives in SEA could be used to assess whether environmental objectives of the RBD are being met. The SEA would help assess whether measures being used are effective in achieving the overall objectives of the river basin management process and provide a focus for public participation in the evaluation of alternatives.
- Consultations are likely to take place for each process i.e. WFD implementation and development strategy, but because of timing it is unlikely that any direct overlaps will occur between the processes. Some key stakeholders are likely to be involved in both processes.

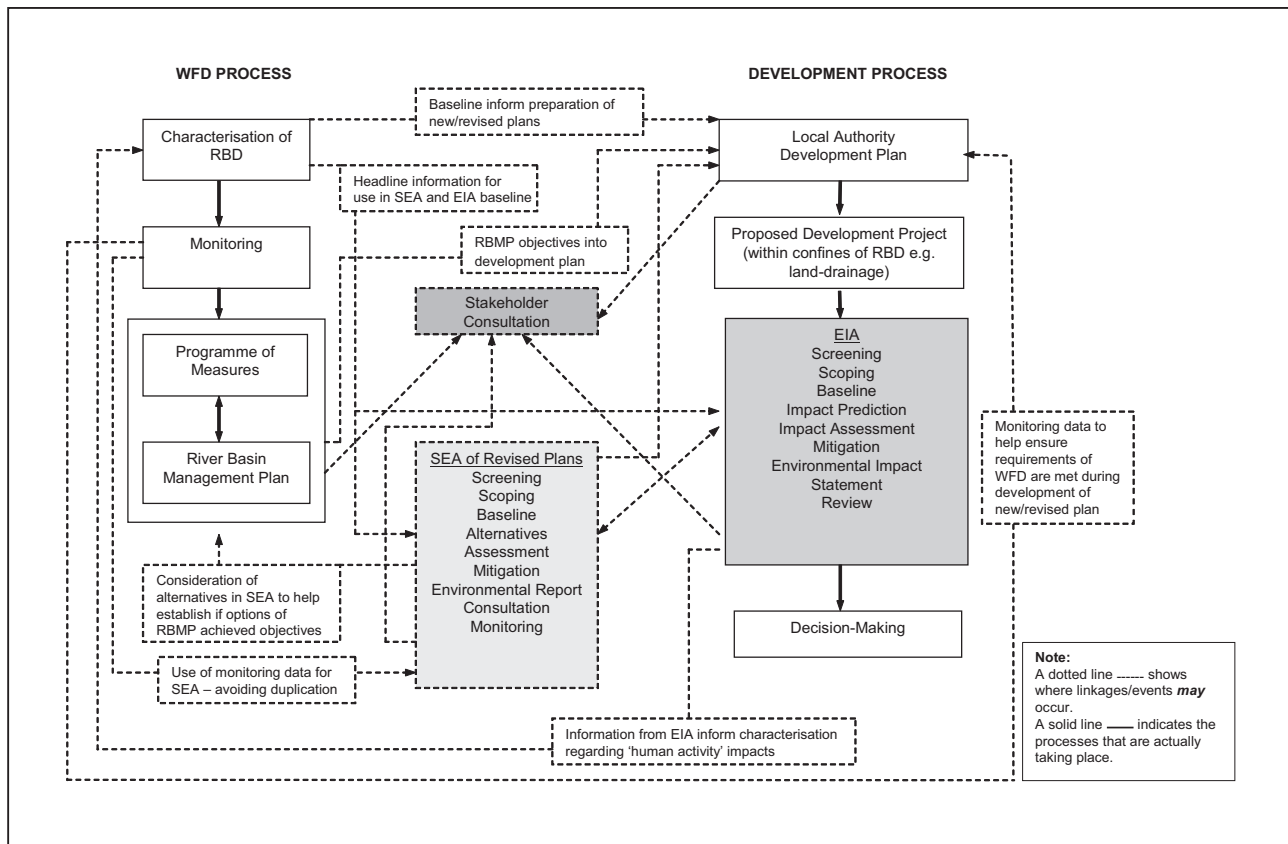


Figure 4.1: Possible linkages/overlaps following implementation of WFD

Information from RBD characterisation, particularly in relation to 'human activity' and associated impacts, could be used to inform local authority development plans, SEA and EIA baseline. Information from environmental impact statements (for proposed projects or 'activities') could be useful for informing RBD characterisation.

- EIA may be required for projects resulting from RBMPs and also from CDPs. Duplication of assessment could possibly be avoided if objectives relating to RBMPs were incorporated into CDPs.
- Information from EIAs, on impacts resulting from activities such as water-abstraction projects, could be used to inform any future assessments of 'human activity' for characterisation processes under the WFD, the results of which would be fed into revised RBMPs and POMs. Relevant measures from the EIA process relating to specific bodies of water could be incorporated into the production of draft POMs. Such measures may help to achieve specific objectives under the WFD.

4.2 Case Study 2: Lough Corrib

4.2.1 Background

Lough Corrib is the second largest lake in Ireland. Situated north of Galway city, on the west coast, the lough, which falls within the boundaries of the Western River Basin District (WRBD), was selected as a good example to illustrate possible interactions between the WFD and the Birds and Habitats directives in particular.

Lough Corrib is very important for tourism and angling. Galway County Development Plan (Galway County Council, undated, p. 76) highlights that the lough is 'one of the most important wild fisheries in Europe', attracting much in the way of tourism. The plan stresses the importance of the lough as a habitat. Angling tourism is considered a primary water-based tourism product on the lake, and extensive angling development programmes have been undertaken in the past (Ireland West Tourism, 2002). According to the Western Regional Fisheries Board (2004), a programme of fishery development continues for the Corrib system, with the

objective of maintaining wild brown trout and salmon for Lough Corrib. The lough is the only designated¹⁰ 'salmonid'¹¹ lake in Ireland. Water-quality standards for salmonid fishery waters need to be very stringent owing to the highly sensitive nature of salmonid fish to water pollutants (Enfo, undated [b]). The Corrib development programme has included such issues as water-quality management and surveys of all rivers and streams in the catchments (Western Regional Fisheries Board, 2004).

The importance of Lough Corrib for its rich flora, fauna and habitat type is reflected in its designation as a special protection area (SPA) under the requirements of the Birds directive, as a candidate¹² special area of conservation (cSAC) under the requirements of the Habitats directive (because it is currently classed as a 'candidate' site does not mean that the site is given any less protection than a SAC) (O'Connor, pers. comm., 2006). It is also a proposed natural heritage area (pNHA).¹³ Under the Habitats directive the lough has been selected for the conservation of 13 Annex I habitats (of which six are priority types), and seven Annex II species, while under the Birds directive it has been selected for the conservation of 11 Annex I bird species (Galway City Council, 2004). The lough is the only SPA within the WRBD to qualify for international importance for the overall number of wintering waterfowl (WRBD, undated). Overall, the lough supports in excess of 20,000 waterfowl and is considered one of the top ornithological sites in Ireland (NPWS, 2004). Another important species is the fresh water pearl mussel, *Margaritifera margaritifera*, which is highly sensitive to pollution. This pearl mussel is protected in Ireland under the 1976 Wildlife Act and is also listed under the Habitats directive. In addition, *Margaritifera margaritifera* is listed on the Red Data List¹⁴ as 'endangered' (Working Group on Characterisation and Risk Assessment, 2005; NPWS, 2004).

¹⁰ Designated under the European Communities (Quality of Salmonid Waters) Regulations 1998 (S.I. No. 293/1988).

¹¹ 'Salmonid' refers to game fisheries, as opposed to coarse ('cyprinid') fisheries.

¹² Candidate SACs are sites awaiting adoption by the European Commission.

¹³ Designated under the requirements of the Wildlife Amendment Act (2000).

¹⁴ The Red Data List is a list compiled by the International Union for Conservation of Nature and Natural Resources (IUCN).

The lough is also an important water supply for east Galway and Galway city, whose populations are increasing rapidly (Ní Chionna, pers. comm., 2006). In fact, half the population of the county of Galway depends on the Lough for its domestic water supply (Galway County Council, undated). There is evidence to suggest that the surface water channels for Lough Corrib and catchment floodplains 'have been extensively modified hydrologically by drainage schemes and that water quality is also problematic for the conservation areas of the sites' (WRBD, undated, p. 11). The WRBD (undated, p. 12) also states that 'existing drainage schemes, in the ... Corrib catchment, appear to have modified a number of turlough¹⁵ habitats'.

4.2.2 *Interaction with the Birds and Habitats Directives*

The links between the WFD, Birds and Habitats directives and others are illustrated in Figure 4.2. Italicised text within the flow diagram represents elements contained within the European Commission (Natural Habitats) Regulations 1997. Various issues are identified, and where appropriate, cross-referencing is made to Case Study 1. The issues considered are not unique to Lough Corrib and could be applied to any water body designated under the Birds and Habitats directives.

4.2.3 *Conclusions*

The scenario examined (Figure 4.2) presents two processes: (i) the WFD process, as though it has already been implemented, and (ii) the conservation process, which would occur ordinarily under the provisions of the Birds and Habitats directives. A number of issues concerning the implications that each process has on the other can be summarised as follows:

- Where conservation objectives already exist for a protected area, it may be possible to incorporate these into the WFD process, therefore avoiding duplication. The main issue centres on whether the objectives being set are the most stringent. It may be necessary, for the purposes of achieving the overall objectives of the WFD, to develop new more 'stringent' objectives if existing

objectives are not considered stringent enough in terms of protecting the ecological integrity of the designated site (this would apply to aquatic-based sites).

