

# Digest of Public Submissions and Responses to Significant Water Management Issues (Water Matters) report



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

**Shannon International River Basin District**

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# 1.0 Introduction

## 1.1 Background

The Water Framework Directive (2000/60/EC) is a European Directive introduced in December 2000 establishing a new framework for the protection and management of water resources throughout the European Union (EU). The Directive requires that Member States manage their waters on the basis of River Basin Districts (RBDs). It was transposed into Irish law on 22 of December 2003 through the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). 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 Water Framework Directive (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 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 22<sup>nd</sup> June 2007 in Ireland and Northern Ireland. Joint booklets (North and South) were published for the International River Basin Districts.

The '*Water Matters*' report for the Shannon IRBD was issued jointly by the local authorities in the Shannon IRBD: Cavan, Clare, Cork, Galway, Kerry, Laois, Leitrim, Limerick, Longford, Mayo, Meath, Offaly, Roscommon, Sligo, North Tipperary, South Tipperary, and Westmeath County Councils, and Limerick City Council and the Department of the Environment's Northern Ireland Environment Agency (formerly the Environment and Heritage Service) in Northern Ireland.

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 eight national topics that had been identified as significant within all the River Basin Districts in Ireland and one heading covering local issues in the River Basin District such as invasive alien species, high quality areas, and boating/cruising. 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 22<sup>nd</sup> June to 22<sup>nd</sup> December 2007. Stakeholders and the public were invited to submit comments by post to nominated persons, through the Shannon IRBD website ([www.shannonrbd.com](http://www.shannonrbd.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 consultation events were hosted in the river basin district during October 2007 as set out in the table below (a report on these events and issues raised are detailed in a separate report titled ‘*Record of Issues raised at Public Consultation Events to discuss the Water Matters Report 2007*’ and which is available to download on the Shannon IRBD project website).

**Table 1: Public Consultation Meetings**

	Venue	Date
1	West County Hotel, Ennis, Co. Clare	9 <sup>th</sup> October
2	Kilmurry Lodge Hotel, Co. Limerick	10 <sup>th</sup> October
3	Brandon Hotel, Tralee, Co. Kerry	11 <sup>th</sup> October
4	Landmark Hotel, Carrick on Shannon, Co. Leitrim	22 <sup>nd</sup> October
5	Crover House Hotel, Mountnugent, Co. Cavan	23 <sup>rd</sup> October
6	Prince of Wales Hotel, Athlone, Co. Westmeath	24 <sup>th</sup> October
7	Abbey Court Hotel, Nenagh, Co. Tipperary	25 <sup>th</sup> October

In addition information points (consisting of a computer with continuous-running presentations explaining the WFD process to date and numerous WFD material, including the Water Matters booklet) were set up in the headquarters of four of the local authorities in the Shannon IRBD for the final six weeks of the consultation period. The local authorities in question were spread down the length of the IRBD, namely Leitrim (Carrick on Shannon), Westmeath (Athlone Civic Offices), North Tipperary (Nenagh) and Limerick (County Council offices, Dooradoyle).

### 1.4 Scope of the Digest

This Digest is a compilation of written submissions received during the consultation period and questionnaires completed at the public meetings above. All submissions are responded to herein and will be considered during the development of the draft river basin management plan. The draft plan must be published by the 22<sup>nd</sup> December 2008 and is itself subject to a 6 month consultation period. This Digest of submissions and responses is being distributed to those who took part in the process and other interested parties, and will also be available on the Shannon IRBD project website.

### 1.5 North South Aspect of the Digest

Submissions relating to the Republic of Ireland portions of the Shannon International River Basin District are presented in this Digest.

## 2.0 Summary of submissions

### 2.1 Written submissions

A total of 32 written submissions were received as part of the consultation process, 19 of which were from private individuals, 8 from sectoral interest groups or NGOs, 4 from public authorities, and one from the ShIRBD Advisory Council. There was a wide variation in the size of submissions – from “one-liners” on a questionnaire form returned at one of the public consultation events to 40 typed pages. There was similar variation in the content, from a very specific issue to the general global issue of climate change. See Appendix 2 for a list of individuals/organisations that made written submissions.

### 2.2 Topics covered

Written submissions 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 Shannon IRBD which include issues surrounding invasive alien species, high quality areas, and climate change.
- Additional issues not identified in the ‘*Water Matters*’ reports e.g. aquaculture.
- Issues associated with action themes such as enforcement, resources and public participation.
- Miscellaneous issues that could not be specifically grouped

### 3.0 Detailed Comments

Written submissions are outlined in this section together with a considered response. Submissions and responses are grouped where possible as described above (Section 2.2).

#### 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 in section 3.2

**Table 2. Reference system to identify response to submissions in section 3.2.**

<b>Organisation</b>	<b>Reference Code</b>
Waterways Ireland	Sh_SWMI_001
Irish Doctors Environmental Association	Sh_SWMI_002
Irish Wildlife Trust	Sh_SWMI_003
Fáilte Ireland	Sh_SWMI_004
Irish Concrete Federation	Sh_SWMI_005
Bird Watch Ireland	Sh_SWMI_006
Office of Public Works	Sh_SWMI_007
Irish Farmers Association	Sh_SWMI_008
SWAN	Sh_SWMI_009
Forest Service, Department of Agriculture Fisheries and Food	Sh_SWMI_010
Lough Derg Science Group	Sh_SWMI_011
Private individual	Sh_SWMI_012
Private individual	Sh_SWMI_013
Private individual	Sh_SWMI_014
Private individual	Sh_SWMI_015
Private individual	Sh_SWMI_016
Private individual	Sh_SWMI_017
Private individual	Sh_SWMI_018
Private individual	Sh_SWMI_019
Private individual	Sh_SWMI_020
Private individual	Sh_SWMI_021
Private individual	Sh_SWMI_022
Private individual	Sh_SWMI_023
Private individual	Sh_SWMI_024
Private individual	Sh_SWMI_025
Private individual	Sh_SWMI_026
Westfields Wetland Committee	Sh_SWMI_027
Private individual	Sh_SWMI_028
Private individual	Sh_SWMI_029
Shannon IRBD Advisory Council	Sh_SWMI_030
Ennis & District Anglers Association	Sh_SWMI_031
Private individual	Sh_SWMI_032

### 3.2 Submissions and Responses

The following submissions relate to issues covered in the 'Water Matters' reports.

