



water matters

"Have your say!"

Digest of submissions and responses to Significant Water Management Issues Reports

Eastern River Basin District

In accordance with Article 14 of the European Communities (Water Policy) Regulations 2003 (S.I.
No 722 2003)

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1.0 Introduction

1.1 Background

The EC Water Framework Directive (WFD) was adopted in 2000 and requires that Member States manage their waters on the basis of River Basin Districts (RBDs). There are eight RBDs on the island of Ireland. Three of these are International River Basin Districts (IRBDs) because their catchments lie partly in Ireland and partly in Northern Ireland.

As part of the process leading to the making of river basin management plans for each RBD, the WFD requires the identification of Significant Water Management Issues (SWMI) in each RBD at least two years before the beginning of the River Basin Management Plan. Significant water management issues are defined as environmental pressures that pose the greatest risk to water bodies in the River Basin District. These are the issues that could cause water bodies to fail to achieve the environmental objectives of the WFD by 2015. The significant issues were identified using the latest information available and consultation with key stakeholder groups including:

- Characterisation reports produced under WFD Article 5 for each RBD
- Further Characterisation studies
- National water quality reports
- Analysis of the sectors and activities that are putting water bodies at risk in the River Basin District
- Consultation with statutory River Basin District Advisory Councils
- Consultations with public authorities and sectoral interest groups

A significant water management issues report was published for each RBD in the form of a booklet titled '*Water Matters – Have your say!*' The booklets were produced to inform stakeholders of the main significant water management issues that were identified as having an impact on water quality in the RBD. They also outlined proposals for what might be done to address these issues in the River Basin Management Plans. These '*Water Matters – Have your say!*' booklets were published on the 22nd June 2007.

The public were invited to submit their comments on the contents of the booklets over a six month consultation period.

1.2 General context and layout of '*Water Matters – Have Your Say!*' reports

The '*Water Matters*' booklets were intended to be easily understood and read by people with differing levels of knowledge of the Water Framework Directive. The booklets were divided into 8 national topics that had been identified as significant within all the River Basin Districts in Ireland and 1 topic on local issues in the River Basin District such as invasive alien species, high quality areas, shared water issues, future pressure trends and climate change. Specific questions were posed about each topic seeking the readers' view about the suggested actions, whether the actions were appropriate and whether something important had been missed. See Appendix 1 for the full list of questions.

1.3 Consultation and Participation Activities

Consultation on ‘*Water Matters*’ reports took place from 22nd June to 22nd December 2007. Stakeholders and the public were invited to submit comments by post to nominated persons, through the river basin district website (www.erbd.com), or by filling in questionnaires at the public consultation evenings.

In order to publicise the ‘*Water Matters*’ booklet and provide opportunities for the public to engage in the consultation process, a series of evening meetings were hosted in the Eastern River Basin District by the ERBD project during October and November 2007. Three public meetings were held by the ERBD project, as detailed in Table 1.

Venue	Date
Wicklow – Grand Hotel	30 th October 2007
Kildare – Lawlor’s Hotel	31 st October 2007
Meath – Ardboyne Hotel	1 st November 2007

Table 1: Public Consultation Meetings

1.4 Scope of the digest

This digest is a compilation of written submissions received during the consultation period, completed questionnaires and comments made at public meetings for both the ERBD and the other districts. All submissions are responded to herein and will be considered during the development of the draft river basin management plans. These draft plans must be published by the 22nd December 2008 and are then also subject to a 6 month consultation period. This compendium of submissions and responses will be available on the ERBD project website.

2.0 Summary of submissions

2.1 Written submissions

A total of 15 written submissions were received for the Eastern River Basin District. See Appendix 2 for a list of organisations that made written submissions to the ERBD project.

2.2 Comments / questionnaires received at public meetings

Relevant comments and questions made at the public consultation meetings were also included in the digest.

2.3 Topics covered

Written submissions, questionnaires and comments received were examined and were divided into:

- Issues related to the 8 national topics:
 - ◆ Wastewater and industrial discharges
 - ◆ Landfills, quarries, mines and contaminated lands
 - ◆ Agriculture
 - ◆ Wastewater from unsewered properties
 - ◆ Forestry
 - ◆ Usage and discharge of dangerous substances
 - ◆ Physical modifications
 - ◆ Abstractions
- Specific local issues in the Eastern River Basin District which include issues surrounding invasive alien species, high quality areas, and climate change.
- Additional issues not identified in the '*Water Matters*' report.
- Issues associated with action themes such as resources and public participation.
- Miscellaneous issues that could not be specifically grouped.

3.0 Detailed Comments

Written and verbal submissions / comments are outlined in this section together with a considered response. Submissions and responses are grouped where possible as described above (Section 2.3).

3.1 Referencing system

Reference codes have been assigned to the organisations and individuals that made submissions (see Table 2 below). The codes allow the reader to identify the source of the submission and which river basin district it refers to.

National Submissions	Reference Code
Waterways Ireland	E SWMI 001
Irish Doctors Environmental Association	E SWMI 002
Irish Wildlife Trust	E SWMI 003
Faite Ireland	E SWMI 004
Irish Concrete Federation	E SWMI 005
Bird Watch Ireland	E SWMI 006
Office of Public Works	E SWMI 007
Irish Farmers Association	E SWMI 008
SWAN	E SWMI 009
Forest Service, Department of Agriculture Fisheries and Food	E SWMI 010
Other National Abstraction Submissions	Reference Code
NB-NW SWMI 011 - Loughs Agency	NB-NW SWMI 011
NB-NW SWMI 023 - Public meeting Cavan	NB-NW SWMI 023
SE SWMI 017 - Charles Tweeney	SE SWMI 017
SE SWMI 018 - John Fitzgerald	SE SWMI 018
SE SWMI 019 - Eamon Moore	SE SWMI 019
SE SWMI 023 - South Eastern Network Group	SE SWMI 023
SE SWMI 024 - Marie Power - Irish Wildlife Trust	SE SWMI 024
Local Submissions	Reference Code
Coillte	E SWMI 011
Dublin Trout Anglers Association	E SWMI 012
Meath Heritage Forum	E SWMI 013
An Taisce	E SWMI 014
ESB	E SWMI 015

Table 2: Reference system to identify submissions in the digest.

3.2 Submissions and Responses

3.2.1 Wastewater and industrial discharges

Submission Reference No.	Issues Identified	Response
E_SWMI_003 E_SWMI_009	All treatment plants for 2000+ population should be upgraded to tertiary treatment levels and all new sewage treatment plants should have tertiary treatment levels.	Tertiary treatment is required when, due to the sensitivity of the receiving water, a higher standard of treated effluent is required. There are different types of tertiary treatment. One example is the exposure of secondary treated effluent to ultra violet light to inactivate microbiological pathogens. This type of tertiary treatment is used to protect bathing and shellfish waters. Another example is the use of chemicals to remove phosphate. This is used if the discharge is to waters that are eutrophic and the nutrient causing the problem is phosphate. In the case of many discharges there would be no benefit in providing tertiary treatment.
E_SWMI_003 E_SWMI_009	Infrastructure leakage needs to be addressed. Regular monitoring systems must be established to identify, locate and repair leaks. Storm drainage must be disconnected from sewerage infrastructure.	Leaks from sewers can pollute groundwater and surface waters. It is currently a legal requirement that local authorities provide 'fit for purpose' water and waste water distribution and treatment systems. Additionally, a measure that may arise from the study of municipal and industrial discharges may be the requirement for sewerage schemes to have Performance Management Systems in place which will require operational and maintenance programmes. This should assist in identifying any leaks in the system more efficiently. In the design of new sewerage schemes storm water and sewage are kept separate. In old, combined schemes separation of storm water from sewage shall be included in the operational and maintenance programmes.
E_SWMI_003 E_SWMI_009	Prohibit the land-spreading of sludge from sewage treatment plants.	Land spreading of sewage sludge is an appropriate method of disposal provided that the necessary precautionary measures are taken. Current regulations require the close monitoring of soil and sludge and provide limits on heavy metals and on when and where the sludge can be spread in order to reduce risk of pollution. If the land spreading of sludge was prohibited there would be a greater demand for artificial fertilisers and the issue of sewage sludge disposal would need to be addressed perhaps through mechanisms other than land spreading e.g. through incineration.
E_SWMI_003 E_SWMI_009	Run a public information campaign providing details about substances, which are not effectively removed by wastewater treatment plants	The need for additional research in this area has been identified. The results of the research may be used to inform awareness raising programmes.
E_SWMI_003 E_SWMI_009	There is a lack of confidence in local authority policing of section 4 licences for smaller industrial discharges.	Applications for licenses under the Water Pollution Acts 1977 and 1990 are advertised and members of the public can make submissions. Following the granting of a license, members of the public may appeal the license or any of its conditions. Monitoring records of licenses are available for inspection by the public. It is proposed that offices will be set up in each River Basin District. One of the roles of the offices will be to support and co-ordinate the issue of Section 4 licenses by the constituent local authorities.
E_SWMI_008	Request that detailed studies of the vulnerability of groundwater and general water quality from	The National Water Framework Directive monitoring programme commenced in January 2007. This includes monitoring of surface waters and groundwater. Using data from this and other

	licensed discharges be completed and that full consideration be given to these findings when the review of the NAP takes place.	programmes all surface waters and groundwater bodies will be classified and the classifications will be included in the River Basin Management Plans. Following publication of the Plans there will be a review of all licensed discharges taking account of the new environmental quality standards. The review of the Nitrates Action Plan in 2009 will take account of the monitoring results and the new environmental quality standards.
E_SWMI_009	Identified the complex administrative process surrounding the roll out of the Water Services Investment Programme. Noted resource issues in local authorities that have contributed to a significant number of agglomerations still being non-compliant with the Urban Wastewater Treatment Directive. The upgrade of all existing plants that are non-compliant must be initiated immediately and there should be a roll over of the budgets for capital works.	As part of the preparation for the River Basin Management Plan a study on municipal and industrial discharges was carried out. An outcome of this study will be the setting of national priorities for new and up-graded sewage treatment plants. This will inform and expedite the Water Service Investment Programme. Furthermore, new procurement procedures have been put in place to expedite the appointment of design teams and contactors and to shorten timescales for approval of project stages. The Wastewater Discharge (Authorisation) Regulations 2007 require the licensing of municipal discharges by the Environmental Protection Agency. The licenses will require local authorities, inter-alia, to comply with the Urban Wastewater Treatment Directive. Many of the newer waste water treatment plants are being procured using design-build-operate contracts. The conditions of the contracts will ensure that the plants meet the required standards. The study referred to above will identify plants that are non-compliant or are likely to become non-compliant. The works to bring the plants into compliance will be funded by the Water Services Investment Programme.
E_SWMI_009	Where sewage treatment works are overloaded there should be a moratorium on further development in the area served by the plant until it is upgraded.	Where an overloaded sewage treatment plant is causing deterioration in water status or is preventing the achievement of at least good status in receiving water, measures will be required to be taken. These measures may include a moratorium on development in the area served by the plant. However, other measures will also be considered.
E_SWMI_009	Expressed concern that the exemptions set out in Article 7.(1) & 7.(2) of the 'Waste Water Discharge (Authorisation) Regulations 2007' allow time derogations up until 2027 for discharges causing the receiving waters to fail to meet good ecological status, for reasons of "technical feasibility" or because improvements would be "disproportionately expensive".	These exemptions are allowed by the Water Framework Directive but must be fully justified in the River Basin Management Plans. Where exemptions are granted mitigation measures to reduce the impact of the discharges must still be put in place.
E_SWMI_009	Increased penalties should be imposed for breach of IPPC licence.	Penalties are set in legislation. Summary conviction in the District Court has smaller penalties than conviction on indictment in the Circuit Court where penalties can be up to €1 million.
E_SWMI_009	Felt that the report does not adequately address the disposal of sewage sludge, cumulative effects of discharges, increased use of food macerators in domestic kitchens, problems with pharmaceutical and personal care products present in trace amounts, detergent use and discharges.	'Water Matters' did not set out to be a comprehensive report on all water issues. Its aim was to identify significant water management issues and seek the response of the public. When the River Basin Management Plans are being written the additional issues brought forward during the consultation will be considered.