- Stringent conservation measures as established under the Habitats directive, for the protection of water-based birds, habitats and species, are thought essential in terms of helping towards the achievement of 'good ecological status' under the WFD. Such measures are likely to be incorporated into the WFD process (Art. 4[1][c]) and established in the POMs for the RBD. Where specific water bodies are affected by 'human activities', 'less stringent environmental objectives' may be set providing, inter alia, the highest status possible is achieved (not entailing disproportionate cost) and there is no further deterioration (Art. 5).
- Conservation measures for Lough Corrib should be incorporated into relevant county development plans (CDPs). There could be overlap if the same measures were included in POMs/RBMPs, which should also be incorporated into CDPs. Much depends on the timing of the different processes, but most up-to-date measures should be incorporated into CDPs.
- Monitoring in relation to aquatic habitats, undertaken as part of the RBMP process, could be used to strengthen surveillance requirements under the Habitats directive and to inform any waterways birds surveys/monitoring being undertaken.
- Monitoring data on the impacts of certain developments on water quality and protected areas could be used to inform future POMs/RBMPs as well as informing AAs carried out under the requirements of Article 6 of the Habitats directive.
- Biological/ecological data gathered during RBD characterisation could be used to inform the screening process in EIA in terms of providing information on the sensitivity of the proposed site and absorption capacity of the natural environment in relation to protected areas. Data on habitats and species under the Birds and Habitats directives could be used to inform EIA baseline evaluation, which may subsequently influence impacts monitoring (IM) and improve mitigation measures.

¹⁵ Turloughs are habitats unique to Ireland. They are temporary lakes that flood with changes in groundwater.

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- The WFD is reliant on geographical information systems (GIS) for data mapping, but a lack of adequate/suitable baseline data and digitised habitat maps and species-distribution maps may result in some important habitats/species being omitted from the RBMP process.
- There is a possibility that small-scale 'activities' may be overlooked in the RBMP process in terms of their effects on water quality and ultimately on biodiversity. 'Cumulative effects' of small-scale initiatives (for those developments already in existence and those likely to take place in the future) need to be considered to ensure accurate assessment of water quality and ensure that the most stringent objectives are set.
- Plans and projects which result from the development process or WFD process may require an AA (under the provisions of Art. 6[3] of the Habitats directive) depending on whether they are likely to affect the integrity of the designated site.
- If run in parallel with SEA, AA should be undertaken during the plan-making process i.e. for proposed plans. If carried out in this way the SEA process itself, for example during scoping, may be used to screen out the need for a formal AA if the SEA process is able to influence the draft plan to the extent that it will not affect the integrity of a designated site. There may, however, be a situation where a POM/RBMP has been published, for which an SEA has already been carried out, but since its publication new site designations have been made (under the provisions of the Habitats directives). If new SPAs or SACs are designated, the already published POM/RBMP may affect the integrity of the site and would therefore be subject to AA under the provisions of Article 6(3) of the Habitats directive. In this case, additional assessment would need to be undertaken, but information from existing SEAs could be used to inform this process, thereby avoiding duplication of effort.

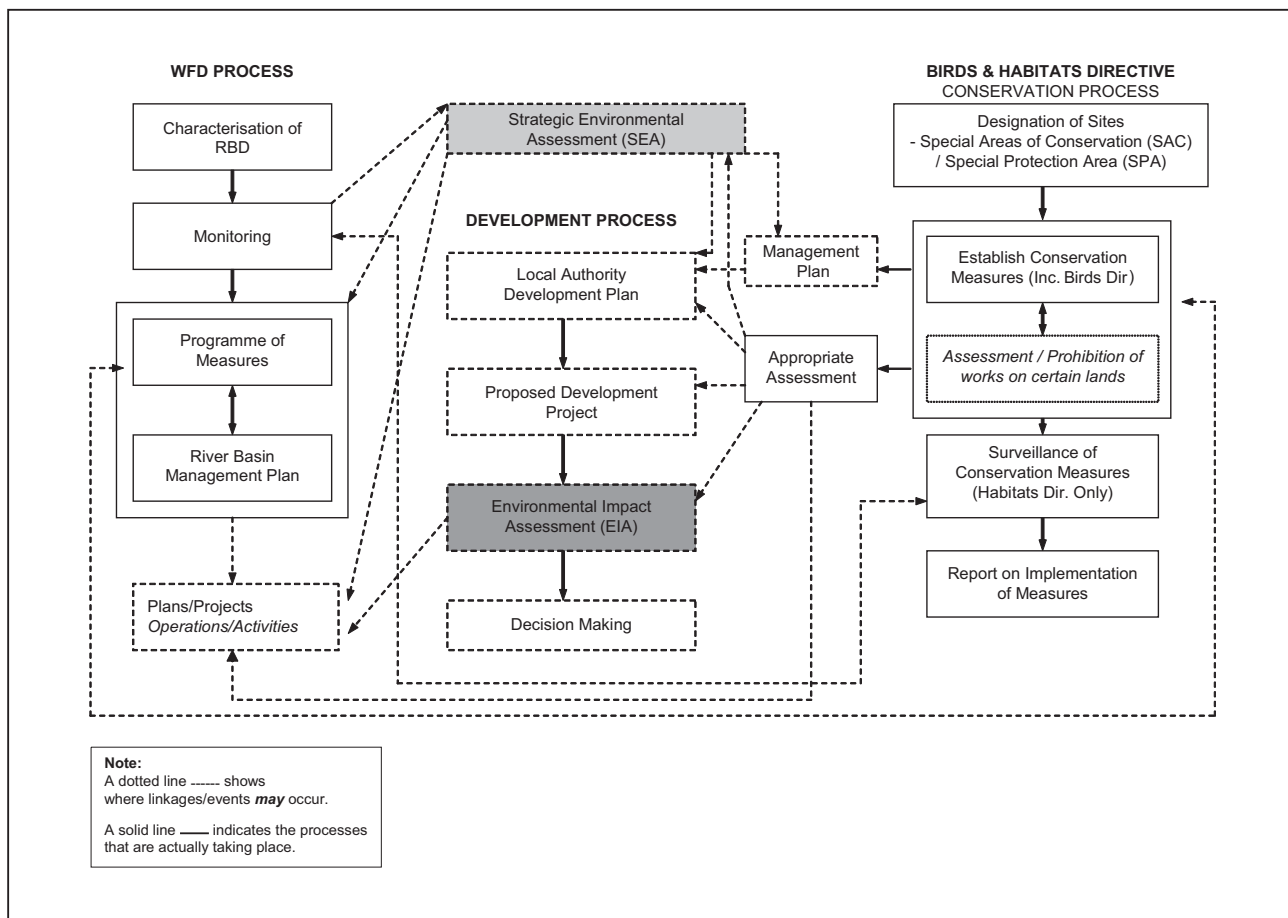


Figure 4.2: Possible linkages between the WFD and the Birds and Habitats directives

4.3 Case Study 3: International River Basin Districts – NS-SHARE Project

4.3.1 Background

The Neagh Bann RBD (NBIRBD) and North Western RBD (NWIRBD) are both designated as IRBDs under the provisions of the WFD (Art. 3[3]). These RBDs cross over between the Republic of Ireland and Northern Ireland and were chosen as a case study to help illustrate the links between various directives in relation to transboundary consultations and coordination of the different bodies involved. Northern Ireland also contains the North Eastern RBD (an RBD with no international borders) and the Shannon IRBD (SIRBD), but these RBDs are not considered in the context of this particular study.

Overall coordination for the implementation of the WFD between Northern Ireland and the Republic of Ireland is undertaken on a bilateral basis at ministerial level, between the Environment Minister in the North and the Minister for the DoEHLG in the South. A North–South Working Group¹⁶ on Water Quality provides assistance to ministers on coordination (EHSNI, 2005).¹⁷ Implementation of the WFD within each RBD is coordinated by the Environment and Heritage Service of Northern Ireland (EHSNI) and the relevant local authorities in the Republic of Ireland.

Under the EU Community Initiative, INTERREG IIIA Programme,¹⁸ a cross-border water management consultancy project – the North-South Shared Aquatic Resources (NS-SHARE) project, was established to help implement the objectives of the WFD in the region. NS-SHARE is the main vehicle for delivering WFD objectives

between August 2004 and March 2008 (across the three IRBDs mentioned above) (NS-SHARE, 2005a). Its main aim is to facilitate coordinated implementation and delivery of the technical tasks required by the WFD (EHSNI, undated), resulting in a harmonised approach. To aid this process a steering group was set up under NS-SHARE, which comprises representatives from government departments in the Republic of Ireland and Northern Ireland, the EPA and the coordinating authorities (McNally, pers. comm., 2006). The NS-SHARE project is being promoted and led by Donegal County Council (in the Republic of Ireland) (EHSNI, 2005).

The North Western IRBD supports a mixture of activities including boating and leisure tourism on the major lake and River Erne system, and angling and sea fisheries on the coast (the Donegal coast boasts the largest sea port in Ireland, Killybegs). The Erne system also supports the production of hydro-electric power, and water across the region supports a large agricultural area (NS-SHARE, 2005b). Intensive arable farming takes place in the Foyle (river) basin and valley, while the Erne catchment is mainly pasture and supports livestock farming. The Republic of Ireland Register of Protected Areas lists 77 SACs and 27 SPAs, which are water dependent, within the region (NS-SHARE, undated [a]).