#### 3.2.1 Wastewater and industrial discharges

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009	<p>Identified the complex administrative process surrounding the roll out of the Water Services Investment Programme.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>
Sh_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.
Sh_SWMI_009 Sh_SWMI_003	All treatment plants for 200+ 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.
Sh_SWMI_003 Sh_SWMI_009	<p>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.</p> <p>Noted concern about the general state of a proportion of sewer networks within the Inishowen area of County Donegal</p>	<p>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.</p> <p>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.</p>
Sh_SWMI_009	Expressed concern that the exemptions set out in Article 7.(1) & 7.(2) of the ‘ <i>Waste Water Discharge (Authorisation) Regulations 2007</i> ’ 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.
Sh_SWMI_009 Sh_SWMI_003	Prohibit the land-spreading of sludge from sewage treatment plants.	<p>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.</p> <p>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.</p>
Sh_SWMI_009 Sh_SWMI_003	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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_008	Request that detailed studies of the vulnerability of groundwater and general water quality from licensed discharges be completed and that full consideration be given to these findings when the review of the NAP takes place.	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 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.
Sh_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.
Sh_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.	' <i>Water Matters</i> ' 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.
Sh_SWMI_012	Discharges to the Shannon from Athlunkard Bridge down to Cratloe. The largest population centre in the basin, Limerick, is bathed twice a day from tide – borne sewerage discharges coming up the channel from below and continuous discharges coming downstream from above. Projections about the fate of microbial material coming from the main treatment plant at Bunlickey which accompanies the planning application dated 1996 have not been met. Results of sampling carried out by the City and County Councils which show the precedences' have little or no pattern to them and have little information much less predictive value. Analytical methods on water samples collected for faecal coliforms and salinity have produced odd results: MPN from cultured samples and salinity results based on conductivity. The consultants who produce the reports expressed surprise at the results	The submission on discharges to the Shannon estuary at Limerick City refers mainly to water sampling monitoring locations and exceedances in water quality standards.  The provision of monitoring locations in the Shannon tidal waters was a stipulation of the An Bord Pleanala decision of June 1997. Planning Register Reference Number 95/2230 refers. Condition No.14 stipulates 4 requirements relating to sampling and a copy of this condition is attached.  Water monitoring is undertaken at 10 locations, both upstream and downstream of the Bunlicky treatment plant. The sampling and analysis is carried out every two months by Mercury Analytical and results are available from the Limerick Main Drainage Project Office. Treatment plant effluent discharge limits are set and, apart from an occasional exceedance in exceptional circumstances, these limits are complied with. Prior to the commissioning of the treatment plant over 50 outfalls of raw sewage discharged directly to the Shannon Limerick. The main drainage

	<p>and absence of pattern. The selection of sites (9 in all) are mainly the result of an ‘ad hoc’ order of An Bord Pleanala which took no account of the hydrology of the zone.</p> <p>The Shannon at Limerick is a transitional zone that is neither brackish or freshwater. Density differences between the two waters produce a wedge at Ballinacurra Buoy during the first hour of flow, and thereafter the two waters divide the channel between them apart from mixing at the interface and at high water. Near tides are also complex, meaning that casual sampling from a boat going from one end of the zone to the other in a few hours could not produce reliable information about the fate of discharges</p>	<p>scheme removed these outfalls. City effluent receives tertiary treatment and water quality in the Shannon at Limerick has improved significantly as a result.</p>
<p>Sh_SWMI_013 Sh_SWMI_014</p>	<p>Storage and spreading of sewage sludge from Galway City, Mayo and other counties in the East Galway area of Eyrecourt. The storage of thousands of tonnes of sewage from Mutton island plant in Galway at Liskey, Eyrecourt. Want the sludge properly treated i.e. turned into pellets.</p>	<p>Sludge is stored on a farm in East Galway and then treated sludge is spread on the lands in accordance with the Use of Sewage Sludge in Agriculture Regulations. The treated sludge is harrowed in on grassland and ploughed into arable lands.</p> <p>Galway County Council have carried out inspections and audits and checked that the sludge is used in accordance with the regulations. The Sludge Register is kept up to date. Any advice or request from the EPA on this matter is implemented. Neighbouring local authorities have been requested to inform Galway County Council about sewage sludge coming into County Galway from other counties.</p> <p>A draft Sludge Management Plan for Galway City and County is being prepared which is looking at options including thermal drying of sewage sludge at a central hub. The resultant pellets would still have a fertiliser value for agricultural purposes.</p>
<p>Sh_SWMI_020</p>	<p>Lanesborough sewerage system doesn’t exist, one in Ballyleague but none for Lanesborough with all the new houses.</p>	<p>The existing plant comprises of a manually cleaned bar screen followed by an Imhoff (settlement) tank.</p> <p>Future Capital plans include for decommissioning of this plant and installation of a pumping station to deliver the inflow to the WWTP at Ballyleague, Co. Roscommon after this plant has been upgraded.</p> <p>The upgrade is due for completion in 2 to 3 years.</p>

Sh_SWMI_015	Fast track the upgrading of sewage treatment plants. Need pollution hotline.	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 contractors and to shorten timescales for approval of project stages.
Sh_SWMI_031	Legislation needs to be put in place to force a quick response to situations where plants have become overloaded. Not just an environmental issue but also a public health one. Plants should be designed in modular fashion, so that they could be extended readily as need arises.	The Wastewater Discharge (Authorisation) Regulations 2007 require the licensing of municipal discharges by the EPA. The licenses will require local authorities, inter alia, to comply with the Urban Wastewater Treatment Regulations. It is an offence for a local authority to allow a discharge from a waste water works except in accordance with the terms and conditions of an authorisation granted by the Environmental Protection Agency. 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. Waste water treatment plants are generally designed in modules to facilitate expansion.
Sh_SWMI_030	Insufficient funding for municipal wastewater treatment - huge drain on local authority (LA) resources to meet their contribution. All LAs' within the Shannon IRBD should receive CLAR funding to upgrade sewerage treatment works. Difficult to get funding for infrastructure in advance of development; allowing development forces the hand of the DEHLG to release the funds.	The provision of water services (i.e. water and wastewater infrastructure) is divided into two main elements: Water Services Investment Programme (WSIP) administered by the Department of the Environment, Heritage and Local Government, and Rural Water Programme (RWP) funded by the Department but devolved to local authorities. The Exchequer meets the full capital costs of providing services to domestic customers. The non-domestic sector must pay for services provided to them. CLÁR is an investment programme for disadvantaged rural areas and provides funding and co-funding to Government Departments, State Agencies and Local Authorities in accelerating investment in selected priority developments, including small water and sewerage schemes. The measures introduced under the programme reflect the priorities identified by the communities in the selected areas whom the Minister consulted at the outset. Sixteen areas were selected nationally for inclusion in the CLAR programme based mainly on depopulation, including parts of many counties in the ShIRBD. The principle of additionality is central to CLÁR. Therefore, it seeks to encourage matching funding from Government Departments, State Agencies and Local Authorities. If a WWTP is located in a CLAR region then it should be possible to get extra funding through the CLAR programme.