3.2.2 Landfills, quarries, mines and contaminated lands

Submission Reference No.	Issues Identified	Response
E_SWMI_002 E_SWMI_003	Closed down landfills should always be capped. Concern over the lack of response to the clean up of historic illegal landfill sites. Recommend water quality monitoring to be completed where illegal dumping has occurred.	The EPA's guidance to local authorities on identification and remediation of historical and illegal landfills covers all of these issues. It is intended that this guidance will form part of the program of measures under the River Basin Management Plan.
E_SWMI_003 E_SWMI_009	Specific timescales must be set for the characterisation and remediation of historic landfill sites.	The EPA's guidance to local authorities on identification and remediation of historical and illegal landfills covers all of these issues. It is intended that this guidance will form part of the program of measures under the River Basin Management Plan.
E_SWMI_003 E_SWMI_009	Identified the potential conflict of interest with local authorities licensing and regulating quarries and often being substantial customers as well.	Noted
E_SWMI_003 E_SWMI_009	Significant bonds should be required of all current mining operations for rehabilitation of old sites.	This is a requirement under current licensing.
E_SWMI_005	The provision of environmental awareness training to staff and management of deep dry worked excavations and wet worked gravel dredging operations should be mandated by way of planning condition as should the presence of an Environmental Management System for the site operations to include emergency response procedures as may be necessary.	These are specific "planning" issues, however it is intended to include a water education awareness program as part of the program of measures and that issues like this would be included.
E_SWMI_005 E_SWMI_009	ICF noted the significant level of demand of aggregates within Ireland and the current lack of capacity within local authorities to license and regulate quarries effectively with the consequence of significant amounts of aggregates being supplied from unlicensed sites. Expressed concern that demand for aggregates would be met by unauthorised facilities if legitimate industry is unnecessarily restricted in maximising extraction from permitted sites through controlled deep excavation below the water table.	Local authorities have always sought to apply legislative requirements evenly and fairly to all. Programs are in place by all local authorities to identify and bring all non compliant sites up to the required standard.
E_SWMI_005	Highlighted that Water Matters reports specified that quarries of 4 years or older must register with local authorities in Ireland under the Planning and Development Act. They note that this process has now concluded with the exception of a small number of appeals to An Bord Pleanala.	Noted.
E_SWMI_009	Felt that the grouping of activities in this section was inappropriate because of the varied impacts and different requirements for responses.	The SWMI report was primarily a non-technical public consultation document for the general public and this necessitated a simplistic approach in combining pressures. Each pressure will be treated separately in this response document.
E_SWMI_009	It was felt that the focus of this section was on dangerous substances and that other issues	It is intended that these issues will be addressed in the River

	were not adequately addressed e.g. sediment and rock dust from quarrying, impacts of temperature variations between discharge waters and receiving waters etc.	Basin Management Plans.
E_SWMI_009	Current assessments of vulnerability of groundwater to contamination from new landfills do not incorporate variations in rainfall patterns associated with climate change.	River Basin Management plans including all programs of measures will under go “Climate Proofing”.
E_SWMI_009	A significant number of unauthorised quarries have never closed down which is felt to be a problem of lack of enforcement.	Programs are in place by all local authorities to identify and bring all non compliant sites up to the required standard.
E_SWMI_009	Felt it was an omission that only issues with historic mine sites were dealt with in the report.	Pressures not only, from historical but existing mining sites will be addressed under River Basin Management Plans.
E_SWMI_009	There is inadequate planning for the “end of life” phase of current mining operations which can mean that potential ongoing negative effects of these operations are not anticipated.	Closure plans for existing mines are a collaborative process involving the Department of Communication and Natural Resources, the Environmental Protection Agency and the relevant Local Authority. Current environmental standards are applied to all closure plans.
E_SWMI_003 E_SWMI_009	Specific timescales must be set for the characterisation and remediation of contaminated land and the process should be overseen by an independent body to ensure appropriate assessment of local authorities’ own sites.	The Environmental Protection Agency are in the process of preparing Guidance for Local Authorities.

3.2.3 Agriculture

Submission Reference No.	Issues Identified	Response
E_SWMI_003	The Nitrates Regulations must be supported through the establishment and proper enforcement of agricultural bye laws.	Work is currently progressing to develop improved farm inspection protocols to ensure inspections are consistent among all local authorities and appropriate follow-up enforcement actions are implemented which will include the introduction of agricultural bye-laws where necessary.
E_SWMI_003 E_SWMI_008 E_SWMI_009	Felt there were too many inspection bodies and that full inspection and enforcement responsibility should be passed to DAFF. Enforcement and monitoring of the Nitrates regulations should be removed from DAFF to an independent body. If this is not politically feasible enforcement should be overseen by the EPA’s Office of Environmental Enforcement.	Local Authorities are responsible for carrying out inspections of farm holdings for the purposes of the European Communities (Good Agricultural Practice for the Protection of Waters) Regulations. These Regulations are presently being amended requiring inter-alia that the Environmental Protection Agency make recommendations and give directions to a Local Authority in relation to the monitoring and inspections to be carried out. Work is also currently progressing to develop a protocol ensuring consistent inspection is completed by all local authorities. As part of the Single Payment Scheme farmers are required to observe 19 Statutory Management Requirements (SMRs) set down in EU Directives and Regulations on the environment, public, animal and plant health and animal welfare and to maintain land in Good Agricultural and Environmental Condition. This is what is known as cross-compliance. One of the SMRs is the Nitrates Directive. The Department of Agriculture, Fisheries and Food is responsible for on-farm cross compliance checks for the purposes of the Single Payment Scheme.
E_SWMI_003 E_SWMI_009	Inspections under the Nitrates Regulations should be on the spot, without notice.	Local Authorities are responsible for carrying out inspections of farm holdings for the purposes of the European Communities (Good Agricultural Practice for the Protection of Waters) Regulations. Local

	No more than 3 days notice should be provided for inspections.	<p>Authorities do not, generally, give any advance notice when carrying out such inspections.</p> <p>Under current Regulations provided that the purpose of the control is not jeopardised the Department of Agriculture Fisheries and Food may give up to 14 days notice for land eligibility and cross-compliance inspections involving Statutory Management Requirements (SMRs) other than those related to animal identification and registration, food, feed, and animal welfare. For checks involving cattle identification and registration the maximum advance notice is 48 hours provided that the purpose of the control is not jeopardised. For SMRs dealing with feed, food and animal welfare no advance notice may be given. In practice because of a requirement to carry out all inspections under the Regulations at the same time, all cross-compliance inspections, including those relating to Nitrates are carried out without notice. However the farmer is given the opportunity of postponing those elements of the inspection other than those relating to food, feed and animal welfare for a further 48 hours.</p>
E_SWMI_003 E_SWMI_009	Review of the Nitrates Regulations through mini catchment studies must be completed in good time, so that additional actions that are seen as necessary can be incorporated into the River Basin Management Plan.	The effectiveness of the current National Action Programme under the Nitrates Directive is currently being monitored and evaluated by various means including an agricultural mini-catchment programme that has been undertaken by Teagasc. As the mini-catchment programme has only recently got underway it is unlikely that there will be any significant output from the programme that could be incorporated in the forthcoming River Basin Management Plans.
E_SWMI_003	Controls should be placed on the amount of fertiliser that can be purchased. Purchases should only be allowed when justified by nutrient management plans.	Under the European Communities (Good Agricultural Practice for the Protection of Waters) Regulations farm holders are required to prepare an estimate of the annual fertiliser requirement for the holding. In addition farm holders are required to record the quantities and types of chemical fertilisers moved on to or off the farm holding and must retain records for at least 5 years. Failure to comply could result in prosecution and reduction in the single farm payment.
E_SWMI_003	Additional financial incentives must be provided to encourage and promote environmentally sensitive farming.	Additional financial support in the form of agri-environmental schemes, farm storage facilities or technological solutions may have to be considered in specific catchments.
E_SWMI_003 E_SWMI_009	Alternative disposal mechanisms for slurry (and municipal sludge) other than land spreading need to be provided. The use of bio-digesters for the disposal of slurry should be encouraged and funding made available	<p>The Department of Agriculture, Fisheries and Food supported the development of new/emerging technologies by providing grant aid to farmers in 2006 for pilot projects under the Scheme of Investment Aid for Demonstration On-Farm Waste Processing Facilities.</p> <p>A bio-energy scheme from Sustainable Energy Ireland provides grants for installation of Combined Heat and Power plants fuelled by biogas from anaerobic digestion. The scheme includes a start-up grant and a guaranteed price of at least 12 cent per kWh. The scheme has a budget of up to €8 million and will provide up to 30% investment grant support for eligible projects. Further details can be found on www.sei.ie/bio_chpgrants.</p>
E_SWMI_003 E_SWMI_009	Clarify with the relevant statutory agencies the responsibilities for vegetation along the edge of water bodies.	Local authorities maintain Drainage Districts for flood alleviation and land drainage and the Office of Public Works maintains the Arterial Drainage Scheme. However there are large areas where there is no statutory body with a river maintenance responsibility and in this case it is the responsibility of the landowner. In accordance with Ireland's Flood Policy 2004, the Office of Public Works (OPW) will be taking a proactive role in assisting with flood risk management issues where no authority is deemed responsible. There will be a designation process where high flood risk channels can be designated by the OPW for maintenance functions to reduce flood risk. Legislative change is required for this to work fully so it will be a number of years before it is established.
E_SWMI_003	The cleaning of slurry tanks, spreader and	It is an offence under the Local Government Water Pollution Acts 1977 and 1990 to cause or permit any

	spreading equipment from water bodies particularly lakes should be prohibited.	polluting matter to enter waters. This includes slurry from the washing of slurry tanks and spreading equipment. Incidences should be reported to the local authority.
E_SWMI_003 E_SWMI_009	The dumping of animal carcasses into waterways must be addressed (SS note an example of this in Ards Bay Donegal near to a large "Pacific" oyster farm).	It is an offence under the Local Government Water Pollution Acts 1977 and 1990 to cause or permit any polluting matter to enter waters. This includes the disposal of animal carcasses into waterways. The Fallen Animal Collection Scheme provides for the subsidised collection and destruction of fallen bovines and the disposal of certain other ruminant and non-ruminant animals. Cattle movements and on-farm deaths of cattle are recorded on the national Cattle Movement Monitoring System. Where an animal dies on farm, the carcass must be disposed of to a licensed knackery On farm burial of cattle is generally prohibited. Failure to keep accurate records of movement and death of animals under the Statutory Management Requirements 6, 7, 8 & 8a - Identification and Registration of Animals (Bovine, Ovine, Porcine) can result in a reduction in the Single Farm Payment received by the individual when Cross Compliance checking is completed by the Department of Agriculture, Fisheries and Food. Incidences should be reported to the Local Authority.
E_SWMI_008	Noted that the Nitrates Regulations adequately represent farmers' contribution to the achievement of good water status by 2015.	The European Communities (Good Agricultural Practice for the Protection of Waters) Regulations will go a long way to addressing agricultural pollution, however after examination of its effectiveness modifications may be required.
E_SWMI_008	Request that mini catchment studies similar to those being completed to assess the effectiveness of the NAP be completed for other industry types.	Catchment models have been developed to quantify the input of pollution from point sources such as wastewater treatment works and industries with licenses to discharge.
E_SWMI_008	Seek re-opening of the Farm Improvement Scheme by DAFF.	Additional financial support in the form of agri-environmental schemes, farm storage facilities or technological solutions may have to be considered in specific catchments.
E_SWMI_008	Increase in grants available for rainwater harvesting.	An awareness-raising programme may be developed as part of the River Basin Management Plan to promote sustainable water use and encourage rainwater harvesting by all users.
E_SWMI_008	Opposed to excessive restriction on the siting of new housing for farming families where appropriate systems are installed. Recommend that funding is made available for rural dwellers to upgrade their septic tanks.	Where detailed site investigation for an onsite wastewater system indicates that the location fully complies with the planning requirement and meets the requirements of the EPA updated Guidance for Single House Systems then this would not form the basis for a restriction on development. The provision of financial incentives to upgrade existing septic tanks where required is supported by RBD Advisory Councils. This is a policy decision for National Government.
E_SWMI_009	The Nitrates Regulations are inadequate to address nutrient enrichment in specific areas and soil P levels are set too high in the Regulations for some regions. Account must also be taken of areas that are naturally high in nitrates (e.g. Burren River). The new phosphate regulations in Northern Ireland should be examined for possible application. In particular the	The maximum fertilisation rates in the European Communities (Good Agricultural Practice for the Protection of Waters) Regulations (commonly referred to as the Nitrates Regulations) are based on sound scientific evidence. For instance the phosphorus index system for grassland was revised when the Regulations were introduced. The rate of phosphorus that a farmer can apply to grassland depends on the grassland stocking rate, the P index of the soil, the zone the farm is located in, and the amount of concentrates fed to the livestock. Currently all soil is assumed to be phosphorous index 3 unless a soil test indicates otherwise thereby limiting the amount of phosphorous that may be applied to maintenance levels. The effectiveness of the National Action Programme under the Nitrates Directive is being monitored and