The Neagh and Bann IRBD consists of Lough Neagh, which is the largest freshwater lake in Ireland. The lough has six major rivers flowing into it, one of which is the Upper Bann. The rivers flowing into the lough drain 43 per cent of Northern Ireland as well as parts of Co. Monaghan in the Republic of Ireland. Water drains from the lake via the Lower Bann River. Lough Neagh has several local, national and international environmental designations, including being designated as a Ramsar (international protected wetland) site. The lough supports local fishing and also provides drinking water to Belfast; sand extraction also takes place (NS-SHARE, 2005c). The portion of the NBIRBD lying within the Republic of Ireland is made up of improved pasture and supports extensive arable farming.

There are four SACs and two SPAs that are water dependent within the region, which are listed in the Republic of Ireland Register of Protected Areas (NS-SHARE, undated [b]).

¹⁶ The working group, which was set up in 2000 includes officials (with technical expertise) from the North and South of Ireland. The group cooperates on a range of initiatives for implementing the WFD (DoEHLG - www.environ.ie).

¹⁷ Within the Republic of Ireland the DoEHLG established a National Co-ordination Group (NCG) to coordinate and promote, at national level, implementation of the implementation of the WFD.

¹⁸ The INTERREG IIIA Programme is designed to support cross-border cooperation, social cohesion and economic development between regions of the European Union. The Northern Ireland/Ireland Programme covers all of Northern Ireland and the six border counties and aims to address the economic and social disadvantages that can result from the existence of a border (Special EU Programmes Body (www.seupb.org/prog.htm#INTERREGIIIAOTHERCOMMUNITYINITIATIVES)).

4.3.2 Interactions between WFD and the Public Participation Directive

Keeping the WFD process as the focus of this study, it is possible to identify areas where linkages in relation to stakeholder input are likely to occur (see Figure 4.3). Case Study 1 also highlights some issues in this regard. While stakeholders are encouraged to participate as early as possible within the various processes i.e. WFD, EIA and SEA, the main areas where there are likely to be direct overlaps are between the WFD and the SEA directive.

4.3.3 Conclusions

- It is possible that two RBMPs and subsequently two SEAs will be developed/carried out for each IRBD i.e. one for the Republic of Ireland portion of the RBD and one for the Northern Ireland portion of the RBD. While NS-SHARE hope to harmonise approaches as far as possible (e.g. in relation to POMs), those carrying out the SEA of the draft RBMP will also need to work closely with NS-SHARE to help avoid duplication of effort, and should give careful consideration as to how future SEAs on 'modified' RBMPs will be coordinated in an effective manner.

- RBMPs may set the framework for future plans, programmes or projects, which may require EIA, SEA and/or AA. Issues may arise where each of the two RBMPs produced for the same IRBD result in a number of plans, programmes or projects, which may be similar in nature and which require the same assessment processes, therefore resulting in duplication of effort.
- Transboundary/cross-border consultation and coordination need to take into account the different legislative/regulatory requirements of affected MSs, particularly in relation to the timing of implementation of various directives. To help prevent duplication of effort in relation to IRBDs (i.e. in the production of RBMPs and their environmental assessment), relevant bodies should work closely together. Likewise, where one state may be ahead in terms of implementing particular elements of the WFD, the other state can work closely with its neighbour to ensure that various processes are not 'reinvented' (McNally, pers. comm., 2006).
- SEA (and EIA) can help facilitate the consultation process for RBMPs and POMs since transboundary consultation is already a requirement of SEA and EIA, providing SEA is applied to RBMPs/POMs equally in both MSs.

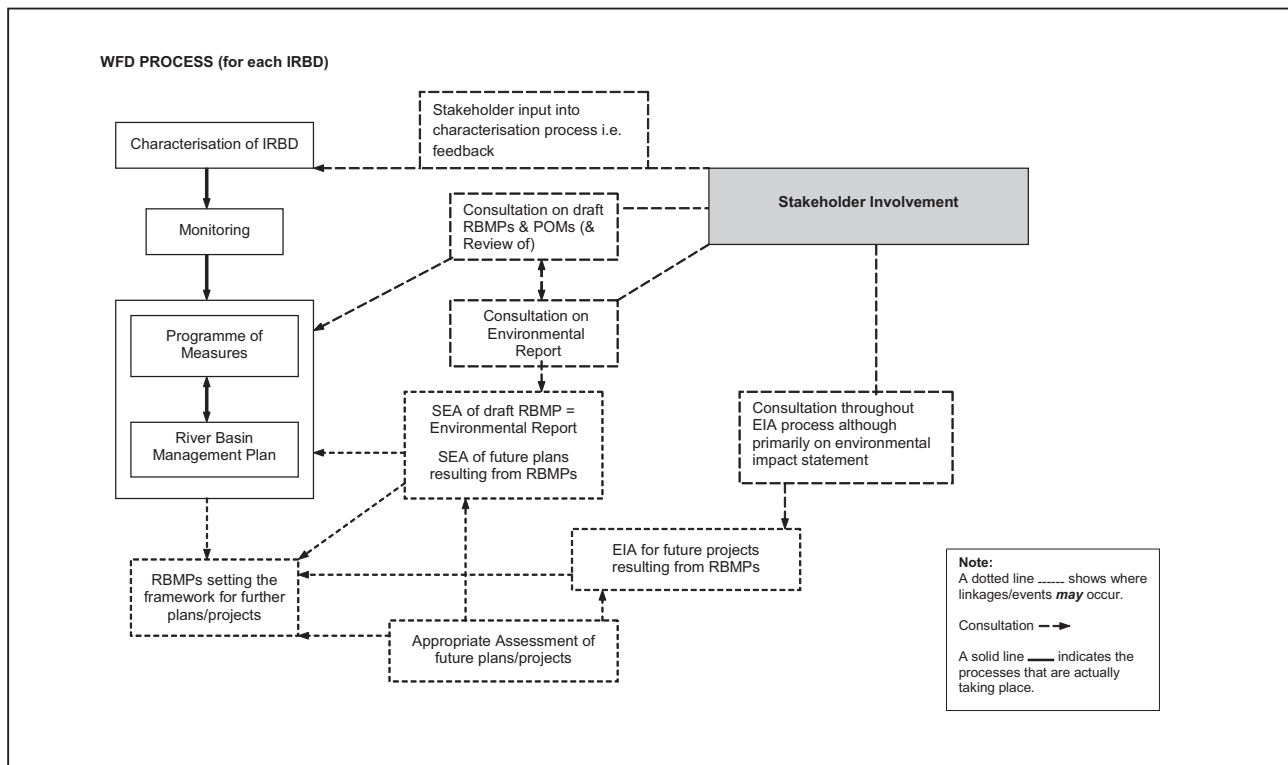


Figure 4.3: Possible linkages between the WFD and the Public Participation, EIA and SEA directives

5 Discussion

5.1 The WFD and SEA

The case studies illustrate the potential complexity of the relationship of the WFD with the other directives. However, there are obviously overlaps between the case studies in terms of the issues they cover. Some of these complexities depend upon the extent of application of the SEA directive to plans and programmes drawn up under the WFD. The SEA directive also encourages the integration of the requirements of other directives with those of the SEA directive.

The arguments for RBMPs requiring SEA are strong, and simply require close attention to the criteria laid out in the SEA directive for screening those plans and programmes that should be subject to SEA:

- RBMPs are to be produced by an 'authority' (Art. 2 [a]).
- RBMPs are required by legislative provision (MSs are required to implement the WFD which establishes this requirement) (Art. 2 [a]).
- RBMPs are plans for the purposes of water management and therefore considered likely to have significant effects on the environment (Art. 3[2] [a]). Even though there is some potential for interpretation of whether plans listed are considered automatically to have significant environmental effects (Sheate and Leinster, 2005), in the case of RBMPs, even if they were not listed they are likely to have significant effects on the environment, particularly positive effects, since that is their intention.
- RBMPs are likely to set the framework for future development consents of projects (under the EIA directive) (Art. 3 [2] [a]), via the POMs that are contained within the RBMP, i.e. they will influence the scale, nature and location of subsequent projects or activities.

Since there appears to be widespread recognition among the literature that POMs should be subject to SEA (for the same reasoning as above, only POMs set the framework directly for project EIAs), there can be little justification for not applying SEA to RBMPs as well, which set the framework for the POMs. Furthermore, there is a particularly strong argument to support the need for SEA at the RBMP level, since the WFD itself stresses the importance of public consultation on the RBMP 'in particular in the production, review and updating of river basin management plans' (Art. 14, WFD), with at least six months required for consultations. This is consistent with the requirement of the Aarhus Convention for early and effective public consultation in environmental decision-making (and reflected in the SEA directive), and highlights the important strategic planning role for the RBMP, such that the public should be consulted during the RBMP planning process. If the RBMP does not set the framework for POMs and subsequent projects/activities, what is its purpose? This also supports an important practical benefit in applying SEA to the RBMP process, since SEA already provides a consultation process (including transboundary consultation where required) which can facilitate consultation on the draft RBMP.