Sh_SWMI_022 Sh_SWMI_025	The complex procurement procedures which LAs must undertake when attempting to install waste water treatment systems results in unacceptable delays. This procedure must be changed i.e. decentralised!! And “free up” LAs. The Indecon report and its recommendations should be implemented forthwith.	New procurement procedures have been put in place to expedite the appointment of design teams and contractors and to shorten timescales for approval of project stages
Sh_SWMI_022	Not enough emphasis/ government support for installation of reed-bed systems as an ecologically friendly alternative to existing systems which are not working effectively.	The adequacy of constructed wetlands for wastewater treatment are being investigated by a number of authorities/agencies e.g. NPWS, EPA. While they offer potential solutions in many cases there are concerns about their long-term use and ability to achieve the same level of treatment on a continuous basis
Sh_SWMI_026	Suggest reed beds used to polish off final effluent from UWWTPs and act as a buffer between outlet and receiving waters	Reed bed systems have been used to polish off final effluent from UWWTPs, particularly where there is inadequate capacity in the receiving waters.
Sh_SWMI_029	Introduce tertiary waste water treatment before discharging into the Shannon, phosphates to be discontinued in all domestic washing liquids.	Tertiary treatment is required when, due to the sensitivity of the receiving water, a higher standard of treated effluent is required. All discharges are individually assessed.
Sh_SWMI_031	<p>Key issues affecting health of Fergus System are</p> <ul style="list-style-type: none"> <li>• sewage emanating from urban treatment plants (serious, measurable and escalating) at Kilfenora, Corofin and Ennis</li> <li>• water abstraction (needs further examination)</li> <li>• sewage from septic tanks (probably serious but not really measurable)</li> </ul> <p>Urban Wastewater –Discharge licenses need to be rigorously enforced and independently checked</p>	<p>Clare County Council would accept that the Corofin and Ennis plants are overloaded at present but Kilfenora does not fit into this category and generally produces satisfactory effluent. In the case of all three schemes, improvement proposals are in place. In the case of Kilfenora, a Preliminary Report has been prepared with the intention of carry out the proposals subject to DEHLG approval and funding proposals. A discharge licence will be required also from the EPA as part of this overall improvement.</p> <p>Corofin’s Preliminary Report has been approved for some time. The DEHLG recently approved the contract documents and the tendering process should commence in the next 2 months with a start of construction estimated for early in 2009.</p> <p>Ennis WWTP is at the stage where issues with Public Private Partnership and cost benefit analysis must be resolved before the procurement of consultants can commence. It is expected that a new waste water treatment plant will be in place by end of 2012. The short-listing of contractors has taken place so as soon as the above issues are resolved the procurement process for consultants will commence.</p> <p>The Wastewater Discharge (Authorisation) Regulations 2007 now require local authorities to licence urban wastewater discharges where</p>

		the EPA are the regulators. Any data regarding WWTPs are available to the public on request. All plants are also subject to audit by the EPA in relation to the operations at the plant and data. Currently overloaded plants are on waiting lists to be upgraded
Sh_SWMI_016	Local authorities/public bodies and private individuals must be named and shamed and held accountable through individuals being held up as accountable	<p>Many existing legislative instruments places a duty on public and private bodies to prevent environmental degradation and have associated penalties and offences incorporated. In addition the Environmental Liability Directive is in the process of being transposed into National legislation. The legislation is intended to prevent and remedy environmental damage. It aims to hold operators whose activities have caused environmental damage financially liable for remedying this damage, and it aims to hold those whose activities have caused an imminent threat of environmental damage liable for taking preventive actions.</p> <p>Where breach of relevant regulations (e.g. such as the Waste Water Discharge (Authorisation) Regulations 2007) constitutes an offence, conviction in the courts will, in addition to penalties imposed, attract the type of public attention and criticism that the proposal envisages. Individual officers who, through negligence, consent or connivance facilitate such an offence are also considered liable in law to prosecution.</p>

### 3.2.2 Landfills, quarries, mines and contaminated lands

Submission Reference No.	Issues Identified	Response
Sh_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.
<b>Landfills</b>		
Sh_SWMI_003	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.
Sh_SWMI_009	Closed down landfills should always be capped.	
Sh_SWMI_003		
Sh_SWMI_009		
Sh_SWMI_002	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.	
Sh_SWMI_009	It was felt that the focus of this section was on dangerous substances and that other issues were not adequately addressed e.g. sediment and rock dust from quarrying, impacts of temperature variations between discharge waters and receiving waters etc.	It is intended that these issues will be addressed in the River Basin Management Plans.
Sh_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.
Sh_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”.
<b>Quarries</b>		
Sh_SWMI_009 Sh_SWMI_005	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.	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.
Sh_SWMI_005	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.	
Sh_SWMI_003 Sh_SWMI_009	Identified the potential conflict of interest with local authorities licensing and regulating quarries and often being substantial customers as well.	Noted.
Sh_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	Noted.

	now concluded with the exception of a small number of appeals to An Bord Pleanala.	
Sh_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.
<b>Mines</b>		
Sh_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.
Sh_SWMI_009 Sh_SWMI_028	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.
Sh_SWMI_009  Sh_SWMI_003	Significant bonds should be required of all current mining operations for rehabilitation of old sites.	This is a requirement under current licensing.
<b>Contaminated land</b>		
Sh_SWMI_003  Sh_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
Sh_SWMI_009	<p>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 requirement that farmers must prove crop P need with a soil test, or else use zero P fertiliser.</p>	<p>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.</p>
Sh_SWMI_013	<p>The development of a uniform environmental threshold P level is unreasonable as it neglects to consider the potential for P transfer. It may be more appropriate to use a phosphorus index for screening areas to determine the relative risk for P loss and to use this to allow more targeted follow-up assessments on the ground with a subsequent identification of prescriptions on agricultural activities/practices set to suit the environmental conditions.</p>	<p>The effectiveness of the National Action Programme under the Nitrates Directive is being monitored and 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.</p>
Sh_SWMI_009	<p>Felt that little, if any action will be implemented to control the impacts agricultural pollution of waters beyond the implementation of the Nitrates Regulations.</p>	<p>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.</p>

Sh_SWMI_003 Sh_SWMI_025	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 for the purposes of the Nitrates Regulations and other legislation are consistent among all local authorities and appropriate follow-up enforcement actions are implemented.
Sh_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.
Sh_SWMI_008 Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_SWMI_009	Inspections under the Nitrates Regulations should be on the spot, without notice.  No more than 3 days notice should be provided for inspections.	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 Authorities do not, generally, give any advance notice when carrying out such inspections.  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.
Sh_SWMI_003 Sh_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.
Sh_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.
Sh_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.
Sh_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.
Sh_SWMI_003 Sh_SWMI_032	Additional financial incentives must be provided to encourage and promote environmentally sensitive farming. Address funding from new EU programme to allow farmers to consider widening the natural habitat of the Shannon i.e. acres on either side fenced off	Additional financial support in the form of agri-environmental schemes, farm storage facilities or technological solutions may have to be considered in specific catchments.