	requirement that farmers must prove crop P need with a soil test, or else use zero P fertiliser.	evaluated by various means including an agricultural mini-catchment programme that has been undertaken by Teagasc. The Nitrates Action Programme will be reviewed in 2009 in line with the findings of this monitoring and evaluation.
E_SWMI_009	Felt that little, if any action will be implemented to control the impacts agricultural pollution of waters beyond the implementation of the Nitrates Regulations.	A monitoring and evaluation programme is in place to determine the effectiveness of the National Action Programme and attempts to measure how changes in farm management practices affect water quality. Investigation will also be completed into how much the current National Action Programme will contribute to meeting the objectives of protected areas such as water dependent Special Areas of Conservation, shellfish, bathing and drinking water areas. Additional more stringent measures may be needed in these areas which may include the establishment and enforcement of agricultural bye-laws. Supplementary actions may also need to be undertaken in other areas to address agricultural pollution.
E_SWMI_009	Farmers in REPS must be encouraged to maintain a farm nutrient balance.	The Rural Environment Protection Scheme (REPS) is a scheme designed to reward farmers for carrying out their farming activities in an environmentally friendly manner and to bring about environmental improvement on farms. Farmers in REPS must comply with 11 basic measures, one of which is to follow a farm nutrient management plan prepared for the total area of the farm. Failure to comply with the conditions of the Scheme will result in penalties and a consequent loss of part or the whole payment for the year, farm holders who incur penalties will be subject to increased inspections.
E_SWMI_009	Investigation into the potential to use the Rural Development Programme (Department of Community, Rural & Gaeltacht Affairs, 2006), to introduce supplementary measures, should be completed.	The Government is committed to implementing a strategy for rural development on the basis of an inclusive approach to sustainable development, the integration of policies, a regional dimension and partnership with the rural community. A number of funding streams are available under the CAP Rural Development Programme 2007-2013 including CLÁR (Ceantair Laga Árd-Riachtanais). CLÁR provides funding and co-funding to Government Departments, State Agencies and Local Authorities in accelerating investment in selected priority developments. These investments support physical, economic and social infrastructure across a variety of measures. The measures introduced under the programme reflect the priorities identified by the communities in the selected areas whom the Minister consulted at the outset. Areas targeted under the CLÁR programme includes parts of Counties: Carlow, Cavan, Clare, Cork, Donegal, Galway, Kerry, Kilkenny, Laois, Limerick, Longford, Louth, Mayo, Meath, Monaghan, Offaly, Roscommon, Sligo, Tipperary, Waterford, Westmeath, Wicklow and all of County Leitrim. The Farm Improvement Scheme, which was provided for in the 2007 – 2013 Rural Development Programme of Ireland, included objectives and measures that are beneficial to the environment and prevention of water pollution. All potential methods of resourcing measures will be investigated.
E_SWMI_003 E_SWMI_009	The physical disturbance to water bodies, created by agricultural activities (e.g. animal watering sites and uncontrolled access), is not addressed in the document and must be regulated. The Land Drainage Act still allows for the drainage and ‘reclamation’/ infilling of wetlands.	The physical disturbance to water bodies from agricultural activities was addressed in the physical modifications section of ‘ <i>Water Matters – Have your say!</i> ’ reports. Farmers in the Rural Environment Protection Scheme are required to fence off lakes and watercourses to prevent stock trampling. Supplementary measures to tackle overgrazing and stock trampling in specific areas will be considered as part of the Programme of Measures. The new Floods Directive will introduce a new method of assessing and controlling land drainage activities.

3.2.4 Wastewater from unsewered properties

Submission Reference No.	Issues Identified	Response
E_SWMI_003	Guidance on best practice is ineffective unless it is transposed into regulations.	Agreed. There is an overall need to tighten controls on the siting, installation and maintenance of onsite wastewater systems with national standardisation of site suitability testing and allowable practice.
E_SWMI_003 E_SWMI_009	A national system of licensing for proprietary systems with an inspection regime, clear responsibility for owners and effective penalties must be introduced. Percolation tests must be made mandatory and be completed by independent qualified scientists (with a charge included in the planning application fee). There should also be a system of accreditation and licensing for septic tank installation companies and sludge removal operators.	<p>Proprietary systems are currently certified under the Agreement System. Their suitability will often be site specific and they will normally be assessed on this basis.</p> <p>Recommendations are being included in the measures for onsite wastewater systems which include:</p> <ul style="list-style-type: none"> • Approval system for proprietary units. • Establishment of a National / Local Register of approved, qualified site assessors. • Standardisation of site investigation requirements across all Local Authorities – based on the EPA updated Guidance document for Single House Treatment Systems. • Certification of onsite wastewater treatment system installation. <p>The measures include recommendations for Bye Laws relating to duties of owners of onsite wastewater systems to ensure maintenance and regular de-sludging.</p> <p>Sludge removers already come under control under the Waste Management Act and must hold a current licence to remove septic tank sludge for disposal from systems.</p>
E_SWMI_003 E_SWMI_009	Highlighted the importance of planning controls that restrict the building of unsewered properties in areas where the geology and soil are unsuitable for percolation-based treatment systems. There should be improved and more integrated planning for the siting of septic tanks.	<p>Pathway risk mapping combining the geology, subsoil permeability and aquifer bedrock type with regard to suitability of general location for on site wastewater treatment systems will be provided to each Local Authority. This will indicate generally high risk areas for the location of such systems. However, even where risk mapping indicates a lower risk category, detailed site investigation by qualified assessors, in accordance with the requirements of the updated EPA Guidance document for single house systems, will still be required as part of the planning process to confirm site suitability.</p> <p>The pathway risk mapping will be combined with a pressure layer map of existing system locations to identify high risk areas which should be targeted for inspections by the Local Authorities and necessary upgrading as appropriate.</p>
E_SWMI_003 E_SWMI_009	All proprietary treatment systems should deliver tertiary treatment.	<p>Research undertaken through the EPA Environmental Research Technical Development Initiative (ERTDI) Programme has indicated that a correctly installed septic tank or proprietary treatment system with a correctly installed percolation area on a suitable site will adequately treat wastewater to the required standard without the need for tertiary treatment.</p> <p>However, where proprietary treatment systems result in a discharge to surface waters or where the area is particularly sensitive, such as a groundwater dependent ecosystem for example, then tertiary treatment may be appropriate. The requirement for tertiary treatment will be site specific.</p>
E_SWMI_003 E_SWMI_009	If sewage infrastructure is installed near an unsewered property connection should be	The requirement for properties adjacent to existing sewer networks to connect is included in the measures for onsite wastewater treatment systems. The provision of financial incentives is supported by

	offered at a reduced rate or should be free.	the RBD Advisory Councils. This is a policy decision for National Government.
E_SWMI_003 E_SWMI_009	Noted the difficulties with biocycle units, some of which are unsuited to use in irregular habitation situations (i.e. holiday homes), as they are subject to “shock loading” when used.	All proprietary treatment systems are biological systems and will reduce in efficiency through long periods of disuse. Large scale systems are subject to control by licence under the Local Government (Water Pollution) Acts 1977 and 1990. Single house systems are generally controlled under the planning requirement for maintenance contracts for such systems. Stricter enforcements of the maintenance contracts is required and will be recommended in the measures programme.
E_SWMI_003 E_SWMI_009	Awareness raising is required on the effects of household chemicals on septic tank functioning e.g. bleach. Phosphates should be banned from domestic cleaning products.	This issue together with all water matters issues will be the subject of National and Local Awareness campaigns. Voluntary agreements exist to have phosphate free detergents with major suppliers for certain applications. The public awareness programme will highlight this and other issues. In a well designed, well located and well sited percolation area phosphorous will be largely removed by the percolation process.
E_SWMI_003 E_SWMI_009	Local Authorities should encourage alternative wastewater treatment systems for unsewered properties, such as wetlands and reed beds.	Much research has been undertaken on the use of alternative systems such as wetlands and reed beds. Some limitations have been identified such as reduced uptake of nutrients during dormant plant growth periods and not all sites may be suitable for such systems. The use of such systems will be site specific and will be assessed on a case by case basis and approved as appropriate.
E_SWMI_003 E_SWMI_009	Strict control on land spreading of septic tank contents.	An operator involved in the removal of septic tank sludges must be an approved Waste Contractor under the Waste Management Act. Septic tank sludges must be treated before disposal and are generally treated in Urban Waste Water Treatment Plants. Local Authorities are including septic tank sludge into their Waste Management Plans. Spreading of sewage sludge on agricultural land is controlled by the Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) regulations 2001 and also under Local Authority Sludge Management plans.
E_SWMI_009	Seek clarity and elaboration on the statement that “Legislation will be amended to clarify and elaborate the statutory basis for the licensing of discharges to soil”.	The DEHLG will be advancing legislation and guidance on various issues during 2008 and 2009 and it is anticipated that issues surrounding unsewered properties will be addressed.

3.2.5 Forestry

Submission Reference No.	Issues Identified	Response
E_SWMI_003 E_SWMI_009	Called for a revision the 1946 Forestry Act to remove the requirement to replant in all felled areas, so that sensitive areas and those unsuitable for Forestry are not replanted on.	The Programme of Measures for forestry includes a recommendation to revise the relevant sections of the 1946 Act to exclude the requirement to replant on certain sites (yield class < 14m ³ /ha/yr suggested) or in sensitive areas (such as Freshwater Pearl Mussel catchments). Consideration must be given to any beneficial effect of restocking such as the uptake of nutrients from previous crops. The issue of alien species invasion (such as Rhododendron) must also be considered.
E_SWMI_009	- Identified the need to comply with recent ruling	European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001.