The issue where there has been uncertainty is the last of the four criteria above – 'setting the framework' for EIA of projects, and the desire to avoid duplication. While the SEA directive seeks to avoid *duplication of assessment* this does not mean that assessment should not be carried out at multiple decision levels. Indeed, the SEA directive (in Art. 5[2] and [3]) recognises the value of a hierarchy of plans and programmes, the need to consider appropriate detail according to the level of the plan, and relevant information from other levels of decision-making. It is therefore quite clear that there may be assessments at a number of different levels of decision-making, e.g. at

RBMP, POM and project EIA levels, but that at each level the assessment should be appropriate to that level of decision-making and will address those matters that are best addressed at that particular level.

In the case of RBMPs and POMs, therefore, while POMs are likely to be relatively detailed programmes which set the framework for potential projects, RBMPs should address the more strategic issues of the whole RBD, if – as the WFD expects,¹⁹ – they are to be more than simply a collection of POMs. These will include broad strategic water management options that should be assessed at the RBD level before being selected for subsequent POMs, where SEA would then be more focused on alternative means of implementing the chosen options. This provides a very clear process of ‘tiering’ and a clear means of focusing the assessment at the most appropriate levels, which avoids duplication of assessment, but ensures that the public are consulted in an early and effective manner (i.e. at the draft RBMP stage which sets the strategic direction in terms of selection of water management options and subsequent POMs). Joint or parallel procedures for SEA of RBMPs and POMs may be possible, e.g. combining consultation processes together, so long as the SEA requirements of both are met.

5.2 WFD and Land-Use Planning

There are considerable opportunities for interaction between RBMPs and CDPs. However the precise nature of the relationship is still uncertain and will depend very much upon the nature of the types of developments that are likely to (i) emerge out of the RBMP/POMs process that are of sufficient importance to influence county development plans, and (ii) that are likely to arise through the development-planning process and have significant

influence upon the RBMP/POMs process. The Dublin Water Supply Development Strategy illustrates the latter of these two examples, since it originates through development-planning processes. In this case, if the option discussed in the case study goes ahead it will need to be incorporated into CDPs (and possibly RPGs), which will in this case also influence the future RBMPs yet to be developed. When the RBMPs are adopted they in turn are likely to set in train potential development projects, via POMs, that may be subject to EIA, and may need to be incorporated into existing CDPs. In both scenarios amendments to plans may trigger a requirement for SEA. The key to avoiding excessive duplication of assessment (as opposed to appropriate types and levels of assessment of different plans and programmes) will be to seek efficiencies through the careful timing of revisions of plans so that, for instance, amendments to CDPs triggered by RBMPs or POMs can be addressed as part of the normal revision cycle of CDPs wherever possible. This may be where good coordination between RPG at the regional level and RBMPs (and for example, flood risk management plans) can help identify potential strategies and options well in advance, and so facilitate better coordination among the various levels of assessment. Since RBMPs and CDPs are ultimately the responsibilities of local authorities, there should be scope for coordination in practice.

5.3 Appropriate Assessment (AA)

The requirement for AA under the Habitats directive has brought some confusion concerning the type of assessment required and when it should be applied. In the context of the WFD it is unclear whether AA will apply to RBMPs, POMs, other sub-RBMP management plans or all of them. This is a significant issue requiring some consideration. This section sets out a tentative suggested interpretation of when AA might apply in the context of the WFD. However, it should in no way be considered a formal legal opinion, and ultimately it is for the government (DoEHLG) to consider the correct legal transposition of Article 6 of the Habitats directive and how and when AA is required in the context of the WFD.

¹⁹ Article 13, WFD:

‘1. Member States shall ensure that a river basin management plan is produced for each river basin district lying entirely within their territory.’
‘5. River basin management plans may be supplemented by the production of more detailed programmes and management plans for sub-basins, sector, issue or water type, to deal with particular aspects of water management...’
(Emphasis added). See also Annex VII for a list of what RBMPs should cover.

Article 6 (3) of the Habitats directive requires that:

Any plan or project not directly connected with or necessary to the management of the site but *likely to have a significant effect thereon*, either individually or in combination with other plans or projects, shall be subject to *appropriate assessment of its implications for the site in view of the site's conservation objectives...*

(Emphasis added)

What is meant by AA is unclear, other than that it must assess the implications of the plan or project on the conservation status of the designated site. In the case of projects, EIA can probably serve the function of AA as well, since it will be in sufficient detail by virtue of being a site/location-based study (this is also the view of the European Commission [CEC, 2000]). In the case of a plan it may be that SEA is insufficient to meet the requirements of AA, depending on the nature of the plan and its strategic level. However, there is potential for considerable confusion over whether AA is required for a plan affecting a designated site with regards to a plan that is anything other than one addressing land use at a level where aspects of the plan can be physically identifiable with the location of the site in question. Some plans may require SEA, but may be very strategic sectoral plans that do not at that level establish in sufficient detail the way in which a designated site will be used or affected, which would be the trigger for AA.

Interpreting Article 6 (3)

As a site-based, conservation-focused assessment, an AA need not necessarily be particularly onerous, especially if combined with or delivered through EIA. Because the Habitats directive does not define AA, the term might be read as a 'catch-all' provision that is deliberately inclusive of all circumstances that might require EIA or SEA (on the basis that a potentially significant effect may arise) and thus is designed to ensure that environmental assessment takes place where necessary. The word 'thereon' in Article 6 (3) also implies a degree of closeness or proximity of the effects of the plan in relation to the designated site. The

European Commission guidance 'Managing Natura 2000 Sites' (CEC, 2000) suggests that land-use plans, including regional plans, are likely to require AA where they are likely to have significant effects on a site. It does, however, recognise that very strategic plans or policy statements are unlikely to have such effects directly.

The argument needs to be considered that RBMPs and POMs may have a significant effect on Natura 2000 sites, i.e. the potential cannot be completely ruled out. In the light of this and based on a purposive interpretation of the Habitats directive, the WFD needs to be interpreted in light of the aims and objectives of the Habitats directive – the scope of the Habitats directive should not be narrowed by application of the subsequently legislated WFD. Accordingly, RBMPs and POMs need to be reviewed as to whether AA is required. European Commission guidance (CEC, 2000) and ECJ case law – C127/02²⁰ – make it clear that screening for AA is allowed, i.e. that plans not likely to have a significant effect do not need to be subject to AA. RBMPs and POMs, therefore, will need to be screened individually, since naturally the conservation objectives of each site will be different.

The words 'in view of the site's conservation objectives' suggest a narrowly focused assessment, which does not cover the whole range of environmental factors normally addressed in EIA and SEA. The critical difference here is that if the integrity of a designated site is likely to be adversely affected, the Habitats directive creates a veto on that action (Art. 6), quite unlike formal EIA or SEA. Of course, the simplest way to avoid the need for AA is to ensure that proposed plans or projects are not likely to have significant effects on Natura 2000-designated sites (SPAs and SACs). This may best be achieved through the

²⁰ Landelijke Vereniging tot Behoud van de Waddenzee, *Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij*, intervenier: Coöperatieve Producentenorganisatie van de Nederlandse Kokkelvisserij UA, C127/02, Para 71 (3) (a): 'The first sentence of Article 6(3) of Directive 92/43 must be interpreted as meaning that any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects.'

earliest application of SEA and EIA and its iteration with the proposed plan or project in order to avoid the potential effects in the first place. Article 6 does not distinguish in its requirement for AA between positive and negative effects, only that the plan or project cannot go ahead if adverse effects on the integrity of the site are identified through the assessment. However, case law suggests that a 'significant effect' is one that is considered to be where the sites' conservation objectives are likely to be undermined, in other words where there are negative effects²¹, and not where there might be positive effects that might support the site's conservation objectives.

For many RBMPs/POMs, they are necessarily going to have to address designated sites, and elements of them may be integral to the future management of those designated sites in terms of the aquatic management measures that may be put in place. AA may, therefore, need to be carried out for such RBMPs/POMs alongside or incorporated within SEA, and potentially for revisions/amendments to RBMPs/POMs. Whether RBMPs will require AA will depend on how strategic they are and the extent to which they are manifested at the site level. It may be that only POMs or other sub-plans or programmes of RBMPs will meet the requirement for AA. The recent ECJ judgment in *Commission v. United Kingdom* (C-06/04) requires the UK to apply AA to land-use plans, but caution is needed as to how much can be read across from this judgment to other sectoral plans. The ECJ had previously determined in C127-02 (above) that a requirement for AA is conditional on there being a probability or risk that there will be a significant effect. The implication is not that AA will be required for all plans that might however affect a site indirectly, but that for a plan to be required to undergo AA, the probability or risk of a significant (and adverse)

effect on the site needs to be determined. That probability is, logically, likely to decline the further up the decision-making hierarchy the plan is located. So, at the POMs level it might be considered that there is some likelihood that an action or project identified in the POM affecting a specific designated site is likely to be promoted, but this may be less likely at the RBMP level where there is more scope for considering other alternatives to avoid affecting a site adversely. The probability is less because there is an intervening stage before project level. As explained, this is a tentative interpretation and one for the government and ultimately the courts to decide.

In summary, therefore, there is perhaps a lower probability of requiring AA for RBMPs precisely because they are more strategic (because they are at least one step removed from having significant effects at the designated site level). POMs are perhaps more likely to be subject to AA because they influence directly or set in train those individual actions or projects that arise from them that could affect a specific designated site directly. However, each will need to be screened for AA on a case-by-case basis.