Sh_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.
Sh_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.	<p>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.</p> <p>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.</p> <p>All potential methods of resourcing measures will be investigated.</p>
Sh_SWMI_017	Is there sufficient capacity (in land terms) to accommodate slurry arising from new tanks & developments?	All new planning applications for the installation of slurry tanks and other farm waste management structures are assessed according to Department of Agriculture Specs, Good Agricultural Practice Regulations, Water Pollution Legislation and other Environmental Legislation. All farm wastes generated on the farm are assessed as regards their volume produced, means by which they are to be collected, stored and disposed including the adequacy in meeting the required area of spreadlands and taking into account applications rates. Other considerations used in assessment of an application are: soil type, groundwater vulnerability, groundwater protection response matrix, abstraction source protection areas.
Sh_SWMI_003	Alternative disposal mechanisms for slurry (and	The Department of Agriculture, Fisheries and Food supported the

Sh_SWMI_009	<p>municipal sludge) other than land spreading need to be provided.</p> <p>The use of bio-digesters for the disposal of slurry should be encouraged and funding made available.</p>	<p>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 <a href="http://www.sei.ie/bio_chpgrants">www.sei.ie/bio_chpgrants</a>.</p>
Sh_SWMI_003 Sh_SWMI_009	<p>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.</p> <p>The Land Drainage Act still allows for the drainage and 'reclamation'/ infilling of wetlands.</p>	<p>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.</p> <p>The new Floods Directive will introduce a new method of assessing and controlling land drainage activities.</p>
Sh_SWMI_009 Sh_SWMI_003	<p>Clarify with the relevant statutory agencies the responsibilities for vegetation along the edge of water bodies.</p>	<p>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.</p>
Sh_SWMI_003 Sh_SWMI_024	<p>The cleaning of slurry tanks, spreader and spreading equipment from water bodies particularly lakes should be prohibited.</p> <p>Note problems with farmers washing out slurry tanks on lake shores.</p>	<p>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 slurry from the washing of slurry tanks and spreading equipment. Incidences should be reported to the local authority.</p>
Sh_SWMI_008	<p>The IFA seeks a cost benefit analysis of any further increases in buffer zones for fertilizer spreading over</p>	<p>Socio-economic studies will be completed as part of the agricultural mini-catchment programme to evaluate how cost effective measures</p>

	and above the requirements of the Nitrates Directive.	under the current National Action Programme have been. Modifications to measures will be identified where evidence indicates that water quality targets may not be achieved.
Sh_SWMI_003	The impact of intensive agriculture (particularly pigs and poultry) in the border areas of the Neagh Bann River Basin District is not addressed.	Intensive pig and poultry operations are registered through Integrated Pollution Prevention Control (IPPC) licensing governed by the Protection of the Environment Act 1993 and operated by the Environmental Protection Agency. IPPC licences prevent or reduce emissions to air, water and land, reduce waste and use energy/resources efficiently. An IPPC licence is a single integrated licence, which covers all emissions from the facility and its environmental management. Failure to comply with licence requirements can result in prosecution. For example, recently an IPPC registered piggery was prosecuted for a number of breaches of its licence including: carrying out land spreading activities other than in accordance of the Nutrient Management Plan that was agreed by the Environmental Protection Agency, failing to maintain a stock register and failing to maintain a site slurry/manure register.
Sh_SWMI_030	Spreading of agricultural waste onto land is controlled in a scientific way but does not allow for common sense to be applied in reality, such as spreading during wet summers and dry autumns as experienced in 2007. Producers of waste (e.g. piggeries and poultry operators) have to provide information at the planning stage to prove they have sufficient land for the spreading of their manure. Enforcement of this is a huge problem and needs to be addressed.	In accordance with the good agricultural practice regulations the periods when the land application of certain types of fertiliser is permitted are based on the active growing periods for maximum nutrient uptake, subject to suitable spreading conditions.
Sh_SWMI_031 Sh_SWMI_008	The farm improvement scheme has been suspended due to over-subscription. The importance of this scheme cannot be over-emphasised. Further phases of the scheme should be more targeted and focus on small and medium farm holders specifically.	The Farm Improvement Scheme was introduced by the Department of Agriculture, Fisheries and Food in July 2007 with funding of €79 million as agreed under the Partnership agreement, <i>Towards 2016</i> . The Scheme was suspended on 31 October 2007 as applications received had reached this level of funding. It was specifically made clear, at the time of its launch, that the Scheme would be terminated when this financial ceiling had been reached and this was also specifically provided for in the terms and conditions of the Scheme. 12,675 applications were received from farmers prior to the closing date of the Scheme and these applications are currently being processed up to the level of funding made available for the Scheme in the above-mentioned Partnership agreement.

<p>Sh_SWMI_009 Sh_SWMI_003</p>	<p>The dumping of animal carcasses into waterways must be addressed.</p>	<p>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.</p> <p>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 &amp; 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.</p> <p>However unscrupulous operators may illegally dump animal carcasses and incidences should be reported to the Local Authority.</p>
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### 3.2.4 Wastewater from unsewered properties

Submission Reference No.	Issues Identified	Response
Sh_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.
Sh_SWMI_003  Sh_SWMI_009	<p>A national system of licensing for proprietary systems with an inspection regime, clear responsibility for owners and effective penalties must be introduced.</p> <p>Percolation tests must be made mandatory and be completed by independent qualified scientists (with a charge included in the planning application fee).</p> <p>There should also be a system of accreditation and licensing for septic tank installation companies and sludge removal operators.</p>	<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"> <li>• Approval system for proprietary units.</li> <li>• Establishment of a National / Local Register of approved, qualified site assessors.</li> <li>• Standardisation of site investigation requirements across all Local Authorities – based on the EPA updated Guidance</li> </ul>

		<p>document for Single House Treatment Systems.</p> <ul style="list-style-type: none"> <li>• Certification of onsite wastewater treatment system installation.</li> </ul> <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>
Sh_SWMI_003 Sh_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>
Sh_SWMI_009	Seek clarity and elaboration on the statement that <i>“Legislation will be amended to clarify and elaborate the statutory basis for the licensing of discharges to soil”</i> .	Article 11(3)(j) of the Water Framework Directive (2000/60/EC) requires a general prohibition on direct discharges of pollutants into groundwater except where they are subject to a specified system of prior authorisation and provided the discharges don't compromise the achievement of the objectives established for that body of groundwater. Irish legislation is being revised and updated to comply with these requirements.
Sh_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.	<p>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.</p> <p>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.</p>

Sh_SWMI_003 Sh_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>
Sh_SWMI_003 Sh_SWMI_009	<p>If sewage infrastructure is installed near an unsewered property connection should be offered at a reduced rate or should be free.</p> <p>New properties near existing infrastructure should be required to connect to it.</p>	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 the RBD Advisory Councils. This is a policy decision for National Government.
Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_SWMI_009 Sh_SWMI_026	<p>Awareness raising is required on the effects of household chemicals on septic tank functioning e.g. bleach., or else ban their use</p> <p>Phosphates should be banned from domestic cleaning products.</p>	<p>This issue together with all water matters issues will be the subject of National and Local Awareness campaigns.</p> <p>Voluntary agreements exist to have phosphate free detergents with major suppliers for certain applications.</p> <p>The public awareness programme will highlight this and other issues.</p> <p>In a well designed, well located and well sited percolation area phosphorous will be largely removed by the percolation process.</p>
Sh_SWMI_003 Sh_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.
Sh_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