<p>E_SWMI_003</p>	<p>from the European Court of Justice by implementing Environmental Impact Assessment to all sub-threshold afforestation in or near protected sites or species.</p> <ul style="list-style-type: none"> - Proposed the nitrates regulations should be amended to include forestry activities. - Restrictions governing clearfelling must be introduced with strict controls of coup sizes in sensitive areas. - Move away from over-reliance on conifers and increase diversity in planting with an increased broadleaf component. - Low impact silvicultural systems should be implemented and there should be a shift away from over reliance on planting on marginal wet land. - Increased use of effective buffer zones should be required. - The use of high mycorrhizally active species in the vegetation of engineered buffer zones to ensure their long-term efficiency (such as salix, alder and aspen) should be promoted. 	<p>(S.I. No. 538 of 2001) introduced the Forestry Consent Scheme. This allows for sub-threshold afforestation to be subject to Environmental Impact Assessment for specific proposals at the discretion of the Minister. All protected sites and their catchments would need to be identified (using the Environmental Protection Agency Register of Protected Areas with continuous updates by National Parks and Wildlife Service for habitats). All applications to the Forest Service (FS) are checked for proximity or inclusion in designated areas by the FS. If they are the application is referred to the relevant statutory body. Updates of these areas are also updated on FS databases.</p> <p>Fertilisation in relation to forestry is a separate issue and is covered by the Forest and Water Guidelines, the Forestry Schemes Manual, Codes of Good Practice and by the European Communities (Aerial Fertilisation) (Forestry) Regulations 2006, S.I. No. 592 of 2006.</p> <p>Control of clearfelling is managed through licensing by the Forest Service under the 1946 Forestry Act. Either Limited or General Felling Licenses are issued with conditions. Consultation between Forest Service and National Parks and Wildlife Service takes place where sensitive areas are concerned. In general smaller coup sizes are being felled and felling plans take account of the sensitivity of the catchment receptors in their design. The FS harvesting guidelines specify area limits for clearfelling. Coillte Teoranta follows this policy in accordance with the Sustainable Forest Management Protocol. The long term effect of this policy is to produce uneven aged forest stands.</p> <p>Presently the national forest estate comprises over 24% broadleaf species and their planting is supported through Forest Service initiatives and grant aid. However, planting is a commercial enterprise and market driven, and this together with site characteristics often dictates species mix. Low yield class sites will not attract grant assistance or yield commercial crops which will result in a move to better lands and away from marginal soils.</p> <p>Buffer zones are required to be established under the Forestry Schemes Manual and Forest Service Guidance documents. As older plantations are felled and restocked buffer zones are being introduced as part of the overall management of the site.</p> <p>Consideration has been given to the use of different species in buffer zone areas. However, the selection is often site specific as many plantations are at high elevations where broadleaf species may not establish. The Forest Service together with Woods of Ireland have developed a Native Riparian Woodland Scheme document which advocates the use of broadleaf species in riparian zones (<i>expected completion June 2008</i>).</p>
<p>E_SWMI_009 E_SWMI_003</p>	<p>Identified that the Water Matters report was inaccurate where it referred to acidification being a result of what is normally known as ‘scrubbing’, without referring to the acidic nature of the needles of Sitka Spruce which cause the more</p>	<p>Studies on acidification of waters in Ireland have generally identified coniferous stands with closed canopies (generally greater than 14 years) on poorly buffered sites as being the primary conduit for acidification impact. This arises from scavenging of both anthropogenic pollutants from the air and also sea salts from storm events. The presence of forests per say on such poorly buffered sites is being considered in the context of acidification impacts. This includes litter material and the</p>

	<p>significant portion of the acidification problems associated with forestry.</p> <p>The report also omits the issue of habitat loss as a major problem.</p>	<p>point is noted. Broadleaf species also have potential to cause acidification on poorly buffered sites although to a lesser extent and this is also being considered in the measures for forestry. The wood derived from Sitka Spruce is known as White Deal and is the wood type in most demand by the market.</p> <p>The point about habitat loss is noted and will be referred to in the RBMP. Some work has been undertaken on the feasibility of restoring blanket bogs post clearfelling of forestry and this will be considered where feasible as a measure.</p>
E_SWMI_009 E_SWMI_003	<p>Reference in the reports to forestry problems being historic is misleading. The recently published Coford “Bioforest” Project Report raises concern that adequate attention is not being paid within current forest policy and practice to the threats and pressures being posed by current forestry practices on biodiversity and water quality.</p>	<p>It is recognised that forestry issues are ongoing. However, many of the issues do relate to older forest plantations, now at harvest stage, which were established prior to the introduction of the current suite of Forest Service Guidelines, the Code of Good Forestry Practice and the Forestry Schemes Manual. These resulted from progressive ongoing research into forests and associated water quality issues. A recommendation has been made to update these documents to reflect recent research work and cross referencing and also to introduce new guidance specifically for the management of older plantations. Forest Service Policy since the 1980s has been to move forestry away from the more difficult peat based sites to more mineral soils and this is reflected in the change in forest soil type locations since that time (National Forest Inventory). Forest Service guidelines are regularly updated based on best available knowledge at the particular time</p>
E_SWMI_003	<p>‘Tunnelling’ where tree growth on a river bank blocks light to the river must be prevented.</p>	<p>Tunnelling is largely a phenomena of older plantations planted prior to Forest Service Guidelines. Newer plantations, post 1980s’, have established buffer zone widths. As part of felling licenses issued by the Forest Service riparian zones and buffer zones are required to be introduced under any restocking plan. Some shading of streams is desirable to provide refuge for fish species and planting of buffer zones will include selected planting with suitable species. Installation of buffer zones in both afforested and reforested sites is now mandatory, which will eliminate the tunnelling effect over time.</p>
E_SWMI_009 E_SWMI_003	<p>The use of forestry land for the spreading of sewage sludge is a serious concern.</p>	<p>For general forestry the application of sewage sludge is not common practice as there are significant issues with access and nutrient quality associated with its use. Forest Service have requirements specifying the use of slow release fertilisers in their Guidance documents. Sewage sludge has been used in experimental coppice willow plots but its use as a general purpose forestry fertilizer would require significant study and evaluation.</p> <p>Note for comment: <i>Spreading of sewage sludge is controlled by the Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations 2001 and also under Local Authority Sludge Management plans. However, the Regulation specifically refers to “agriculture” in the context of growing commercial food crops and not to forestry. A revision to include for forestry application could be considered.</i></p>
E_SWMI_010	<p>Felt the report was too negatively focused. Noted the positive impacts of forestry:</p> <ul style="list-style-type: none"> • Riparian zone planting provides stability, shelter and food for aquatic life • Planting of buffer zones protects against sources of pollution 	<p>The National Forest Estate covers a substantial surface (10%) of the country. It is generally located in the upland areas of catchments on the smaller feeder streams which are important salmonid spawning and nursery habitat locations. Whereas there are many positive benefits from forests there is significant potential to impact on water quality if forestry is not managed in a sustainable manner.</p> <p>Much of the commercial forest estate in Ireland was planted in the early 1960s prior to the introduction of Codes of Practice and good guidance by the Forest Service. As such, riparian</p>

		zones and buffer zones would not have been provided and planting and drainage occurred down to stream banks. It is this forestry which is now being felled to provide wood material. The management of this older forestry is recognised as the main potential pressure on water quality. Forestry measures for the River Basin Management Plans (RBMPs) include a recommendation for specific guidance for the management of these older forest stands which will include a suite of measures to be used on a case by case basis.
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3.2.6 Usage and discharge of dangerous substances

Submission Reference No.	Issues Identified	Response
E_SWMI_002 E_SWMI_003 E_SWMI_009	Concerned about the addition of fluoride to water supplies.	This matter was reviewed recently by the Department of Health and it was decided that the current policy should be retained subject to some changes, the most significant of which was the reduction in the concentration of fluoride.
E_SWMI_003 E_SWMI_009	When an IPPC license is suspended or revoked the business must cease to operate and this must be enforced through a straightforward legal process.	There is a process set out in the IPPC legislation for the revoking of a license. It is illegal for a business to operate without a license if its operations determine that it requires one.
E_SWMI_003 E_SWMI_009	Details of all licences for use and discharge of dangerous substances should be made easily accessible on-line.	All licences are currently available for viewing by the general public on the Environmental Protection Agency website http://www.epa.ie/whatwedo/licensing/ .
E_SWMI_009 E_SWMI_003	Prohibit the use of phosphates in detergents.	The approach to this matter in Ireland has been to work with industry to voluntarily reduce the amount of phosphate in detergents. Studies for the River Basin Management Plans indicate that detergents account for only a very small proportion of the phosphates discharged to surface water or groundwater bodies.
E_SWMI_003 E_SWMI_009	National awareness campaign for the public on prevention of use / misuse / improper disposal of dangerous substances including pesticides.	In any awareness campaign on this matter the impact of dangerous substances on the waster environment would be only one of several aspects to be addressed. At present, the Health and Safety Authority carries out awareness raising work under the remit of REACH (Registration, Evaluation and Authorisation of Chemicals). The Department of Agriculture, Fisheries and Food meets regularly with farmers and growers in relation to pesticides usage. On an international level the Global Harmonisation System for Classification and labelling of chemicals is improving chemical labels to make them more easily understood.
E_SWMI_003 E_SWMI_009	Synthetic pyrethroid in sheep dip should be suspended or banned (its use has been suspended in Northern Ireland, pending a review of its impacts on the aquatic environment).	This matter is being kept under review by the Irish Medicines Board. Targeted monitoring is taking place to investigate its impact.

3.2.7 Physical modifications

Submission Reference No.	Issues Identified	Response
E_SWMI_001	Waterways Ireland seeks to ensure that when the River Basin Management Plans are drafted its statutory functions are fully incorporated with minimal bureaucracy through agreed methodologies. Look to involvement in developing and maintaining a programme of measures and methodologies such as best practice guidelines for dredging and aquatic weed management necessary for sustainable River Basin Management Plans.	Comments are noted. Measures and controls to ensure that hydromorphological conditions are consistent with the achievement of the required ecological status have to be established in response to Article 11(3) of the Water Framework Directive. However, as with proposals for all significant legislation a Regulatory Impact Assessment will be carried out on any significant regulatory proposals. The assessment process will involve consultation with relevant stakeholders such as Waterways Ireland.
E_SWMI_003 E_SWMI_009	Called for the introduction of a comprehensive registration and authorisation system to control the impact of physical modifications. Noted that the Office of Public Works should not be the statutory authority to administer new regulations.	A registration and authorisation system to control the impact of physical modifications is required by WFD. Measures and controls to ensure that hydromorphological conditions are consistent with the achievement of the required ecological status have to be established in response to Article 11(3) of the Water Framework Directive. The competent authority for administering the necessary measures and controls has yet to be determined.
E_SWMI_003 E_SWMI_009	Headwater habitats need to maintained and protected to act as ‘sponges’ to reduce the likelihood of flooding downstream.	There is an obligation under the WFD to prevent deterioration of status in all waters.
E_SWMI_003 E_SWMI_009	Expressed concern about building pressures on floodplains and how this would be addressed. The implementation of the Floods Directive (specifically the preparation of Flood Management Plans by the OPW) should be fully integrated with the implementation of the WFD and the development of river basin management plans.	An objective of the Floods Directive is to establish a framework for the management of flood risks, aimed at reducing the negative impacts of floods on the environment (including water). Similarly, an objective of the Water Framework Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater that, contributes to mitigating the effects of floods. The administrative units are the same for the two Directives, i.e. the Floods Directive must be implemented on the level of the river basin districts (which includes not just river basins and sub basins but also associated coastal areas). The implementation cycles and reporting mechanisms of both directives are synchronised as regards their timetables. For example, flood risk management plans are to be completed and published by 22 nd December 2015, corresponding with the first review and update of river basin management plans and their programmes of measures. Also, the public participation aspects of the Floods Directive must be coordinated with those of the Water Framework Directive.
E_SWMI_003 E_SWMI_009	Called for Environmental Impact Assessment to be carried out before flood prevention measures are considered.	Current practice is for flood alleviation projects to fully comply with Environmental Impact Assessment (EIA) legislation. Accordingly, all large scale flood relief projects conduct an EIA and smaller scale projects while below the threshold for EIA, typically carry out other forms of ecological assessments particularly where works could affect a Special Area of Conservation or a Special Protection Area.