Finally, it would appear that the Irish Habitat regulations, through the exclusion of development plans and local authority development projects from these provisions, risk being in breach of the Habitats directive in a similar way to the UK, which has now been required to amend its regulations, following the ECJ judgment (C-06/04). The Irish government may therefore wish to consider this matter with some urgency.

5.4 Stringent Standards and Objectives

There is potential for conflict between the objectives set for conservation sites designated under the Habitats and Birds directives and those objectives set under the WFD. The WFD is clear that where there is such a conflict that the most stringent objectives shall apply. The main issue then centres on whether the objectives being set are the most stringent. It may be necessary, for the purposes of achieving the overall objectives of the WFD, to develop new more 'stringent' objectives if existing objectives are not considered stringent enough in terms of protecting the

Para. 43: 'It follows that the first sentence of Article 6(3) of the Habitats Directive subordinates the requirement for an appropriate assessment of the implications of a plan or project to the condition that there be a probability or a risk that the latter will have significant effects on the site concerned.'

²¹C-127/02, Para. 47:

'So, where such a plan or project has an effect on that site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned.'

ecological integrity of the designated site (this would apply to aquatic-based sites). In the case of Lough Corrib, conservation measures should be incorporated into relevant CDPs and these could overlap if the same measures are included in POMs/RBMPs, which should also be incorporated into CDPs. Much depends on the timing of different processes, but most up-to-date measures should be incorporated into CDPs. SEAs of CDPs are required to take into account other plans and programmes, including RBMPs.

To ensure accurate assessment of water quality and setting of appropriate stringent objectives, it is necessary to consider 'cumulative effects' of (smaller-scale) human activities. Cumulative effects also need to be considered as part of the WFD objective setting and in the identification of key water management issues for consultation in June 2007, prior to the first RBMPs/POMs being produced.

In the case of Lough Corrib (s.4.2) there is a strong argument for establishing 'stringent' standards/objectives because of the vulnerability of certain species dependent on high water quality. Even though there has been some modification of the water body by human activity, exemptions under the WFD cannot be applied to protected areas. Stringent conservation measures established under the Habitats directive, for the protection of water-based birds, habitats and species, are likely to be essential in helping towards the achievement of 'good ecological status' under the WFD. Such measures are likely to be incorporated into the WFD process (Art. 4[1][c]) and established in the POMs for the RBD. The WFD therefore provides an additional institutional mechanism for promoting better water quality for conservation purposes.

5.5 Information and Baseline Data

The potential for synergy in terms of baseline data collection across the assessment processes (EIA, SEA, AA), and RBMPs and POMs is evident. Baseline data from SEA, RBMP and Habitats conservation processes may inform EIA baseline for proposed developments at the

project level. Information on impacts identified during EIA may inform future WFD characterisation processes. Information from EIAs, on impacts resulting from activities such as water-abstraction projects, could be used to inform any future assessments of 'human activity' for characterisation processes under the WFD, the results of which would be fed into revised RBMPs and POMs. Information on assessment of effects of 'human activity' within RBDs and information on impacts identified during EIAs may also influence planning processes (CDPs, RPG) and strengthen protection of the environment overall.

Relevant measures from the EIA process relating to specific bodies of water could be incorporated into the production of draft POMs. Such measures may help to achieve specific objectives under the WFD. Information from RBD characterisation, particularly in relation to 'human activity' and associated impacts, could be used to inform local authority development plans, SEA and EIA baseline.

Availability of sharing such information between various bodies is considered essential and efforts at establishing data repositories or observatories and regular state-of-the-environment reporting will help ensure much greater efficiency in data collection for WFD purposes and for assessment purposes. Experience in SEA is highlighting the need to undertake baseline data collection in as an efficient and focused way as possible. Baseline data collection is often the most time-consuming part of any assessment process and the ability to go to centralised repositories of data will make the assessment processes far less onerous. The centralised collection of environmental impact statements (EISs) from EIAs and ERs from SEAs, and making them available via the internet, will also help ensure that knowledge is not lost, and that assessments are building on what has gone before. Since the WFD characterisation, planning, implementation and monitoring processes, and EIA, SEA and AA processes are all very data dependent, it is essential that synergies are built upon.

The Environmental Data Exchange Network (EDEN) (EPA, 2006) is being coordinated in Ireland by the EPA and the Local Government Computer Services Board to make available in one place all the data that are available on environmental issues, and to:

- ensure that environmental data are more readily available to authorities, agencies and other bodies;
- create a manageable common approach to environmental information exchange;
- enhance potential for data integration;
- reduce overall costs in data exchange; and
- introduce environmental data standards across a broad spectrum of data.

The outputs resulting from the implementation of the WFD, EIA, SEA, Birds and Habitats directives identified above should provide importance sources of data for EDEN.

5.6 Consultation/Coordination

Consultations are likely to take place for WFD, SEA, and EIA processes, but these may not necessarily coincide in terms of timing, e.g. in the case of Dublin Water Supply this seems unlikely. However, the same stakeholders may well be involved in multiple processes (e.g. WFD, CDP, development projects) and so efforts will be needed to try to minimise consultation fatigue among key stakeholders. NGOs and statutory agencies, for example, are likely to be working on limited resources and unable to allocate time and staff to all consultation opportunities available. This means that many organisations will end up prioritising which planning processes they engage in, and to what extent. Effort at engaging stakeholders early and effectively in decision-making (in line with the Aarhus Convention) is likely to be beneficial since engagement in the strategic direction of planning processes will help ensure there is more consensus on potential measures to be taken, rather than risk of conflict when specific measures are brought forward at a later stage.

Consultation processes under the WFD have already started (see, e.g. SIRBD, 2006), beginning with the publication of the timetable and work programme for the development of RBMPs by June 2009. The WFD

establishes a clear timetable for consultation on RBMPs. The national WFD regulations have established deadlines which are generally six months ahead of the formal WFD deadlines. In each RBD in Ireland consultation will therefore be required in:

- June 2007 – publication of an overview of significant water management issues (SWMI, with at least six months for consultation).
- June 2008 – publication of draft RBMPs (with at least six months for consultation).
- June 2009 – publication of final RBMPs.

This timetable means that SEA requirements for RBMPs – if they are to help facilitate consultation processes – need to be put in place urgently, since the June–December 2007 consultation requirement on key water-management issues would equate to the scoping stage in SEA where, at the very least, the environmental authorities need to be consulted on its scope. Public consultation will be required at least on the SEA environmental report alongside the draft RBMP/POMs. It would be most effective and practical that both the WFD and SEA elements are coordinated fully. Mechanisms need to be put in place to ensure coordinated action and the sharing of information between relevant authorities and across departments to help ensure that environmental protection is integrated effectively into policies and plans.

In the case of the IRBDs it is possible that two RBMPs and subsequently two SEAs will be needed for each IRBD i.e. one for the Republic of Ireland portion of the RBD and one for the Northern Ireland portion of the RBD. This does seem to contradict the very idea of an international river basin as a means of ensuring integrated river basin management, but pragmatically may be the only way in which different institutional structures in each MS either side of the border can deliver on the WFD in these circumstances. Close coordination and collaboration, however, will be essential not just to avoid duplication of effort, but to ensure coherent RBMPs/POMs are delivered. For example, as RBMPs may set the framework for future programmes or projects, which may require SEA, EIA and/or AA, each of the two RBMPs produced for the same

IRBD may result in a number of programmes or projects, which may be similar in nature and which require the same assessment processes.

Alongside the assessment processes transboundary/cross-border consultation and coordination (for RBMPs/POMs and SEA/EIAs) need to take account of the different legislative/regulatory requirements of the two MSs, particularly in relation to the timing of implementation of the various directives, and indeed compliance with those directives. For example, the UK has already decided that SEA will apply to RBMPs/POMs (Defra/WAG, 2006). If one MS is not fully compliant with a directive, and the other is, this is likely to cause problems in agreeing a coherent approach across IRBDs. This suggests that Ireland and the UK should keep abreast of ECJ judgments affecting other countries to determine if they have implications for their own implementation.

5.7 Monitoring

In the same way as there are synergies in baseline-data collection, so there are potential synergies in the monitoring requirements and activities generically under the WFD, Birds and Habitats directives and SEA (and indirectly EIA, as monitoring may take place even though it is not a formal requirement of the EIA directive). Some examples of potential synergies are given below, but this might need to be the subject of a more detailed study examining potential data and monitoring synergies among these directives, particularly in the context of developing data observatories and state-of-the-environment reporting and in the context of the EDEN data management project mentioned in the context of baseline data above (Section 5.5). Examples include:

- Biological/ecological data gathered during RBD characterisation could be used to inform the screening process in EIA (for ordinary development projects, not just those emerging from RBMPs/POMs) in terms of providing information on the sensitivity of the proposed site and absorption capacity of the natural environment in relation to protected areas. Data on habitats and species under the Birds and Habitats

directives could be used to inform EIA baseline evaluation, which may subsequently influence IM and improve mitigation measures. Information collected through EIA, SEA and the Birds and Habitats directives could be fed into new or revised development plans which would help to inform future RBD characterisation in terms of the provision of information on future pressures for a specific area.