Sh_SWMI_003		<p>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.</p> <p>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.</p>
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### 3.2.5 Forestry

<b>Submission Reference No.</b>	<b>Issues Identified</b>	<b>Response</b>
Sh_SWMI_010	<p>Felt the report was too negatively focused. Noted the positive impacts of forestry:</p> <ul style="list-style-type: none"> <li>• Riparian zone planting provides stability, shelter and food for aquatic life</li> <li>• Planting of buffer zones protects against sources of pollution</li> </ul>	<p>The National Forest Estate covers a substantial surface (10%) of the country. It is generally located in the upland areas of catchments where the smaller feeder streams which are important salmonid spawning and nursery habitat locations. Whereas there are many positive benefits from forests there may be a potential to impact on water quality if forest operations are not carried out in a sustainable manner. This is done by the implementation of the Forest Service regulations which are mainly contained in its Code of Best Forest Practice, its Suite of Guidelines and the conditions attached to its various schemes and the licences which it issues.</p> <p>Much of the commercial forest estate in Ireland was planted in the early 1960s prior to the introduction of the current Codes of Practice. Buffer zones and silt control measures would generally not have been installed resulting in planting to stream banks. It is these forests which are now being felled to provide wood material. Their management is a potential source of pressure on receiving waters, While guidelines exist for the harvesting of these areas, their restocking is not subject to specific guidance but it must meet the current afforestation standards. 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.</p>
Sh_SWMI_010	Noted concern about the issue of proportionality in the reports. The same space is allocated to forestry as	The Forest Estate comprises 10% of the land area of the country and is sometimes located in sensitive areas of catchments. The potential for

	wastewater and industrial discharges which are considerably more detrimental to water quality. This should be addressed in the RBMP.	impact on water quality may be significant if not managed in a sustainable manner.
Sh_SWMI_009 Sh_SWMI_003	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 (low yield class) or in sensitive areas (such as Freshwater Pearl Mussel catchments). Under the existing act a limited felling license may be issued under which the obligation to replant may be waived by the Minister. 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. Deforestation will also have a significant negative bearing on the national Carbon Sequestration balance, generate soil erosion and reduce future timber supplies to the wood industry.
Sh_SWMI_009 Sh_SWMI_003	Identified the need to comply with recent ruling from the European Court of Justice by implementing Environmental Impact Assessment to all sub-threshold afforestation in or near protected sites or species.  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.	European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001. (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 and all afforestation applications are checked for subthreshold EIAs (documented on the Forest Service IFORIS system). If they are included, the application is referred to the relevant statutory body for consultation. Updates of these areas are also updated on FS databases.  Fertilisation in relation to forestry is a separate issue and is regulated 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.  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, relevant Fisheries

	<p>Move away from over-reliance on conifers and increase diversity in planting with an increased broadleaf component.</p> <p>Low impact silvicultural systems should be implemented and there should be a shift away from over reliance on planting on marginal wet land.</p> <p>Increased use of effective buffer zones should be required.</p> <p>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>	<p>Boards and other Statutory Stakeholders 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.</p> <p>Coillte Teoranta follow the principles of Sustainable Forest Management. The long term effect of this policy is to produce uneven aged, multi-storey forest stands with considerable species diversity.</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. This will result in a move to better lands downstream and away from marginal soils in the more exposed upstream locations.. In 2006 broadleaf planting was 31.4%of all planting. The grant structure also favours planting of broadleaves (higher grant support).</p> <p>Buffer zones are required to be established under the Forestry Schemes Manual and Forest Service Guidance documents. As older plantations are felled buffer zones are being introduced as part of the overall management of the site. The minimum buffer zone requirement is 10m and may vary up to 25 m depending on slope conditions.</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 Woodlands of Ireland have published an information note entitled Native Riparian Woodlands - A Guide to Identification, Design, Establishment and Management. It addresses practical issues such as the management of existing native riparian woodland, restoring native riparian woodland on conifer plantation sites and the establishment of new native riparian woodlands on greenfield sites.</p>
<p>Sh_SWMI_009 Sh 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’.</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 a primary conduit for acidification</p>

	<p>without referring to the acidic nature of the needles of Sitka Spruce which cause the more 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>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 and the associated forest litter on such poorly buffered sites is being considered in the context of acidification impacts. 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.</p> <p>The wood derived from Sitka Spruce is known as White Deal and is the wood type in most demand by the market (up to 90% of timber used in modern house building is White Deal or derived from it).</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 the forest and this will be considered where feasible as a measure. Forest Service also consults with NPWS and no planting occurs in a designated area without agreement of NPWS.</p>
<p>Sh_SWMI_009 Sh_SWMI_003</p>	<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 publications 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 updated based on best available knowledge at the particular time</p>
<p>Sh_SWMI_003</p>	<p>‘Tunneling’ where tree growth on a river bank blocks light to the river must be prevented.</p>	<p>Tunneling 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.</p> <p>Installation of buffer zones in both afforestation and restocking of sites</p>

		is now mandatory, which will eliminate the tunneling effect over time.
Sh_SWMI_009 Sh_SWMI_003	The use of forestry land for the spreading of sewage sludge is a serious concern.	<p>The application of sewage sludge to forests is not common practice as there are significant issues with access, nutrient contents and impacts on water quality associated with its use. The Forest Service have requirements specifying the use of slow release fertilizer, rates of application and concentrations in their Guidance documents.</p> <p>Sewage sludge does not meet any of these requirements. However, it has been used in experimental coppice willow plots but its use as a general purpose forest fertilizer would require significant study and evaluation before it would receive general approval from the Forest Service.</p> <p><b>Note for comment:</b> <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>

### 3.2.6 Usage and discharge of dangerous substances

Submission Reference No.	Issues Identified	Response
Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_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 <a href="http://www.epa.ie/whatwedo/licensing/">http://www.epa.ie/whatwedo/licensing/</a> .
Sh_SWMI_009 Sh_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.
Sh_SWMI_003 Sh_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