E_SWMI_003	Arterial drainage to improve agricultural productivity which is encouraged by the Land Drainage Act has an impact on hydrology and flow patterns.	Arterial drainage may impact on hydrology and flow patterns. However Arterial Drainage Schemes were traditionally carried out on a catchment basis to allow for the fact that the whole catchment acts as a unit. As required by the Arterial Drainage Acts 1945 to 1995, no flood alleviation or land drainage works are carried out without due regard to the downstream effect of the proposal.
E_SWMI_003 E_SWMI_009	A structured programme to address the 'rehabilitation' of previously drained rivers is needed.	Restoration measures are being considered as part of the measures and controls required by Article 11(3) of the Water Framework Directive to ensure that hydromorphological conditions are consistent with the achievement of the required ecological status.
E_SWMI_007	<p>Any measures in relation to physical modifications have the potential to impact significantly on OPW Programme of Flood Relief Schemes and statutory maintenance of these schemes and arterial drainage works.</p> <p>Note that some regulation of physical modifications may be necessary but are of the strong view that OPW as a Statutory Undertaker executing works in pursuance of government policy or statutory duties should be exempt from the licensing regime.</p> <p>It is envisaged that the OPW will make the Annual Drainage Maintenance Work Programmes available to the RBDs and will work closely with these forums in relation to water management issues.</p>	Comments are noted and will be considered in the development of measures and controls in relation to physical modifications.
E_SWMI_008	Worried about the increased frequency of flash flood events and called for the introduction of national river maintenance programme.	Flood risk management plans have to be prepared as part of the Floods Directive, and measures prepared to deal with areas identified as being at risk of flooding.
E_SWMI_009	<p>Recommend that the principle of urban Total Impervious Areas (TIA) be accepted as another aspect of physical modifications.</p> <p>Local authority planners should be required to look at new development proposals with a view to minimising the TIA values by the incorporation of greenbelts, parks, sod roofs and other measures which have the capacity to buffer peak flood run-offs and their associated silt and toxin loads.</p>	Sustainable Drainage solutions continue to be developed and integrated by local authorities as part of their planning policies e.g. the authorities involved in the Greater Dublin Strategic Drainage Study.

3.2.8 Abstractions (see page 34)

3.2.9 Invasive alien species

Submission Reference No.	Issues Identified	Response
E_SWMI_003	Questioned how a waterbody would be deemed to reach good ecological status if an alien species was present in it that could not be removed.	A water body will not achieve high ecological status if an invasive alien species is present. However, good ecological status may be achieved if an alien species is present but is not causing any detrimental ecological impact.
E_SWMI_009 E_SWMI_003	Called for regulation of the ornamental plant and animal trade.	The Department of Environment, Heritage and Local Government are currently considering the introduction of regulations under Section 52(6)(a) of the Wildlife Act 1976 to prohibit the possession or introduction of species of bird, animal or flora that may be detrimental to native species.
E_SWMI_003	Noted that recommendations from the Quercus invasive species report should be implemented and resourced on an all island basis http://www.jncc.gov.uk/PDF/BRAG_NNS_Stoke setal-InvasiveSpeciesinIreland.pdf	The National Parks and Wildlife Service and the Northern Ireland Environment Agency jointly commissioned the ‘Invasive Species in Ireland Project’ in 2006. The project developed a risk assessment process to identify non-native invasive species currently in Ireland that pose the highest risk, and those species which have the potential to arrive here. Management and contingency plans have been produced for the most high risk species. Recommendations, management plans and codes of practice from the invasive species study will be incorporated into the river basin management plan action programme.

3.2.10 High quality areas

Submission Reference No.	Issues Identified	Response
E_SWMI_002 E_SWMI_006	Emphasised the importance of wetlands and the need for their incorporation into the catchment management process.	The importance of wetlands is recognized in the WFD. They are assessed as part of the groundwater risk to groundwater dependent terrestrial ecosystems. Designated wetlands have also been identified for inclusion as high status sites in need of protection although the NPWS database is not fully up to date.
E_SWMI_009 E_SWMI_003	The possibility of a ‘High Quality Area’ protective designation should be explored.	Sites at “high status” within water bodies, for example Q4-5, Q5, habitat designated areas etc. are being identified and will be included in the RBMPs as special areas requiring stricter control to ensure no deterioration in status. The location and protection of these sites will be integrated into Local Authority Plans and Programmes. It should be noted that not all sites have been identified and mapped by NPWS and a recommendation is being made that NPWS develop an online database of these sites, regularly update it and provide such updates to Public Authorities and other statutory bodies.

3.2.11 Climate change

Submission Reference No.	Issues Identified	Response
<p>E_SWMI_009 E_SWMI_002 E_SWMI_003 E_SWMI_004</p> <p>E_SWMI_009 E_SWMI_002</p>	<p>Felt climate change was not dealt with adequately in the reports.</p> <p>Noted some of the potential effects of climate change:</p> <ul style="list-style-type: none"> • Reductions in rainfall will result in less water being available to dilute organic effluent. • Increased temperatures will affect water oxygen levels. • Increased vulnerability of groundwater to pollution from increased runoff and also from incursion by sea water resulting from increased sea levels. <p>Impacts on wetland ecosystems that are sensitive to changes in water balance.</p>	<p>Consideration of climate change within the Water Framework Directive programme was at a very early stage at European level when the ‘<i>Water Matters</i>’ report was prepared.</p> <p>An approach has now been agreed and this issue will be addressed in the River Basin Management Plans.</p> <p>Comment noted.</p>
<p>E_SWMI_009 E_SWMI_003 E_SWMI_006</p>	<p>Proposed that the draft river basin management plan is climate change ‘proofed.’</p>	<p>The European level recommendation is that the 2009 RBMPs will be climate ‘checked’, i.e. issues will be assessed based on broad climate change information, while later plans will be climate ‘proofed.’</p>
<p>E_SWMI_004</p>	<p>Recommend findings from studies on catchment based changes due to climate change, produced for the EPA, be included in the River Basin Management Plans e.g.</p> <p>Murphy, C and Charlton, R (2006) “Climate change impact on catchment hydrology and water resources for selected catchments in Ireland”.</p> <p>Murphy, C. and Charlton, R. (2007) “<i>Climate Change and Water Resources in Ireland</i>” In Sweeney, J. (ed) <i>Climate Change: Refining the Impacts</i>, Environmental Protection Agency, Ireland, Government Publications, in press.</p>	<p>Agree.</p>
<p>E_SWMI_009</p>	<p>Expressed concern for the potential for climate change to be used a ‘catch-all’ excuse for not achieving good ecological status.</p>	<p>Climate change will not be used as a ‘catch-all’ excuse for achieving good ecological status but its consideration may lead to more stringent future limits.</p>

3.3 Additional issues identified by participants during the public consultation process

The following submissions were grouped into issues that were not specifically covered in ‘*Water Matters*’ reports.

3.3.1 Aquaculture

Submission Reference No.	Issues Identified	Response
E_SWMI_009 E_SWMI_002 E_SWMI_003	<p>Called for aquaculture to be considered as a national significant water management issue.</p> <p>Concern that impacts surrounding aquaculture enterprises had not been dealt with in the Water Matters reports</p>	<p>From the recent public consultation on ‘<i>Water Matters – Have your say!</i>’ reports a number of participants identified that aquaculture should be considered as a national significant water management issue. Although aquaculture was included in the booklet as part of the diffuse and morphology activities, aquaculture was not considered as a separate significant water management issue. Where appropriate it will be dealt with as a separate topic in the River Basin Plan.</p>
E_SWMI_003 E_SWMI_009	<p>Moving mussel seed from Lough Foyle to Lough Swilly for bottom cultivation has brought disease. This is a nationwide problem that requires attention.</p>	<p>Since 2003 a joint management strategy for the exploitation of mussel seed in the Irish Sea, Carlingford Lough and Lough Foyle has been implemented north and south. Dredging of mussel seed by Irish registered vessels and reseedling of the seed for the purposes of on-growing within the exclusive fishery limits of Ireland may take place only on issue of a licence under the Mussel Seed (Conservation of Stocks) Order 1987 as amended by the Mussel Seed (Conservation and Rational Exploitation) Order 2003. In Northern Ireland, dredging and movement of seed mussels is controlled by means of a licence granted by the Department of Agriculture and Rural Development under the Sea Fish Conservation Act 1967. All movements of mussel stocks for on-growing/reseedling must comply with any national and EU fish health legislation currently in force and must be accompanied by the appropriate health certification.</p>
E_SWMI_009	<p>Expressed concern over the range of impacts of aquaculture. They noted impacts from salmon farming such as:</p> <ul style="list-style-type: none"> • Increased nutrient loading and organic pollution around cages • Unauthorised disposal of waste • Breaches of sea lice limits/infection of wild fish • Decline of wild salmon and sea trout numbers • Use of dangerous substances <p>Poor maintenance of inter-tidal oyster trestles. Mussel bed cultivation and associated dredging activities can affect biodiversity and indigenous species.</p>	<p>Shellfish cultivation and harvesting activities can result in morphological impacts. Finfish aquaculture has a number of potential impacts such as increased nutrient loading and organic pollution around cages. There are also a range of substances used in finfish aquaculture including veterinary medicines (primarily antibiotics, and sea lice treatments), disinfectants, feed additives and antifoulants. Work is underway to develop a national approach for regulating chemical use and discharge for finfish aquaculture in Ireland. A new sea lice control strategy has also been launched, the strategy is available from: http://www.agriculture.gov.ie/publicat/publications2008/SeaLiceControlStrategy.doc</p>

3.3.2 Marine and estuarine issues

Submission Reference No.	Issues Identified	Response
E_SWMI_009 E_SWMI_003 E_SWMI_006	Felt limited attention was given to pressures on the coastal zone. Regulation of the coastal zone is poorly enforced and Ireland must implement a coherent Integrated Coastal Zone Management Strategy for the area covered by the WFD (1 nautical mile from shore).	' <i>Water Matters</i> ' reports drew attention to the various pressures on estuarine and coastal waters, particularly with respect to physical changes. It drew attention to the absence of comprehensive system of control of physical modifications. In preparation for the River Basin Management Plan measures are being investigated for application in Ireland's transitional and coastal waters, one of which is Integrated Coastal Zone Management. Recommendations for a more structured national framework for the regulation of coastal activities are being outlined for consideration. A review of national coastal regulation and integration is identified under the 'Sea Change' programme published by the Marine Institute.
E_SWMI_003 E_SWMI_009	A full-time fisheries officer for Lough Swilly is needed. Trawlers of over 70 feet should be prohibited in Lough Swilly.	These are national policy issues and are outside the remit of the River Basin District project.
E_SWMI_009	Queried the support of departments regulating the marine environment to the implementation of the Water Framework Directive.	River Basin Management Plans will help ensure appropriate consideration of the marine environment during regulation. All Departments will be required to comply with programmes of measures defined to meet the WFD objectives. Responsibilities relating to the regulation of coastal developments/ activities are currently being re-organised at Government level. A structured national regulatory framework should clearly define the responsibilities of each Department.

3.3.3 Economics

Submission Reference No.	Issues Identified	Response
E_SWMI_009	Felt that economics should have been dealt with more thoroughly in the reports and that there was no provision of estimates of the costs of meeting the objectives of the WFD, or how the authorities intend to recover those costs.	An economic analysis of water use was completed for Article 5 of the Water Framework Directive. ' <i>Water Matters – Have you say!</i> ' reports were written to inform the public of the significant water management issues in the River Basin District and seek their response. It was premature to deal with issues surrounding economics and assessment of cost effectiveness of measures in these initial ' <i>Water Matters</i> ' reports, these issues will be dealt with the draft river basin management plan. The Water Services National Training group has commissioned the development of guidance and training for local authorities in the use of economics in the objective setting and decision making processes to determine the most appropriate and cost effective combination of measures to be implemented. This technical guidance and training will be rolled out in late 2008 and will be available as a background document to the draft river

		basin management plan. Substantial resources are committed going forward to ensure local authorities have the resources to implement the requirements of the Water Framework Directive.
E_SWMI_009	The application of disproportionate cost analysis to justify alternative objectives to the achievement of Good Status by 2015 should be applied taking into account Common Implementation Strategy guidance on Economics and the Environment (Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance Document no. 1, <i>Economics and the Environment – The Implementation Challenge of the Water Framework Directive</i>).	The issue of disproportional cost analysis is currently being actively debated at EU level. The methodology for the application of disproportionate cost assessments will be clear and transparent and based on Common Implementation Strategy guidance on Economics and the Environment.