- River basin monitoring programmes could be used for the purposes of monitoring in SEAs and for ensuring that measures within the RBMP are being incorporated sufficiently into local authority development plans. This would help strengthen water-resource issues within SEA and development planning. Monitoring in relation to aquatic habitats, undertaken as part of the RBMP process, could be used to strengthen surveillance requirements under the Habitats directive and to inform any waterways birds surveys/monitoring being undertaken. Information from survey programmes undertaken outside the requirements of the WFD and Birds and Habitats directives could be used to support new WFD monitoring programmes.
- Monitoring data on the impacts of certain developments on water quality and protected areas could be used to inform future POMs/RBMPs as well as informing AAs carried out under the requirements of Article 6 of the Habitats directive. Data gathered on activities that may cause disturbance to designated sites under the Habitats directive, and their associated impacts, could also be fed back into the RBMP process and subsequently used to update and inform development plans and their policies.

The WFD is very reliant on GIS, but a lack of suitable data may influence the setting of standards for protected areas under the WFD, which could in turn affect the allocated or achievable 'status' of a particular body of water. A lack of data may also mean that small-scale 'activities' and potential cumulative effects may be overlooked in the RBMP process in terms of their effects on water quality and ultimately on biodiversity.

5.8 Forthcoming Legislation Relevant to this Study – Floods Directive

The European Commission first proposed an EU action on flood-risk management on 12 July 2004 in the Commission Communication on 'Flood risk management; flood prevention, protection and mitigation' (COM[2004]472) (CEC, 2004). The Commission developed a proposal for a directive, including extensive consultations with stakeholders and the public during 2005, with the final internet-based consultation taking place between 20 July and 15 September 2005. Findings of the final consultation showed that 'the approach proposed by the Commission was very broadly endorsed' (CEC, 2005b).

On 18 January 2006 the Commission adopted its proposal for a directive of the European Parliament and of the Council on the assessment and management of floods (COM (2006)15 final of 18.1.2006) (CEC, 2006a). The proposal creates an EU framework for flood-risk management that is closely related to the WFD. The proposed directive aims to help MSs prevent and limit floods, their damaging effects on human health, the environment, infrastructure and property via a three-step process. This involves a preliminary flood-risk assessment of river basins and associated coastal zones, and where real risks of flood damage prevail, zones will be subject to flood-risk maps and flood-risk management plans focusing on prevention, protection and preparedness (CEC, 2006b).

The European Council agreed to adopt a common position on the draft Floods directive in June 2006 (Council of the EU, 2006)²² in readiness for a Second Reading of the draft directive later in 2006. The draft Floods directive is therefore another potential directive that will interact with the WFD, EIA, SEA, Birds, Habitats and Public Participation directives, and so will need to be considered in any future efforts to coordinate procedures among the directives. In Ireland, one effect would be to make flood-risk management plans statutory plans for the purposes of the SEA directive, and therefore requiring SEA.

Clearly, these plans will have the potential for interaction with RBMPs/POMs and with CDPs and RPG, all of which may be subject to SEA and/or AA, adding a further level of complexity that should be taken into account when seeking to develop coherent approaches to water- and land-use planning processes.

The first application in Ireland of SEA to flood risk management plans has been commissioned (late 2006) by the Office of Public Works with respect to the Lee Catchment in Cork, and will provide an opportunity to review these potential interactions. Following the discussion above, which brings together the key findings of the various tasks undertaken, a number of conclusions and recommendations (R1–13) are made. Given the timetables for implementing the WFD most of the recommendations made are urgent or need action in the short term.

²² Council of the European Union (2006), Press Release 192, 2740th Council Meeting, Environment, 27 June 2006. Available from http://www.eu2006.at/en/News/Council_Conclusions/2706Environment.pdf [Last accessed 24/11/06].

6 Conclusions and Recommendations

6.1 The WFD and SEA

All RBMPs and POMs will need to be screened for SEA, but *prima facie* both would appear to have the potential to meet the four key SEA directive criteria. There is considerable confusion among those involved in implementing the WFD as to whether SEA will apply to RBMPs and/or POMs. The view from this research is that both RBMPs and POMs should be subject to the SEA directive, recognising that each will need to assess different issues at their respective levels. The timetable for implementing RBMPs, and the six-month minimum consultation requirement at each stage, means that SEA needs to be introduced into the RBMP process with sufficient time before consultation on significant water-management issues in June 2007 (which would equate to the scoping stage of SEA), i.e.:

- significant water management issues by June 2007;
- draft RBMPs by June 2008; and
- final RBMPs published by June 2009.

Clear guidance, perhaps in the form of a circular letter, is therefore needed at the earliest opportunity (see also R1 and R2 below). Principally, such guidance would focus on:

- the need to undertake SEA on RBMPs and POMs;
- who is responsible for undertaking the SEAs;
- the appropriate synchronising of SEA and RBMP processes (e.g. SEA scoping at the time of the SWMI reports);
- the appropriate consideration of alternatives (which need to be considered as early as possible in the SEA process); and
- how the SEA process can help facilitate public involvement in the RBMP consultation process.
- It is recognised that detailed guidance on specific issues will depend on a clear understanding of the content of RBMPs and POMs which is only now beginning to happen.

Recommendation 1

Both River Basin Management Plans (RBMPs) and Programmes of Measures (POMs) should be made subject to the SEA directive. DoEHLG needs to issue guidance on applying the SEA regulations to RBMPs and POMs at the earliest opportunity.

Recommendation 2

DoEHLG should ensure that SEA guidance on RBMPs and POMs clarifies where responsibility for SEA lies; and promotes the positive benefits of integrating SEA and the RBMP/POMs processes.

6.2 WFD and Land-Use Planning

The potential interactions between RBMPs and CDPs are significant. The exact nature of the relationship will depend upon the nature of the types of developments that are likely to:

- 1 emerge out of the RBMP/POMs process that are of sufficient importance to influence county development plans; and
- 2 arise through the development planning process and have significant influence upon the RBMP/POMs process.

There is, therefore, potential for two-way traffic between RBMPs/POMs and CDPs, one potentially bringing about the amendment of the other where proposals or developments are of such significance as to require revision or amendment of the other plan. Amendments to plans may trigger a requirement for SEA and projects coming forward under RBMPs/POMs or via CDPs may trigger EIA. There is potential therefore for overlap or duplication of assessment, but also for positive synergy across assessment levels. Careful timing of revisions of plans will be needed to reduce the potential for duplication of effort, e.g. amendments to CDPs triggered by

RBMPs/POMs should be addressed as part of the normal revision cycle of CDPs wherever possible. Coordination between RPG at the regional level and RBMPs (and also flood-risk management plans) could help identify potential strategies and options well in advance, and so facilitate better coordination among the various levels of assessment. Since local authorities have responsibility for land-use planning and WFD implementation, some coordination should be possible.

Recommendation 3

DoEHLG should issue guidance to local authorities and RBDs on the relationship between RBMPs/POMs and county development plans and regional planning guidelines, to promote effective coordination between the WFD and land-use planning and assessment processes, including timing of revisions.

6.3 Appropriate Assessment (AA) and RBMPs/POMs

The relationship between RBMPs, POMs and AA under the Habitats directive will require legal clarification by government. The arguments outlined in this research suggest that POMs are likely to be subject to AA, but there may be more of a question as to whether RBMPs should be. It is difficult in the absence of any RBMPs having yet been produced to know exactly what these plans will look like, but on the basis of the legal requirements in the Habitats directive, RBMPs are clearly meant to provide the strategic framework for subsequent plans or programmes of measures. As such, the probability or risk of the RBMP affecting a specific designated site may possibly be less than that for a POM. However, both RBMPs and POMs will need to be screened for AA on a case-by-case basis. Since it would also appear the government may be risking potential breach of the Habitats directive by not requiring AA for land use plans, government will need to consider amending the regulations and issuing new guidance on AA as soon as possible. Given the timetable for RBMP/POMs production, and the need for SEA (R1 and

R2 above), the same timescale needs to apply to clarification on AA, given the potential for interaction between the WFD, SEA and Birds and Habitats directives. If AA is to be undertaken it needs to be integrated properly with the WFD and SEA processes.

Recommendation 4

DoEHLG should consider the issue of 'appropriate assessment' and RBMPs/POMs and the possible need to amend the Habitats regulations and issue guidance in relation to requiring AA for land-use plans as soon as possible.

6.4 Stringent Standards and Objectives

In the context of objective setting under the WFD, there is a need to consider 'cumulative effects' of (smaller-scale) human activities to ensure accurate assessment of water quality and the setting of appropriate stringent objectives. Cumulative effects are central to SEA, although experience of undertaking such assessments is rather limited (though developing). The application of SEA to RBMPs and POMs will facilitate the assessment of cumulative effects as part of those processes, and will help identify WFD objectives in the RBMP, as well as providing information for further iteration in the future. However, cumulative effects also need to be considered as part of the WFD objective setting and in the identification of key water management issues for consultation in June 2007, prior to the first RBMPs/POMs being produced.

Recommendation 5

Cumulative effects should be addressed explicitly as part of the WFD implementation strategy, and will need to be coordinated by the WFD National Coordination Group. The integration of RBMP production with SEA will facilitate this.

6.5 Information, Baseline Data and Monitoring

From this research and especially the case studies it is clear that data issues remain uppermost in terms of the challenges faced by RBDs and conservation bodies implementing the Birds and Habitats directives. Baseline data from different processes, particularly in relation to conservation, need to be improved as a matter of urgency both in terms of quality of data gathered and their availability.