Sh_SWMI_030	A national education programme is required to inform the general public on the substances contained in household cleaning products as well as common garden products to achieve this	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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_011	Concerned about the usage of sheep dipping baths. A holistic cross border protocol is required	
Sh_SWMI_003 Sh_SWMI_009 Sh_SWMI_002 Sh_SWMI_026	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.
Sh_SWMI_012	Note that the inclusion of aquaculture in this section is misleading because it also refers to shellfish aquaculture where no chemicals are used. This should be qualified in future plans.	Aquaculture will be dealt with as a separate topic in the River Basin Plan. It is recognised that chemicals are only used in finfish farming. However there can be impacts from shellfish aquaculture when sites are dredged for harvesting.
Sh_SWMI_014	Chemical usage in fish farms should be independently monitored.	Work is underway to develop a national approach for regulating chemical use and discharge for finfish aquaculture in Ireland.
Sh_SWMI_026	Local Authorities spreading weedkiller on roadside verges.	Extensive, untargeted spraying of road verges with herbicide is an offence under S. 40 of the Wildlife Act 1976, while S.46 of the Wildlife (Amendment) Act 2000 places restrictions on the destruction of vegetation on uncultivated land during the period from 1 <sup>st</sup> March to 31 <sup>st</sup> August in any year. Local authorities are expected to follow the NRA guidelines which contain detailed procedures on the control of noxious weeds. The Minister for Environment, Heritage and Local Government has indicated to County Managers that it is his policy to prosecute where an offence under S.40 of the Wildlife Acts takes place (Circular Letter NPWS 2/08). The NRA are expected to issue comprehensive new guidelines on the control of noxious weeds and invasive species shortly.
Sh_SWMI_011	Request information on how domestic sewage sludge and agricultural sludge is disposed of.	The Waste Management (Use of sewage sludge in agriculture) regulations 1998, 2001 prescribe standards for the use of sewage sludge in agriculture. Close monitoring of soil and sludge is required and limits are placed on heavy metals and when and where sludge is spread in

		<p>order to reduce the risk of pollution. Ireland is fully compliant with European Union sewage sludge policy, and sludge management standards have been developed which utilise best international practice and are in excess of those set by the EU. All local authorities have sludge management plans in place that address the management and control sewage sludge in a progressive and environmentally sensitive manner.</p> <p>Disposal of agricultural sludge or slurry is controlled by the Nitrates Regulations under the Nitrates Action Programme.</p>
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### 3.2.7 Physical modifications

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009 Sh_SWMI_003  Sh_SWMI_009	<p>Called for the introduction of a comprehensive registration and authorisation system to control the impact of physical modifications.</p> <p>Noted that the Office of Public Works should not be the statutory authority to administer new regulations.</p>	<p>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.</p> <p>The competent authority for administering the necessary measures and controls has yet to be determined.</p>
Sh_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</p>	<p>Comments are noted and will be considered in the development of measures and controls in relation to physical modifications.</p>

	in relation to water management issues.	
Sh_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.
Sh_SWMI_003 Sh_SWMI_009	Headwater habitats need to be 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.
Sh_SWMI_003 Sh_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 <sup>nd</sup> 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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_SWMI_009	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.
Sh_SWMI_009	Recommend that the principle of urban Total Impervious Areas (TIA) be accepted as another aspect of physical modifications.	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.

	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.	
Sh_SWMI_003 Sh_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.
Sh_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.
Sh_SWMI_030	The maintenance of rivers nationally is inconsistent, only defined schemes are maintained by the OPW. There needs to be consistency at a national level. Habitats have been lost in the Shannon as a result of runoff from flooding that causes water quality to deteriorate. There has been a failure of maintenance of the waterways. Conservation can take precedence over human impacts when dealing with water management issues and flooding.	Comments are noted and will be considered in the development of measures and controls in relation to physical modifications.

### 3.2.8 Abstractions

Submission Reference No.	Issues Identified	Response
Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_003	Rain water harvesting needs more focus.	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.
Sh_SWMI_009	Requirements for harvesting should be included in new planning consents and grants should be provided for retrofitting of harvesting equipment.	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.
Sh_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. 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.
Sh_SWMI_003 Sh_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.
Sh_SWMI_018 Sh_SWMI_003	Abstractions are my big concern. The Shannon RBD needs serious protection measures. While there are ones in place, the fact that our capital city wishes to	The abstraction sources proposed along the Shannon to supplement the existing sources supplying the water needs of the Greater Dublin region are being investigated on the basis of "sustainability" which means

Sh_SWMI_030	<p>utilise it for drinking water purposes leaves the Shannon wide open to abuse.</p> <p>The water needs of the counties along the Shannon should be assessed and given priority over the needs of the Greater Dublin area. Dublin City Council can then use any additional remaining abstraction capacity as long as the base requirement for the Shannon counties is left untouched. An overall study of our water needs as a whole, not just for abstraction, is required. This should be a full scale study of the water needs of the region taking into account recreation, agriculture plus most importantly the land needs so that flooding in the upper Shannon is also addressed.</p> <p>Consideration should be given to storing water at times of flood for human consumption. Consideration should be given to water supply networks linked to the various sources of water.</p>	<p>identifying water availability for Dublin's abstraction which does not impact on existing/future uses for other stakeholders in the Shannon catchment.</p> <p>A Hydrological &amp; Hydraulic model of the Shannon has been developed as part of the study to enable abstraction impacts from various Shannon storage locations to be assessed under a wide range of climatic conditions, both historic and also involving future climate change scenarios. The model incorporates the requirements of the water level management needs of the Shannon system which is operated jointly by ESB and Waterways Ireland. This management system was developed to take account of all Shannon stakeholder interests (e.g. navigation, fisheries, flooding, water quality, water supply, etc.) and all abstraction proposals are being examined for compliance with the requirements of ESB / WI Regulations as a minimum. Abstraction proposals for Dublin from various Shannon locations are also being examined in the context of potential abstractions for local catchment use, both existing and those which may arise in the future.</p> <p>In parallel with the technical assessments, Environmental assessments are also ensuring that any abstraction proposals comply with all requirements of relevant EU Directives (Strategic Environmental Assessment (SEA) Directive, Habitats Directive and Water Framework Directive) and also relevant Irish legislation. Environmental assessment involves two phases of formal public consultation under the SEA process and stakeholder concerns arising from public consultation are being taken on board as part of the assessment process, thus ensuring that the preferred option to emerge from the selection process will comply with all key sustainability requirements (i.e. environmental, economic and social) in appropriate balance.</p>
Sh_SWMI_025	<p>Small lakes have had large areas of their invertebrate zones exposed due to uncontrolled abstraction. Water levels should be monitored.</p> <p>Water recycling/harvesting should be encouraged.</p>	<p>It is agreed that water levels in lakes used for abstraction should be monitored and indeed this is the case with many lakes used for abstraction. Lakes identified as being at risk from abstraction pressures will be prioritised for water level monitoring, where this is already not the case.</p> <p>It is expected that water conservation measures, such as water recycling and rainwater harvesting, will become more widespread particularly in the light of climate change impacts.</p>
Sh_SWMI_026	<p>Need to restrict drilling for groundwater, especially in karst areas.</p>	<p>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</p>

		these processes.
Sh_SWMI_031	<p>Direct abstraction from Inchiquin Lake would not have a major adverse impact on ecology of lake if the outflow at the old sluice at Clifton was addressed. Sluice gate long gone and this causes lake to run dangerously low in times of low water.</p> <p>Recommend grants or tax breaks to install rainwater recycling systems in homes and businesses.</p>	<p>The levels of abstraction from Lough Inchiquin have not changed over the last four or five years at all. Regarding the sluice gate, the Council again have been in discussion with the National Parks and Wildlife Service about this matter and are in the process of having an Ecological assessment of the proposal to re-erect the sluice gate carried out. We must revert again to the NPWS once the Ecological Assessment is available before any works may commence.</p> <p>Note is taken on comments on the recycling of rainwater especially in domestic dwellings. Clare County Council has a water conservation project ongoing in the county, which is attempting to reduce the amount of water, which consumers are using through all aspects of their lives. Water Services with the Planning section should examine this suggestion in the context of water conservation with a view to implementing a proposal in this area in the future.</p>