3.3.4 Water charging

Submission Reference No.	Issues Identified	Response
E_SWMI_003	Felt water charging is necessary for all users.	The Government's National Water Pricing Policy Framework, 1998 requires all non-domestic customers to be charged for water and wastewater services. This is in line with national and EU policy on the 'polluter pays' principle. The Framework also provides for the recovery of domestic capital costs through the Exchequer and domestic operational costs through the Local Government Fund. This is permitted under the Water Framework Directive, as it is an established practice that does not compromise the objectives of the Directive.
E_SWMI_008	Stated it was inappropriate for farmers to pay for water leakage outside the farm gate, much of which is due to historical under investment by local authorities in infrastructure.	It is currently a legal requirement that local authorities provide 'fit for purpose' water distribution systems and ensure leakage detection programmes are implemented. The universal installation of water meters for non-domestic customers is required to ensure that users are charged fairly and is due to be completed by the end of 2008.

3.3.5 Development pressure

Submission Reference No.	Issues Identified	Response
E_SWMI_009	Development and planning is the most serious threat to water quality and lack of integration of planning is core to this.	Following the adoption of the River Basin Management Plan by Local Authorities in 2009 it will be a legal requirement that County Development Plans, Regional Development Plans and Local Area Plans be integrated with the River Basin Management Plan, i.e. the preparation and implementation of land use policies will have to take account of their potential impact on water quality. Guidance on this issue for planning authorities is being prepared by DEHLG and will be available in 2009.
E_SWMI_008	Note the lack of coherent town planning.	
E_SWMI_005	Strong enforcement policy is required by all planning authorities, who in turn must be sufficiently resourced, both financially and in terms of personnel, to ensure developments of all kinds comply with planning and development legislation.	

3.3.6 Resources

Submission Reference No.	Issues Identified	Response
E_SWMI_002 E_SWMI_003 E_SWMI_009	There was concern about the current capacity of local authorities and their ability to act as the competent authority for the implementation of the WFD. Acknowledge the resource limitations under which local authorities operate. There is a recognised deficit of biologists and ecologists in Environment Sections in local authorities. There should be a full review of the current public sector staffing policy.	The philosophy of the Water Framework Directive is to have a holistic approach to the maintenance and improvement, where necessary, of the water environment. Local authorities have a very significant involvement in this work at present, e.g. the collection and treatment of sewage, the abstraction and treatment of water for drinking supplies, the investigation and elimination of water pollution by the industrial and agricultural sectors and looking after aquatic amenities such as beaches. Therefore, it is logical that local authorities would be given the central role in implementing the directive. While there are many staff and considerable money devoted to these tasks there will always be a desire of improved performance and additional resources would help in this regard.

3.3.7 Public participation / education / awareness

Submission Reference No.	Issues Identified	Response
E_SWMI_002 E_SWMI_009 E_SWMI_002	<p>There is a lack of awareness of the value of water by the general public. Called for a national TV campaign on water and its importance, and the prohibition of phosphorous in detergent could be used as a 'carrier' for wider public relations relating to the WFD.</p> <p>Local activism should be fostered and there should be reference to community engagement in catchment management initiatives.</p>	<p>A national campaign could contribute to the raising of awareness of the value of water. Consideration is being given to the merits of such a campaign. Work will be required to determine the scope of such a campaign, the audiences to be targeted, the messages to be conveyed, and the most appropriate timing.</p> <p>Support for local groups can be best provided by local authorities through their environmental awareness officers.</p>
E_SWMI_003 E_SWMI_009	Felt that the report does not make sufficiently clear the link between feedback on the SWMI and the process of drafting the draft River Basin management Plan.	<p>The purpose of the Water Matters report was to set out what the main water issues are in the RBD and how it is proposed to address them in the River Basin Management Plan. It is a public consultation document to raise awareness among the general public of the whole river basin planning process and provide opportunity for comment from the public on the suggested actions.</p> <p>Submissions received from the 6 month consultation period on the significant water management issues are currently being incorporated into the draft River Basin Management Plan.</p> <p>There will be a further opportunity to shape the River Basin Management Plan during the 6 month consultation period on the plan from December this year. If stakeholders feel their submissions have not been adequately dealt with in this digest or the draft plan, further representation can be made.</p>
E_SWMI_009	Public participation is not a direct management issue but a significant horizontal issue. Effective public participation is key to the success of the WFD and should be treated with the same gravity as the other issues identified.	<p>Public participation has been a significant part of the implementation of the Water Framework Directive in the Eastern River Basin District. The Eastern Advisory Council is providing valuable guidance during the preparation of the River Basin Management Plan. A series of public meetings was held on '<i>Water Matters – Have your say!</i>' reports. The local authorities have been used extensively to display information and distribute booklets on the Eastern District.</p> <p>Public participation has been a significant part of the implementation of the Water Framework Directive. Provision to allow for effective and structured public participation was enshrined in the legislation (Water Policy Regulations, SI 722 of 2003) transposing the WFD into Irish law by requiring the establishment of Advisory Councils in each River Basin District (RBD), membership of which is open to any member/group and is publicly advertised. In addition literature is produced as required and made freely available through the network of local authority offices and libraries, and other public authorities such as the Regional Fisheries Boards. Websites were set up for each RBD and are regularly updated. A further series of public meetings will be held for consultation on the draft RBMP. Also RBD and local authority staff regularly participate in events organized by NGOs and other agencies.</p>
E_SWMI_009	No connection is made between the general public and members of the Advisory Councils in the reports. Names of members	Irish legislation (Water Policy Regulations, SI 722 of 2003) required the relevant local authorities to prepare and publish an overview of the significant water management issues identified in the river basin district. The function and make-up of the Advisory Council is explained under the heading "Using local

	and contact details should be clearly presented in reports. There is no transparency or public awareness of what the Advisory Councils do.	expertise.” The names and nominating organisations of the Eastern Advisory Council members will be made available through the draft river basin management plan. The Advisory Council provides an effective forum for the exchange of information and opinions between elected representatives, nominees of sectoral interests and project staff. It is acknowledged that there is not widespread knowledge of the role or activities of the Advisory Council.
E_SWMI_009	Feedback from Advisory Council members recommended that more time should be given to active dialogue amongst members instead of presentation based meetings. Members also feel that since their advice to management committees is non-binding it renders them ineffective and powerless.	The early meetings of the Advisory Council were weighted towards dissemination of information to members. It was necessary to ensure that members were made aware of the extent and detail of the work being carried out. Latterly, meetings have been more balanced with ample opportunities for members to raise issues and to interrogate the information being provided. By its nature it is necessary to have presentations to get information and key messages/issues across to members. However, workshop formats are regularly used in both Advisory Councils to allow active dialogue among members. No feedback has been received to say that members are not satisfied with the operation of Advisory Councils to date insofar as the Council members agree their own agenda and meetings format.
E_SWMI_009	There has been no facilitation of cross border sectors in WFD participation to date, with Advisory Councils and the National Stakeholder Forum in NI operating independently.	Members of the Northern Ireland National Stakeholder Forum attended the second national conference for River Basin District Advisory Council members. Officials from the Northern Ireland Environment Agency (formerly the Environment and Heritage Service) attended both the first and second conference. Further liaison would be beneficial.
E_SWMI_009	Advertising needs to be done extensively and effectively in the relevant local areas before WFD public participation meetings.	Public meetings were recently held as part of the Significant Water Management Issues consultation. Several methods of attracting members of the public to the meetings were used including direct mail, email notification, media advertisement, interviews on radio and articles in newspapers. None the less, attendances have been relatively low.

3.3.8 General comments on ‘Water Matters – Have Your Say!’ report

Submission Reference No.	Issues Identified	Response
E_SWMI_009 E_SWMI_003	Ambiguous language in sections relating to actions that will be implemented to address water management issues. Feel that in many of the chapters no concrete actions have been proposed. Some of the measures that were put forward were accompanied by qualifiers and vague language.	The River Basin Management Plan will encompass a programme of measures. The measures proposed are being informed by studies that are only now coming to completion. It would have been premature to provide details of measures in ‘Water Matters’. The draft River Basin Management Plan will detail the programme of measures and a web mapping tool will allow users to identify objectives and measures for individual water bodies.
E_SWMI_009	It is felt that recent improvements in water quality have been overstated in the report. Additionally it is felt that failings to meet the current measures were not highlighted adequately.	‘Water Matters’ referred to improvements which had been noted by the EPA in the ‘Water Quality in Ireland 2006 – Key Indicators of the Aquatic Environment’ report. See http://www.epa.ie/downloads/pubs/water/indicators/name_23540.en.html for the full report. With regard to historical failures the emphasis was put on achieving the new water quality standards rather than looking back.

E_SWMI_009	Concern about the access to geographical data because of the limitations of current Ordnance Survey Licensing procedures.	The RBD project teams have been working with the County and City Managers' Association and Ordnance Survey Ireland to provide a full geographical database which will make it easy for members of the public to obtain data. Information on water bodies, risk assessments, water quality etc. can be currently accessed through the Environmental Protection Agency's ENVision system at http://maps.epa.ie .
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4.0 NATIONAL ISSUES - Abstractions

Submission Reference No.	Issues Identified	Response
E_SWMI_003 E_SWMI_009	Noted that the bar for defining 'significant abstraction' in new regulations must be set to accommodate projected ecological impacts and predicted recharge rates.	A registration and authorisation system to control the impact of abstractions is required by WFD. Licensing regulations for groundwater abstractions are currently being considered by DEHLG. Draft technical guidance has been prepared to support the new regulations. The technical guidance includes consideration of both issues raised in this comment.
E_SWMI_003 E_SWMI_009	Leakage from existing infrastructure must be addressed. Measures must be introduced to rapidly trace and stop leaks from water infrastructure.	Measures and controls to ensure that abstractions conditions are consistent with the achievement of the required ecological status have to be established in response to Article 11(3) of the Water Framework Directive. Reducing leakage is one potential measure to be considered.
E_SWMI_003 E_SWMI_009	Questioned whether the cumulative impact of abstractions will be addressed and noted that low flows must be used to determine acceptable abstraction limits.	The registration and authorisation system to control the impact of abstractions has to be established. Previous work on the Initial Characterisation of risk from abstraction impacts prepared in response to Article 5 of the Water Framework Directive used the concept of 'net abstractions' in a water body, accounting for cumulative impacts. Net abstractions are the sum of the all abstractions minus all discharge.
E_SWMI_003 E_SWMI_009	Rain water harvesting needs more focus. Requirements for harvesting should be included in new planning consents and grants should be provided for retrofitting of harvesting equipment.	Measures and controls to ensure that abstractions conditions are consistent with the achievement of the required ecological status have to be established in response to Article 11(3) of the Water Framework Directive. Rainwater harvesting is one potential measure to be considered.
E_SWMI_003	Noted that water charging for all abstraction is necessary.	A registration and authorisation system to control the impact of abstractions is required by WFD. Licensing regulations for groundwater abstractions are currently being considered by DEHLG.
E_SWMI_003 E_SWMI_009	The impact of harvesting of deep water (>3km) reserves for geothermal energy must be considered.	A registration and authorisation system to control the impact of abstractions is required by WFD. Licensing regulations for groundwater abstractions are currently being considered by DEHLG. Draft technical guidance has been prepared to support the new regulations. The technical guidance includes consideration of abstractions for geothermal energy uses similarly to other abstractions unless the system is a closed-loop application where the quantity of water and the location of abstraction/discharge are the same.
NB-NW_SWMI_023	Do River Basin Management Plans include estimations of future water abstraction levels and how will this be controlled?	River Basin Management Plans are not currently addressing future water abstractions as these are not known. The WFD requires a registration and authorization system to control impacts of abstractions and future abstractions will be covered by this system.
NB-NW_SWMI_023	Where water is abstracted is there any planning or controls to re-evaluate the abstraction quantity over a prolonged drought period?	Abstraction schemes are currently subject to planning regulations and large abstractions are subject to Environmental Impact Assessment regulations; issues related to abstractions during drought conditions need to be raised through these processes. The WFD requires a registration and authorisation system to deal with impacts of abstractions on ecological status; if ecological status of the water body was impacted by abstractions then it would be re-evaluated under this system.
NB-NW_SWMI_011	Abstraction of water from Lough Fad is a cause for concern due to the impact on the native Arctic Char population.	Measures and controls to ensure that abstractions conditions are consistent with the achievement of the required ecological status have to be established in response to Article 11(3) of the Water Framework Directive. Potential impacts to Article V Characterisation have been identified as one of the key site-specific impacts related to abstractions; these will need to be addressed in the River