Directly linked to this is the need to ensure availability of adequate resources for the development of digitised data on water-based birds and habitats so that they can be used alongside the WFD process and inform RBD characterisation. Without such data, important birds and habitats may be excluded from the RBMP process. GIS data from monitoring processes, particularly under the WFD, but also from Birds and Habitats directives and in relation to EIA and SEA, should be collated at a national level for use in other decision-making processes. The EDEN project is a key step in this direction.

Recommendation 6

DoEHLG and EPA should ensure the EDEN data management project makes full utilisation of the outputs from the application of the WFD, EIA, SEA, Habitats and Birds directives and takes into account the data needs of these key directives in prioritising investment in GIS data-collection and management systems.

6.6 Consultation and Coordination

6.6.1 RBMPs, Consultation and SEA

As already identified in R1 and R2, the consultation requirements on the RBMPs are quite demanding and consultation strategies need to be put in place well in advance of drafting the RBMPs/POMs. **SEA can help facilitate this if it is introduced into the RBMP process as early as possible.** Aside from and alongside SEA (R1, R2) there is a need for consistent *methods* of involving

'interested parties' across the RBDs i.e. consultation measures adopted for the WFD process should be the same across RBDs. While public participation measures are being coordinated by the WFD National Public Participation Working Group, it would be helpful for information and/or guidance concerning these measures to be made available to the public via the internet, and also that such guidance should promote SEA as a means of helping deliver public participation in the RBMP process. Formally, this will involve at least consulting the environmental authorities during SEA scoping and the wider public and stakeholders on the SEA Environmental Report alongside the draft RBMP/POMs.

Recommendation 7

Specific information/guidelines about the consultation process and methods to be adopted for RBMPs should be produced by DoEHLG/WFD National Public Participation Working Group and should promote the SEA process as the mechanism for helping to deliver the public consultation requirements of the WFD.

6.6.2 Consistency in Approach

It is also clear that coordination can extend to the role of individual authorities since river basin authorities also have competence for agriculture, industrial pollution, land-use planning etc. There should be scope for stronger coordination within authorities, e.g. in dealing with WFD and SEA, and across authorities where RBDs cover multiple administrations (i.e. the competent authorities responsible for managing RBDs are the local authorities acting jointly). In the context of IRBDs, there is a strong case for the continued existence of a coordinating body e.g. NS-SHARE, for transboundary issues, beyond the current RBMP process.

There may be useful lessons to learn from approaches to implementing the WFD from other MSs and this may be best achieved by close liaison with colleagues in the relevant environmental authorities through the various EU WFD working groups and through targeted commissioned research.

Recommendation 8

DoEHLG should issue further guidance on coordinating within and across authorities the implementation of the WFD, SEA and land use planning in particular. This could be part of the same guidance referred to in R1 and R2.

Recommendation 9

The government should continue to give high priority to ensuring appropriate Ireland/UK coordination in relation to implementation of the WFD, especially in relation to river basins shared with Northern Ireland. An extension in the timeframe of the NS SHARE project is recommended.

Recommendation 10

DoEHLG/EPA should commission targeted research to explore possible lessons from different approaches of other EU member states with regard to implementing the WFD, for example with respect to coordination with land use planning, cross-border cooperation, and integration with other directives.

6.6.3 Education and Awareness Raising

A clear message coming from a number of the interviewees for this research is that many organisations are unfamiliar with the potential implications of the WFD, or if they are, they are far less familiar with its potential interactions with other directives such as the EIA/SEA directives or the Birds/Habitats directives. There is a clear opportunity here for the EPA and/or DoEHLG to carry out an educational and awareness raising role in organising facilitated workshops for authorities, agencies and NGOs on the WFD and other directives. A first step in relation to this project may be a workshop to present and discuss the findings from this research to stakeholders. However, from the experience to date, it would seem that such a workshop should be the start of a longer campaign strategy to engage with stakeholders beyond those immediately involved in delivering the WFD, particularly to

reach across to those engaged in conservation management and land-use planning.

For example, a facilitated workshop should be run within each RBD on how the various directives will interact with and affect the WFD process (this should be done before drafting of RBMPs begins). These workshops should:

Help authorities to become aware of the different processes and implications for river basin management planning (currently, knowledge tends to be on their own area of expertise with little knowledge or understanding of the 'wider' picture and other processes which affect them).

Help interested parties i.e. stakeholders make informed decisions. Consultation and subsequent feedback is unlikely to be effective if stakeholders do not understand the issues in the first place.

It is also suggested that a national workshop be held with representatives of each RBD and other bodies/stakeholders involved, after the first RBMPs have been produced to discuss how the application of SEA and/or other processes were addressed and carry out a SWOT (strengths, weaknesses, opportunities, threats) or similar analysis so that lessons may be learnt and more coordinated/harmonised approaches adopted.

Recommendation 11

DoEHLG and/or EPA should consider organising a facilitated workshop on how the various directives considered by this research will interact and affect the WFD process. This will need to take place at the earliest opportunity in order to influence the RBMP planning process.

Recommendation 12

A national workshop should be organised by DoEHLG/EPA once the first RBMPs have been produced to learn from the experience of how SEA and other directives (e.g. Habitats and AA) have been addressed.

6.7 Forthcoming Legislation – Floods Directive

In order to take account of its likely implications as early as possible during the implementation of the WFD and in revisions to CDPs and RPG, further research along similar lines to this study is needed. As the proposed Floods directive advances through the European Parliament and Council, the text can be compared to those directives studied here to highlight potential areas of overlap, similarities and differences.

Reflections following the first application of SEA to the Flood Risk Management Plan of the Lee Catchment (late in 2006) will provide an important opportunity to review this process.

Recommendation 13

As the proposed Floods directive progresses, the EPA should undertake further research to examine the potential interactions of the proposed Floods directive with the six directives examined in this research.

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Acronyms

AA – appropriate assessment

AWB – artificial water body

CDM – an engineering consultancy (<http://www.cdm.com/>)

CDP – county development plan(s)

DoEHLG – Department of Environment, Heritage and Local Government

DoENI – Department of Environment Northern Ireland

ECJ – European Court of Justice

EDEN – Environmental Data Exchange Network

EHSNI – Environment and Heritage Service Northern Ireland

EIA – environmental impact assessment

EIS – environmental impact statement

ER – environmental report

ENTEC – Environmental and engineering consultancy - <http://www.entecuk.com/>

ERBD – Eastern River Basin District

EU – European Union

GIS – geographical information systems

HMWB – heavily modified water body

IBA – Important Birds Area

IPPC – Integrated Pollution Prevention and Control

IRBD – International River Basin District

IWC – Irish Wildbird Conservancy

MS(s) – member states

NBIRBD – Neagh Bann International River Basin District

NCG – National Co-ordination Group

NGO – non-governmental organisation

NHA – Natural Heritage Area

NPWS – National Parks and Wildlife Service

NS-SHARE – North South Shared Aquatic Resource (INTERREG IIIA project)

NTCG - National Technical Coordination Group

NWIRBD – North Western International River Basin District

pNHA – Proposed Natural Heritage Area

POMS – Programme of Measures

PP – Plans and Programmes

RAs – regional authorities

RBD(s) – river basin district(s)

RBMP(s) – river basin management plan(s)

RPG – Regional planning guidelines

cSAC – Candidate Special Area of Conservation

SAC – Special Area of Conservation

SEA – Strategic environmental assessment

SIRBD – Shannon International River Basin District

SPA – Special Protection Area

SWAN – Sustainable Water Network

WFD – Water Framework directive

WRBD – Western River Basin District

Appendix 1

Table A 1 Comparison of the texts of the six directives

Issue	Water Framework directive	EIA directive ²³	SEA directive ²³	Public Participation Directive	Birds directive	Habitats directive
Title	Directive...establishing a framework for Community action in the field of water policy	Directive...on the assessment of the effects of certain public and private projects on the environment	Directive...on the assessment of the effects of certain plans and programmes on the environment	Directive...providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment...	Directive...on the conservation of wild birds	Directive...on the conservation of natural habitats and of wild fauna and flora
Objectives	Art. 1 – specifies 'purpose' of the directive (Art. 1(e) mentions 'achieving the objectives of relevant international agreements') Art. 4 – details 'environmental objectives' in relation to the operation of the programme of measures	Although Art. 1(5) refers to 'the objectives of this Directive' these are not explicitly set out	Statement of objectives (first part Art. 1)	Statement of objectives – Art. 1	No specific statement of objectives, although Art. 1 outlines what the directive relates to	No specific statement of objectives, although Art. 2(1) refers to the 'aim' of the directive
Definitions	Art. 2: - 'surface water' - 'groundwater' - 'inland water' - 'river' - 'lake' - 'transitional waters' - 'coastal water' - 'artificial water body' - 'heavily modified water body' - 'aquifer' - 'body of groundwater' - 'river basin' <i>Contd on next p. 52...</i>	Art. 1(2): - 'project' - 'developer' - 'development consent' - 'the public' - 'the public concerned'	Art. 2: - 'plans and programmes' - 'environmental assessment' - 'environmental report' - 'the public'	Art. 2(1): - 'public'	No definitions provided	Art. 1: - 'conservation' - 'natural habitats' - 'natural habitat types of Community interest' - 'priority natural habitat types' - 'conservation status of a natural habitat' - 'habitat of a species' - 'species of Community interest' <i>Contd on next p. 52...</i>

²³ The text in these two columns is taken from a comparison between the EIA and SEA Directive in the following study:

Sheate, W., Byron, H., Dagg, S. and Cooper, L. (2005) *The Relationship between the EIA and SEA Directives – Final Report to the European Commission*, Imperial College London Consultants, August.