### 3.2.9 Local Issues in the Shannon IRBD

#### 3.2.9.1 Invasive alien species

Submission Reference No.	Issues Identified	Response
Sh_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.
Sh_SWMI_009 Sh_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.
Sh_SWMI_003	Noted that recommendations from the Quercus invasive species report should be implemented and resourced on an all island basis <a href="http://www.jncc.gov.uk/PDF/BRAG_NNS_Stokesetal-InvasiveSpeciesinIreland.pdf">http://www.jncc.gov.uk/PDF/BRAG_NNS_Stokesetal-InvasiveSpeciesinIreland.pdf</a>	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.
Sh_SWMI_030	<p>Is there monitoring or are there checks on large boats entering the ports of Foynes and Limerick in terms of bilge water and physically attached alien species? Large tankers in particular travelling across the Atlantic are required to discharge their bilge waters 2 miles off shore, and it is felt that this could be a source of introduction of alien species. These tankers should be required to treat this water before they discharge it. It was queried how this could be enforced</p>	<p>Many countries including Ireland have signed up to a Ballast Water Convention in order to regularise the control of ballast water from ships departing from certain world ports to other areas whereby, the possibility of discharging contaminated water at the destination port gives cause for concern. Ireland, like many other countries has not fully ratified the convention due to the lack of clear guidelines but it is understood that these are soon to be completed in the form of an IMO (International maritime Organisation) circular.</p> <p>What has been generally agreed is that certain vessels (depending on ports of origin and destination ports) will be required to undergo at least two full exchanges of ballast water before entering port. This procedure must take place at least 200 Nm from land and in at least 200 Meters of water. Certain governing factors will apply to the aforementioned operation as for example, this procedure must not adversely affect the vessels stability i.e. by introducing a large free surface effect associated with “slack” tanks reducing the Geometric centre of gravity (G.M.) thus endangering the vessel. Furthermore it is highly likely that monitoring equipment will be a requirement in the future.</p> <p>The Shannon Estuary is rather unique in that most vessels entering the estuary do so to discharge, i.e. we import far in excess of our exports. As a consequence these vessels <u>load</u> ballast water in our ports as opposed to <u>discharging</u> water. The only real exceptions are vessels loading bauxite in Aughinish and scrap in Limerick, and in such cases these vessels are for the most part engaged in European trade only.</p> <p>In summary, Ireland does not currently require Ballast water exchange or monitoring, but this position is due to change in the near future when the convention is fully ratified.</p>
Sh_SWMI_025	Educate general public/ water users of implications of spreading these pests. Plants shown to be damaging to natural ecosystems (e.g. African pondweed) should have their plant passports revoked and removed from sale immediately.	It is acknowledged that greater awareness among the general public and water users in particular is required in relation to the dangers posed to native plants/species from non-native ones.

### 3.2.9.2 High quality areas

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009	Alternative objectives must not be applied to protected areas.	The mechanism for alternative objectives is clearly set out in the Water Framework Directive and must be adhered to.
Sh_SWMI_009 Sh_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.
Sh_SWMI_002 Sh_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 (see above).
Sh_SWMI_009	Public access along and around waterways is important to give people a greater interest in these waterbodies and, thereafter more understanding of the need to protect them (along with all the potential implications of that)	It is acknowledged that public access to waterways is important but it is essential that where it is provided, that it does not impact negatively on the habitat and species contained therein.
Sh_SWMI_009	Land uses that may ultimately lead to impacts on water status need to be considered. This would include private peat extraction, overgrazing, and siting and management of wind turbines	To ensure that impacts, on water quality, from development are positive, spatial planning and river basin planning processes need to be properly integrated ensuring sustainable development. The river basin planning process will inform the spatial planning processes of the potential risks posed by various potential forms and patterns of development to the achievement of the water objectives set out by river basin management plans. In turn, these potential risks to water quality objectives must be considered by planning authorities, through the Strategic Environmental Assessment (SEA) process, when preparing their statutory development plans.
Sh_SWMI_009	Management Plans in transition zones around lakes are necessary for species and habitat conservation	The Minister for the Environment, Heritage and Local Government may enter into a management agreement with any owner, lessee or occupier

	related to water status management	of land forming part of a Natura 2000 or land adjacent to such a site for the management, conservation, restoration or protection of the site or of any part of it, e.g. Farm Plans approved by the Minister. The Minister must establish the appropriate conservation measures in respect of designated Natura 2000 sites including, if necessary, management plans, either specifically designed for the sites or integrated into other appropriate plans. Land-use planning and development policies must also take account of activities outside the Natura 2000 sites where those activities may affect the integrity of the Natura 2000 network. Thus the upstream catchment area of a water dependent Natura 2000 site must be managed in a way consistent with the conservation objectives for the site. When deciding whether a site specific conservation management plan is appropriate for the purpose of achieving the conservation objectives of a particular site the Minister considers why is the conservation plan necessary in addition to the existing planning and development controls in place, what are the main threats to the site, what precise objectives are to be achieved and within what timeframe, what management measures are to be implemented and their associated costs, and what public authorities are responsible for implementing the measures.
Sh_SWMI_025	Forestry harvesting in highly sensitive areas must be taken with great care	All tree felling in Ireland is subject to licence. Licences are issued by the Minister for Agriculture and Food [Forest Service] after consultation with the appropriate statutory stakeholders. These include NPWS, the Fishery Boards, LAs and DEHLG. The Forest Service has up to date data on all sensitive areas and due care is exercised by the implementation of its Guidelines, Code of Practice the conditions it attaches to licences and approvals. Where felling applications are referred to the LA from the Forest Service, they are assessed with regard to environmental and water quality issues where any particular issues regarding the catchment in question are highlighted and reported to the Forest Service and that full adherence to the Code of Best Forest Practice is crucial.
Sh_SWMI_026	Sensitive Areas – concept of ‘in perpetuity’ has to be included in any future environmental protection controls	While this concept has some merit it is difficult to be sure that changes will not be required at some time into the future.
Sh_SWMI_024	The vast turlough regions in a triangle between Castlecoote, Roscommon and Athleague towns in Co Roscommon describe a special status overlying limestone. These floodlands are very vulnerable to	There are five turloughs in the Castlecoote, Roscommon and Athleague areas which are designated as Special Areas of Conservation i.e. Four Roads Turlough SAC 1637, Lough Funshinagh SAC 611, Lough Croan Turlough SAC 610, Ballinturly Turlough SAC 588, and Lisduff