		Basin Management Plans.
Enda Thompson e-mail??	Need to restrict drilling for groundwater, especially in karst areas.	Abstraction schemes are subject to planning regulations and large abstractions are subject to Environmental Impact Assessment regulations. Any impacts to karst areas should be addressed through these processes.
SE_SWMI_023 SE_SWMI_018	Application process should involve applicant identifying spawning areas within 1 km of proposed abstraction, carrying out ecological studies on surface waters, identifying zones of contribution for groundwater and identifying all parties potentially affected. Larger abstractions should involve an EIA, hydrometric surveys and public consultations. Abstractions application process should also take account of vulnerability mapping and nitrates directive.	Currently, abstraction schemes are subject to planning regulations and large abstractions are subject to Environmental Impact Assessment regulations, which include provision for public consultations. The WFD requires a registration and authorisation system to control the impact of abstractions; licensing regulations for groundwater are currently being considered by DEHLG; draft technical guidance has been prepared to support the new regulations. The guidance includes consideration of zones of contribution and source protection, which take account of vulnerability mapping. Regarding the Nitrates Directive, DEHLG has developed a Nitrates Action Plan that addresses potential for impacts on nitrate on water quality.
SE_SWMI_023 SE_SWMI_018	Items to be considered by licensing agency <ul style="list-style-type: none"> ▪ minimum flow retaining in water body for good ecological status/good river condition rather than a % of the overall/dry weather flow ▪ has BAT been used to minimise abstraction requirements ▪ reuse water rather than further abstraction ▪ can rainwater harvesting/impoundment be used instead of or to reduce abstraction 	The comments are noted. The research project of abstractions will deal with ecologically sustainable flows and identify possible measures for reducing demand.
SE_SWMI_023 SE_SWMI_018	License conditions <ul style="list-style-type: none"> ▪ Continuous flow and level monitoring in abstraction waters ▪ Maintain records of abstraction on a publicly accessible website (daily, weekly updated) ▪ Designate points for intermittent abstractions ▪ None from headwaters or sensitive areas e.g. spawning grounds, fresh water pearl mussel ▪ Water abstracted should be returned to the same water body/catchment (at a 	The comments are noted. A licensing guidance for groundwater abstractions is being developed as part of the abstractions research project.

	<p>point close to the abstraction)</p> <ul style="list-style-type: none"> ▪ Non essential abstraction to cease during drought conditions i.e. drinking water ▪ Water abstraction should incur a charge per unit abstracted (ground and surface waters) ▪ Penalties for non conformance with license should be realistic, reflect the high respect we should have for our waters and be sufficiently large so that they are a deterrent ▪ Abstraction licence should contain a max hourly rate as well as an overall daily, weekly, monthly rate ▪ Abstracted water should be monitored for quality ▪ Annual impact on abstraction water report should be publicly accessible ▪ A requirement to attend a water awareness education programme (2 or 3 days long and prepared by the EPA of other statutory body) 	
SE_SWMI_019	Not enough emphasis given to the effects of recharge rates	The WFD requires a registration and authorisation system to control the impact of abstractions; licensing regulations for groundwater are currently being considered by DEHLG; draft technical guidance has been prepared to support the new regulations. Recharge of groundwater is a central component in this guidance.
SE_SWMI_019	<p>All present and future abstractions should be properly assessed for recharge rates and in particular for:</p> <p><u>Rivers</u></p> <ul style="list-style-type: none"> ▪ The effects of flow properties and upstream of abstraction points ▪ The effects on feeder streams upstream of abstraction points ▪ Movement of bed material in suspension and by siltation, particularly relating to salmonid spawning redds <p><u>Lakes</u></p> <ul style="list-style-type: none"> ▪ Maintaining optimum water levels throughout the year 	<p>The WFD requires a registration and authorisation system to control the impact of abstractions; licensing regulations for groundwater are currently being considered by DEHLG; draft technical guidance has been prepared to support the new regulations. Most of these comments address water balance issues, which are fundamental to assessment of potential impacts from abstractions.</p> <p>Abstractions of surface water bodies (rivers/lakes) do not typically have impacts on upstream feeder streams. With regard to groundwater, the potential for effects on discharge to streams is a component of water balance.</p>

	<ul style="list-style-type: none"> ▪ The effects of abstraction on feeder streams to the lake <p><u>Aquifers</u></p> <ul style="list-style-type: none"> ▪ The effects on water table levels surrounding and adjacent to the aquifer ▪ The effects on streams fed by the aquifer. 	
SE_SWMI_023	Type of abstractions regulated should include intermittent, temporary, permanent/long term and groundwater abstraction	The WFD requires a registration and authorisation system to control the impact of abstractions. Thresholds may be set for those abstractions requiring only registrations and those also requiring authorisation.
SE_SWMI_023	Drilling companies should be licensed	The WFD requires a registration and authorisation system to control the impact of abstractions; licensing regulations for groundwater are currently being considered by DEHLG; draft technical guidance has been prepared to support the new regulations. The guidance includes recommendations on licensing of drilling companies.
SE_SWMI_023	No lower limit of abstraction for licence requirement	The WFD requires a registration and authorisation system to control the impact of abstractions. Thresholds may be set for those abstractions requiring only registrations and those also requiring authorisation.
SE_SWMI_023	A national central database of abstractions should be compiled	The WFD requires a registration system to control the impact of abstractions.
SE_SWMI_017	Over-abstraction may cause permanent damage to the environment	The comment is noted.
SE_SWMI_017	All sources of water have finite capacities, and work is required to define these capacities, and so determine the maximum rates of abstraction.	The comment is noted. Determination of abstraction volumes will be a component of the registration and authorisation system to control the impact of abstractions required under the WFD.
SE_SWMI_017	A model that would provide data for calculations of the finite capacity of both surface and groundwater sources is suggested.	The need for a model to define the capacity of water resources would need to be decided on a case-by-case basis.
SE_SWMI_018	Lower thresholds for EIAs for water abstraction	The WFD requires a registration and authorisation system to control the impact of abstractions. Thresholds may be set for those abstractions requiring only registrations and those also requiring authorisation.
SE_SWMI_024	Suggested revising Planning Legislation to ensure assessment of water supply and environmental implications of new abstractions as part of planning process	The comment is noted.

5.0 LOCAL ISSUES - ERBD

5.1 Invasive Alien Species

Submission Reference No.	Issues Identified	Response
E_SWMI_003	Irish Wildlife Trust concerns – Japanese Knotweed, Giant Hogweed, Himalayan Balsam, Mitten Crabs and other Invasive Alien Species must be tackled. Will resources be forthcoming to support action in this area?	The removal of alien species is problematic and thus far efforts to address the problem have had only limited success. Developments in approaches will be monitored by the relevant agencies. Remedial actions will probably be intensive and repetitive and so significant funding will be required.
E_SWMI_011	Recommend the introduction of legislation to prevent the sale of invasive species of flora and fauna. Pike should be added to the list of highest-risk alien species.	Comments are noted.

5.2 Climate Change

Submission Reference No.	Issues Identified	Response
E_SWMI_014	Climate change considerations excluded from the report.	As noted in the report, climate change effects are not yet certain and so measures to counter them are premature. The EU has recommended that these issues should be addressed in the second plan in 2012.

5.3 Economics

Submission Reference No.	Issues Identified	Response
E_SWMI_014	Economic costs of meeting our obligations under the WFD, in addition to the economic benefits of implementing the WFD fully, have not been addressed in the report.	DEHLG has commissioned guidance on the application of economics and this will be presented in the late autumn of 2008.

5.4 Rainwater Harvesting

Submission Reference No.	Issues Identified	Response
E_SWMI_014	The vague reference to ‘rainwater harvesting’ is inappropriately sparse coverage of this issue.	Measures related to demand reduction will be included in the Abstractions research project

5.5 Joined-up Thinking

Submission Reference No.	Issues Identified	Response
E_SWMI_014	An Taisce urges that greater emphasis be placed on joined-up thinking across departments. (citing examples where EPA IPCC (waste) licences are granted for waste facilities that are refused by An Bord Pleanála on grounds of risk to water quality).	The WFD required that all relevant plans and programmes are linked; the Strategic Environmental Assessment will also address this issue.

5.6 Wastewater and Industrial Discharges

Submission Reference No.	Issues Identified	Response
E_SWMI_014	<p>The poor operation of waste water treatment plants and sewage facilities is worryingly understated in the Report.</p> <p>An Taisce urges that enforcement measures for non-compliance should be incorporated into the Management Plan.</p> <p>An Taisce very much welcomes the introduction of the Wastewater Discharge (Authorisation) Regulations 2007. They sincerely urge that the significant nutrient enrichment that still occurs from treated wastewaters that are not subject to secondary treatment is addressed through these Regulations and that shortcomings in the implementation of the Urban Wastewater Directive and national implementing regulations are also addressed through these Regulations <i>and</i> incorporated in the Management Plan. The removal of excess phosphates and BOD must also</p>	<p>All existing legislation should be fully implemented – the UWWTD addresses the treatment obligations for urban areas of varying sizes and for those discharging to sensitive waters.</p> <p>The Wastewater Discharge Regulations will address issues relating to operations and capacity of collection systems and treatment plants. Non-compliance will also be addressed by this legislation.</p>

	<p>be addressed, if not adequately done as part of these new regulations.</p> <p>There needs to be a statutory provision for the design and implementation of Sustainable Urban Drainage Systems (SUDS) and adequate resource allocation and this should be given adequate attention in the Management Plan.</p> <p>Road run-off should be considered in all Environmental Impact Assessment for new roads. Self regulation of the NRA is not acceptable for this issue and it must be addressed through measures in the Management Plan.</p> <p>The issue of industrial waste discharges is not dealt with in sufficient detail in the report.</p>	<p>SUDS is required by some local authorities and this initiative is becoming more widespread. SUDS is one of several possible urban measures which would be beneficial to receiving waters and will be integral in the Programmes of Measures.</p> <p>The Urban research project has identified stormwater runoff from roads as being an issue in urban areas. A number of possible measures have been identified in that report.</p> <p>The MIRS research project investigated all point sources in depth and has developed measures to deal with these discharges. The IPPC licensing arrangements are already in place and are well implemented by the EPA. The EPA periodically review the terms of the license in view of changing environmental requirements</p>
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5.7 Landfills, Quarries, Mines and Contaminated Lands

Submission Reference No.	Issues Identified	Response
E_SWMI_014	<p>Considerable threats and required actions to the various separate activities outlined in the report are not adequately addressed.</p> <p>Additional problems with Quarries not dealt with in the report (see An Taisce submission for detailed breakdown).</p> <p>National regulations to oversee the licensing, monitoring and compliance enforcement of Quarries are clearly needed.</p>	<p>The SWMI report was primarily a non-technical public consultation document for the general public and this necessitated a simple approach in combining pressures. Each pressure will be treated separately in the river basin management plan.</p> <p>The EPA's guidance to local authorities on identification and remediation of historical and illegal landfills covers many issues. It is intended that this guidance will form part of the programme of measures under the River Basin Management Plan and when adopted this will become law.</p>

5.8 Agriculture

Submission Reference No.	Issues Identified	Response
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E_SWMI_014	An Taisce urge the inclusion of protection of ecologically rich rivers in the Management Plan.	Each water body will be categorised in terms of existing status by EPA on the basis of several considerations, including ecological diversity. High Status sites (and protected areas) will be identified and appropriate measures included in the river basin management plan.
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5.9 Wastewater from unsewered properties

Submission Reference No.	Issues Identified	Response
E_SWMI_014	An Taisce recommend that GIS mapping of planning permissions for unserviced sited sites in each Local Authority.	Measures appropriate for unsewered properties have been identified by the research project undertaken in the WRBD. A number of local authorities are considering bye laws and their implementation will require a well organised programme of data management.