* Text in italics show amendments introduced by the 'Public Participation directive'.

Issue	Water Framework directive	EIA directive	SEA directive	Public Participation Directive	Birds directive	Habitats directive
Definitions contd	<ul style="list-style-type: none"> - 'sub-basin' - 'river basin district' - 'competent authority' - 'surface water status' - 'good surface water status' - 'groundwater status' - 'good groundwater status' - 'ecological status' - 'good ecological status' - 'good ecological potential' - 'good surface water chemical status' - 'good groundwater chemical status' - 'quantitative status' - 'available groundwater resource' - 'good quantitative status' - 'hazardous substances' - 'priority substances' - 'pollutant' - 'direct discharge to groundwater' - 'pollution' - 'environmental objectives' - 'environmental quality standard' - 'combined approach' - 'water intended for human consumption' - 'water services' - 'water use' - 'emission limit values' - 'emission controls' 					<ul style="list-style-type: none"> - 'priority species' - 'conservation status of a species' - 'site' - 'site of Community importance' - 'special area of conservation' - 'specimen' - 'the committee'
Scope	Art. 3(1) & Art. 4(1)	Art. 4	Art. 3	Arts. 2(2), 2(3), 2(4) & 2(5)	Art. 4	Art. 4

*The Water Framework Directive, Assessment, Participation and Protected Areas:
What are the Relationships?*

Issue	Water Framework directive	EIA directive	SEA directive	Public Participation Directive	Birds directive	Habitats directive
Measures to be adopted	Art. 4(1), Art. 11, Annex VI & Annex VIII	Art. 2(1), Art. 5(1) & 5(2), Art. 6 & Annex IV	Art. 7(2) & Annex I		Art. 2, Art. 3(1), Art. 4(1) & 4(2) & Art. 5	Art. 6(1), Art. 8(4), Art. 12(1), Art. 13(1), Art. 14 (1) & 14(2)
Exemptions	Art. 4(6) – mentions 'temporary deterioration in the status of bodies of water' not being a breach of the requirements of the directive if 'this is the result of circumstances of natural cause or force majeure...'	Arts. 1(4), 1(5) & 2(3) Arts. 1(4) & 2(3)	Arts. 3(8) & 3(9)	Arts. 2(4) & 2(5)	Art. 1(3),	No exemptions specified
The assessment of the types of effects to be considered	Art. 1(e) refers to 'mitigating the effects of floods and droughts' Art. 4(3)(a) when a body of surface water is designated as artificial or heavily modified and where changes to the hydro-morphological characteristics would have 'significant adverse effects on...' Art. 4(6)(d)&(e) 'effects of the circumstances' Art. 9(1) when recovering the costs of water services regard should be given to 'the social, environmental and economic effects'	Art. 3 the EIA 'shall identify, describe and assess...the direct and indirect effects of a project...' Annex IV – types of effects	Art. 5(1) in the environmental report 'the likely significant effects on the environment...should be identified, described and evaluated.' Annex I – types of effects	In the context of amendments to directive 85/337/EEC: Art. 3(5)(a), 3(6)(a)	Only mention of 'effects' in the context of the 'effects of marketing on such status' Art. 6(4) [i.e. biological status] Art. 1(1)	Art. 6 (3) refers to an 'appropriate assessment' of the likely significant effects of plans or projects not directly connected with the site, in view of the site's conservation objectives. The integrity of the site should not be adversely affected.
Elements of environment to be considered	4(3)(a) refers to analysis of characteristics for each river basin district	Art. 3	Annex I (f)		Art. 1(2)	
Alternatives/ Options	Art. 11 & Annex III	Art. 5(3) & Annex IV	Art. 5(1), Art. 9(1)(b) & Annex I			Art. 6(4) & Art. 16(3)

Issue	Water Framework directive	EIA directive	SEA directive	Public Participation Directive	Birds directive	Habitats directive
Environmental Information / report	Art. 13 requires the production of a 'river basin management plan' for each river basin district Annex VII contains a list of information to be included in the RBMP	Art. 5 – refers to the information, which must be provided, the phrase 'environmental report' is not used. Annex IV contains a list of information. Art. 5(3) the minimum information needed	Art. 5 contains provisions to the environmental report. Annex I contains a list of information		Art. 12 – only mentions reporting in the context of member states submitting 'a report on the implementation of national provisions...' to the Commission	Art. 4(1) requires member states to produce a 'list of sites' based on criteria set out in Annex III (Stage 1) Art. 16(2) & 16(3) – report on derogations Art. 17(1) requires member states to 'draw up a report on the implementation of measures...'
Public/ Authority Input	Art. 3(2) Art. 12 makes provision for 'public information and consultation' - encourages 'active involvement of all interested parties'	Art. 6 splits consulting authorities and public input into separate provisions Art. 6 amended by 'public participation Directive'	Art. 6 deals with consultation of authorities and the public in the same provisions	Arts. 2(2) & 2(3)	No mention of consultation	Art. 5 refers to a 'bilateral consultation procedure' Art. 17(1) Art. 22(a) makes specific reference to 'proper consultation of the public concerned' in the context of re-introducing species
Transboundary consultation	Arts. 3(3), 3(4) – refers to 'international river basin districts' where a river basin covers the territory of more than one member state	Art. 7 Art. 7 amended by 'public participation Directive'	Art. 7	Art. 3(5)(a) – In the context of amendments to Directive 85/337/EEC		
Decision-making	Art. 3 – refers to the identification of appropriate competent authorities	Art. 8	Art. 8			
Information on decision		Art. 9 Art. 9 amended by 'public participation Directive'	Art. 9	Art. 3(6) – In the context of amendments to Directive 85/337/EEC		

*The Water Framework Directive, Assessment, Participation and Protected Areas:
What are the Relationships?*

Issue	Water Framework directive	EIA directive	SEA directive	Public Participation Directive	Birds directive	Habitats directive
Commercial confidentiality		Art. 10				
Access to review procedure		New Art. 10(a) introduced by 'public participation Directive'				
Monitoring	Art. 8 – requirement to establish a 'programme for the monitoring of water status' Annex V (1.3)		Art. 10			Art. 11 – refers to surveillance of... natural habitats and species Art. 12(4) – monitoring incidental capture and killing of an animal species
Environmental quality standards	Preamble (40) & (42), Art. 7(2), Art. 11(5), Art. 16		Art. 3(5) & Annex II			
Pollution prevention and control	Preamble (40), Art. 1, Art. 4(1), Art. 11(3), Art. 16 & Art. 17				Art. 4(4)	
Relationship with other Community legislation	Art. 4(8) & 4(9) Art. 11 (3a)	Art. 2(2a)	Art. 11	Art. 1(b)		
Information, reporting and review	Art. 15 – requirements of member states to report to the Commission Art. 18 – Commission reporting requirements	Art. 11	Art. 12		Art. 12(1)	
Implementation	Art. 24	Art. 12	Art. 13	Art. 6	Art. 18	Art. 23
Entry into force	Art. 25	Art. 13	Art. 14	Art. 7		
Addressees	Art. 26	Art. 14	Art. 15	Art. 8	Art. 19	Art. 24

Issue	Water Framework directive	EIA directive	SEA directive	Public Participation Directive	Birds directive	Habitats directive
Objects requiring mandatory assessment	Annex V – provisions to be fulfilled for the operational programme of measures in relation to surface waters Art.(6) & Annex IV – requires mandatory register of protected areas; including those covered by the 'Birds Directive', 'EIA Directive', and 'Habitats Directive'	Annex I Amended by 'public participation Directive'	Art. 3(2)		Art. 4(1) – species subject to special conservation measures	Art. 4
Objects requiring screening		Annex II Amended by 'public participation Directive'	Art. 3(3) & 3(4)			Annex I & II
Screening criteria		Annex III	Annex II			Annex III
Information / ER contents	Annex VII	Annex IV	Annex I			Art. 16(3) – reports on derogations
Key transposing legislation in Ireland	European Communities (Water Policy) Regulations 2003 (S.I. No 722/2003)	European Communities (Environmental Impact Assessment) Regulations 1989 (S.I. No. 349/1989); European Communities (Environmental Impact Assessment) (Motorways) Regulations 1988 (S.I. No. 221/1988); Planning and Development Regulations 2001 (S.I. No. 600/2001); Planning and Development Regulations 2005 (S.I. No. 346/2005)	European Communities (Environmental Assessment of Certain Regulations 2004 (S.I. No. 435/2004); Planning and Development (Strategic Environmental assessment) regulations 2004 (S.I. No. 436/2004).	Planning and Development Regulations 2005 (S.I. No 346/2005) Planning and Development (Strategic Infrastructure) Act 2006 (s.13).	European Communities (Conservation of Wild Birds) Regulations (S.I. No. 291/1985, plus individual regulations implementing SPA designations.	EU (Natural Habitats) Regulations 1997 (S.I. No. 94/1997)