5.10 Protecting High Quality Areas

Submission Reference No.	Issues Identified	Response
E_SWMI_003	Irish Wildlife Trust recommends additional resources must be provided to undertake specific actions to identified high quality areas.	Each water body will be categorised in terms of existing status by EPA on the basis of several considerations, including ecological diversity. High Status sites (and protected areas) will be identified and appropriate measures included in the river basin management plan..

5.11 Forestry

Submission Reference No.	Issues Identified	Response
E_SWMI_011	Request for the amendment of a sentence relating to the reason for the negative impacts of Forestry on waters. Also inaccuracies and inappropriate terminology corrections in the SWMI report.	Comments noted
E_SWMI_014	Enforcement of existing controls is inadequate to protect water quality from forestry impacts. (detailed recommendations in the An Taisce submission).	Existing legislation and guidance is being reviewed as part of the research project on forestry being undertaken by the WRBD

5.12 Water Abstraction from the River Liffey

Submission Reference No.	Issues Identified	Response
E_SWMI_012	The time for a new source of water abstraction is	Dublin City Council has commissioned studies to investigate alternative potential water sources for

	now. There is a suggestion that abstraction from the Shannon will meet with opposition. Proposal of new water impoundment facility on the Upper River Liffey should be revived.	the Dublin area. This work is ongoing.
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5.13 Osberstown Sewage Treatment Plant

Submission Reference No.	Issues Identified	Response
E_SWMI_012	Absolute control of the effluent from this plant into the River Liffey is needed to prevent deleterious matter from entering it. Suggestion that a more environmentally friendly method should be devised for the washing operations in the plant to prevent obnoxious matter entering the river.	Kildare County Council have commissioned the design of an extension of this plant as well as a review of operations within the plant. The overall performance of the plant is expected to improve markedly when this work is complete.

5.14 Proposed Liffey Valley Park

Submission Reference No.	Issues Identified	Response
E_SWMI_012	There is a need to provide sufficient space between the river bank and the proposed public walkway, in the development of the Liffey Valley Park for anglers.	Comments noted.

5.15 Transporting Chemicals/Natural Abatement Methods/Problem Solving Responsibility

Submission Reference No.	Issues Identified	Response
E_SWMI_013	<p>Little reference in the SWMI report to the risk posed by transporting chemicals, especially fuel oil – There is a risk posed by the hundreds of fuel tankers that use river crossings daily. How many are equipped to prevent leakage of their load in the event of an accident?</p> <p>It may be worth referring to the issue that herbicides (as well as pesticides) may effect water</p>	<p>Road run off is a potential threat to water quality. Safety issues are addressed by a number of pieces of legislation and contingency plans are in place to deal with accidents and spills.</p> <p>The effect of herbicides and pesticides were examined as part of the Diffuse Mobile Organics research project undertaken by the ERBD. High risk areas were identified and measures outlined to</p>

	<p>(plant) quality.</p> <p>While it may not be possible to police every discharge all of the time the use of natural ‘toxicity’ abatement methods e.g. reed beds to reduce Nitrogen and Phosphate levels from waste water discharges should be encouraged so as to provide a form of safeguard.</p> <p>Decisions on how problems should be addressed should be a combined effort between local property owners, appropriate NGOs and statutory bodies.</p>	<p>deal with this threat.</p> <p>Reed beds offer potential for wastewater treatment in more rural areas where there is adequate space for the beds. Pilot implementations are already in place and these are being evaluated.</p> <p>Comment noted</p>
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5.16 ESB Dams

Submission Reference No.	Issues Identified	Response
E_SWMI_015	<p>ESB Dams have multiple uses, including electricity generation, flood control, water supply, navigation and recreation. Depending on the conditions prevailing at particular times the priorities for these various uses may change. ESB will be available as required to discuss the roles of these uses with the RBD project during the development of the Management Plan.</p> <p>The ESB’s dams on the River Liffey are operated in accordance with the ESB’s “Regulations and Guidelines for the Control of the River Liffey”. The top priority of these regulations and guidelines is the proper management of water in the River Liffey so as to avoid any risk to dam safety. In particular during flood periods, water can be discharged through spillways and turbines so as to keep water levels at the dams within prescribed limits. Again, ESB will be available as required to discuss the issue of water management at the dams on the River Liffey with the RBD Project during the development of the Management Plan.</p>	<p>Comment noted. Changes to compensation flows may enhance the ecological diversity of the river; this is being investigated by the abstractions research project.</p>

6.0 LOCAL COMMENTS – ERBD ROADSHOW

Submission	Particular Local Issues Identified	Response
Meeting Attendee	Cleaning of Avoca River i.e. installation of treatment plant on design of pilot plant & sewage treatment plant.	DCMNR has commissioned a study to investigate the safety and environmental impacts of the Avoca mine. Recommendations have been made and are currently under consideration by DCMNR
Meeting Attendee	Pollution of River Boyne by Dept. of Agriculture! Depletion of Aquifer by Cement Ltd. Platin	The Boyne catchment, like others in the ERBD, receives diffuse nutrients from agriculture and unsewered properties. The Nitrates Action Plan is intended to deal with the agricultural issues
Meeting Attendee	I would like to see the benefits of biodiversity preservation highlighted with regard to protecting water quality (and vice versa).	The WFD requires Good ecological Status is attained in our waters – this in itself requires diversity.

7.0 What happens next?

The local authorities responsible for implementation of the Water Framework Directive in the Eastern River Basin District are committed to considering the comments received through this recent consultation exercise during preparation of draft management plans. Submissions will help to refine and inform the specific content of the plans.

Draft River Basin Management Plans will be published for public consultation by 22nd December 2008. The consultation will run until 22nd June 2009. We would therefore encourage all those with an interest in the protection and enhancement of the aquatic environment to fully participate in the consultation process.

8.0 References

County Councils

Cavan County Council <http://www.cavancoco.ie/>
Dublin City Council <http://www.dublincity.ie/>
Dun Laoghaire/Rathdown County Council <http://www.dlrccoco.ie/>
Fingal County Council <http://www.fingalcoco.ie/>
Kildare County Council <http://kildare.ie/countycouncil/index.html>
Louth County Council <http://www.louthcoco.ie/>
Meath County Council <http://www.meath.ie/>
Offaly County Council <http://www.offaly.ie/offalyhome/yourcouncil/>
South Dublin County Council <http://www.sdcc.ie/>
Westmeath County Council <http://www.westmeathcoco.ie/>
Wexford County Council <http://www.wexford.ie/wex/>
Wicklow County Council <http://www.wicklowne.ie/>

Departments / Agencies etc.

Department of Environment, Heritage and Local Government <http://www.environ.ie/en/>
National Parks and Wildlife Service <http://www.npws.ie/en/>
Department of Agriculture, Fisheries and Food <http://www.agriculture.gov.ie/>
Forest Service http://www.agriculture.gov.ie/index.jsp?file=forestry/pages/forest_service.xml
Department of Communications, Energy and Natural Resources <http://www.dcmnr.gov.ie/>
Department of Community, Rural & Gaeltacht Affairs <http://www.pobail.ie/>
Environmental Protection Agency <http://www.epa.ie>
Office of Public Works <http://www.opw.ie/>
Waterways Ireland <http://www.waterwaysireland.org/>
Marine Institute <http://www.marine.ie/Home/>
Health and Safety Authority <http://www.hsa.ie/eng/>
Irish Medicines Board <http://www.imb.ie/>
Department of Health and Children <http://www.dohc.ie/>
Sustainable Energy Ireland www.sei.ie
National Federation of Group Water Schemes <http://www.nfgws.ie/>

Regulations

European Communities (Drinking Water) Regulations 2007 ((S.I. No. 106/2007)
European Communities (Water Policy) Regulations, 2003 (S.I. No. 722/2003)
European Communities (Water Policy) (Amendment) Regulations 2005 (S.I. 413/2005)
European Communities (Natural Habitats) Regulations 1997, 1998 and 2005 (S.I. No. 364/2005)
European Communities (Good Agricultural Practice for the Protection of Waters) Regulations (S.I. No. 378/2006)
European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001. (S.I. No. 538/2001)
European Communities (Aerial Fertilisation) (Forestry) Regulations 2006 (S.I. No. 592/2006)
Waste Management (Use of sewage sludge in agriculture) Regulations 1998, 2001 (S.I. No. 267/2001)
Wastewater Discharge (Authorisation) Regulations 2007 (S.I. No. 684/2007)
Quality of Shellfish Waters Regulations 2006 (S.I. No. 268/2006)

Acts / Orders

Local Government (Water Pollution) (Amendment) Act, 1990
Arterial Drainage Act, 1945
Planning & Development Act, 2000
Forestry Act, 1946
Protection of the Environment Act, 1993
Wildlife Act, 1976
Foreshore Act, 1933
Fisheries (Amendment) Act, 1997
Sea Fish Conservation Act, 1967
Protection of the Environment Act, 2003
Waste Management Act, 1996
Environmental Protection Agency Act, 1992
Mussel Seed (Conservation of Stocks) Order 1987 as amended by the Mussel Seed (Conservation and Rational Exploitation) Order 2003

APPENDIX 1

Questions asked in the ‘Water Matters – Have your say!’ booklets.

- Q1.** Do you agree that these are the key causes of water problems within the river basin district?
- Q2.** What is your view of these suggested themes? Have we missed something that would be helpful within the river basin district?
- Q3.** What is your view about the suggested actions to control problems related to wastewater and industrial discharge within the river basin district? Are these actions appropriate? Have we missed something important?
- Q4.** What is your view about the suggested actions to control problems related to landfills, quarries, mines and contaminated lands within the river basin district? Are these actions appropriate? Have we missed something important?
- Q5.** What is your view about the suggested actions to control problems related agriculture within the river basin district? Are these actions appropriate? Have we missed something important?
- Q6.** What is your view about the suggested actions to control problems related to unsewered properties within the river basin district? Are these actions appropriate? Have we missed something important?
- Q7.** What is your view about the suggested actions to control problems related to forestry within the river basin district? Are these actions appropriate? Have we missed something important?
- Q8.** What is your view about the suggested actions to control problems related to dangerous substances within the river basin district? Are these actions appropriate? Have we missed something important?
- Q9.** What is your view about the suggested actions to control problems related to physical modifications within the river basin district? Are these actions appropriate? Have we missed something important?
- Q10.** What is your view about the suggested actions to control problems related to abstraction within the river basin district? Are these actions appropriate? Have we missed something important?
- Q11.** What is your view about the suggested actions to control problems related alien species within the river basin district?
- Q12.** What is your view about the suggested actions to address sensitive area problems within the river basin district?
- Q13.** What is your view about the suggested actions to address the shared water issues within the river basin district?
- Q14.** What is your view about our approach to assessing future risks within the river basin district?

APPENDIX 2

Source of 'Water Matters' ERBD submissions

Name	Organisation
Nigel Russell	Waterways Ireland
Elizabeth Cullen	Irish Doctors Environmental Association
Joanne Pender	Irish Wildlife Trust
Mary Stack	Failte Ireland
Liam Symth	Irish Concrete Federation
Siobhan Egan	Bird Watch Ireland
Nathy Gilligan	Office of Public Works
Thomas Ryan	Irish Farmers Association
Sinead O'Brien	Sustainable Water Network (SWAN)
Damian Allen	Forest Service, Department of Agriculture Fisheries and Food
Dr. Philip O'Dea	Coillte
James R. Miley	Dublin Trout Anglers Association
Michael Gunn	Meath Heritage Forum
Anja Murray	An Taisce
Brian O'Mahony	ESB
TOTAL	15