	<p>intensive farming practises and slurry and sludge spreading. Connected by underground waterways, indicated by springs, wells and subsidances and connected overland when high floods and heavy rain occur, special interest from a water protection strategy should be put in place which require financial compensation rather than penalties, as a carrot to swing public opinion rather than create an “us and them” mentality.</p>	<p>Turlough SAC 609. Turloughs are listed as priority habitats in Annex I of the EU Habitats Directive, 1992. There are other smaller turloughs in the Castlecoote, Roscommon and Athleague areas but are not of sufficient significance to warrant SAC designation. There is the potential to significantly impact the ecological communities within turloughs through the run-off and the inappropriate spreading of wastes such as slurry and sewage sludge. However, farmers with land in an SAC have to take account of the ecological requirements by farming in an environmentally sensitive and friendly way but have two options to seek financial compensation:</p> <p>(a) Join the Rural Environment Protection Scheme (REPS) - Farmers with lands in an SAC receive additional payments on top of the standard REPS payment rates;</p> <p>(b) Land-owners seeking compensation who do not join REPS will be required to manage their lands in accordance with a farm plan or management agreement drawn up by the NPWS. Where the operation of such a plan gives rise to income loss or extra costs, these will be compensated for by NPWS.</p>
Sh_SWMI_027	<p>Re-habilitate Westfield Park Wildlife Sanctuary after works carried out during road construction adversely affected the water supply into it.</p>	<p>The submission on Westfield refers mainly to the effect of the Condell Road construction on wildfowl populations and implementation of the Natura report recommendations.</p> <p>Westfields is part of the lower river Shannon SAC which is particularly important for the numbers of wintering wildfowl. The nature of Westfields changed with the construction of the Condell Road, and the area may have proved less suitable for wildfowl to wintering in large numbers. The wintering wildfowl would have relocated within the area. Wintering wildfowl are migratory and are subject to pressures, not just local pressures which may affect their numbers. It is unlikely that the new road (now over 20 years old) has had a major impact on the bird numbers except for the snmpecific numbers immediately resident at this location. All construction works were undertaken in accordance with relevant legislation and all interested parties were consulted at the time.</p> <p>In relation to linking the open bodies of water – this is under consideration and is subject to funding being available. One such option is to link the open water at Westfields with the River Shannon using a redundant sewer beneath Condell Road. In their report of October 2007, White Young Green Consulting Engineers carried out predictive hydrological calculations to estimate volume of water exchange using this redundant sewer at the Westfields wetlands. The purpose of the</p>

		<p>calculations was to determine if there was benefit in using the 375mm redundant sewer to allow additional tidal water enter (and exit) the wetland.</p> <p>An analysis of the potential volumes of tidal water which could be introduced through the redundant sewer and as a method of increasing water circulation this phase of the proposed works would have limited effectiveness.</p> <p>In relation to upgrading of walks etc the Limerick City Council's Traffic &amp; Infrastructure Dept have advised that the plans for the proposed walk along Cleeve's Bank are underway. The proposal includes strengthening and raising of the river bank from Condell Bridge to Coonagh (in consultation with the Office of Public Works) and resurfacing of the path surface.</p>
Sh_SWMI_029	<p>Closer monitoring and control of inappropriate activities in areas designated as SPA, SAC, NHA. e.g. activities by a bare foot skiing club near Portland, north of Portumna - disturbing nesting corncrakes, erosion to banks where kingfishers nest, unofficial construction of a building and jetty on Sally Island.</p>	<p>Monitoring of SACs, SPAs and NHAs is carried out as much as available resources allow. However if a member of the public is aware of inappropriate activities being carried out in these areas then it should be brought to the attention of the relevant authorities e.g. National Parks and Wildlife Service, local authority.</p>

### 3.2.9.3 Cruising and Boating

Sh_SWMI_009	The development of marinas encroaches on wildlife and habitats. It is unclear what agencies are responsible for the regulation of these on the Shannon (and elsewhere), and it is imperative that they are required to consider environmental matters when considering the siting and proposals for development of these structures.	Development of marinas is subject to the planning process, just like any other developments. Environmental matters are addressed as part of this process.
Sh_SWMI_017  Sh_SWMI_009	More information should be directed at private boat owners rather than hire companies. Byelaws for the control of jet skies / powerboats are a good idea, but greater enforcements required. Existing bye-laws intended to restrict speed of boats are viewed as un-enforced and ineffective. The problem of excessive speed (and all associated risks) is seen as likely to escalate as operators rely on increasingly common GPS (Global Positioning Systems) to allow them to cruise at high speeds on water bodies, such as Lough Ree	Waterways Ireland disseminates a wide variety of information to the general public through their marine notices, their website and through communication with the Inland Waterways Association of Ireland. Waterways Ireland is currently in the process of developing new byelaws that address all personal water craft.
Sh_SWMI_009	The absence of any regulation governing the size (length, height or draft) of craft operating on the Shannon is seen as a serious problem.	Infrastructure constraints (e.g. bridges, locks) determine the length, height and airdraft of craft size. Thus it is self-regulatory.
Sh_SWMI_009	Is it necessary to give some consideration to whether total numbers of boats on the Shannon may need to be controlled.	There is adequate capacity on the Shannon system to cater for the existing numbers of boats, particularly when compared to other European waterways.
Sh_SWMI_009 Sh_SWMI_017 Sh_SWMI_018	There is no enforcement of existing requirements for boats to have storage/holding tanks for sewage. Most private craft have no waste storage (for sewage or other materials). It is clear therefore that much waste is still being disposed of directly to the Shannon (and other water bodies). This source of pollution needs to be addressed.	There are two types of older vessels on the Shannon Navigation: one has a toilet discharging into a holding tank; the other has an Elsan toilet. Pump outs are available throughout the system to accommodate the pumping out of holding tanks and sluicing units are provided in service blocks for discharging effluent from Elsan toilets. Any vessels which do not have either of these facilities are in breach of the Shannon Navigation Byelaws and these byelaws will be enforced by Waterways Ireland.
Sh_SWMI_009	Hired vessels should all have working, sealed and controlled sewage holding tanks in place.	WI have requested hire companies to put seals on levers in the closed position to prevent discharge direct to watercourses.

Sh_SWMI_009	Pump out stations need to be monitored, and some consideration given to the number of craft using the waterway(s) and the volume of waste being pumped out. This will indicate the scale of the pollution problem and highlight the need to address it.	There is a network of pump out facilities along the Shannon Navigation that provide adequate infrastructure for pumping out holding tanks. These are owned and maintained by Waterways Ireland or by individual County Councils. Waterways Ireland is currently in discussion with several county Councils regarding the upgrading of pump out facilities. Facilities which are not functioning adequately should be brought to the attention of Waterways Ireland or the relevant County Council as appropriate.
Sh_SWMI_019	Existing pumping facilities are not being used – no incentive to boat owners to take time to empty tanks. How to enforce – swipe card in all areas?	Swipe cards are available from all Waterways Ireland offices and from the patrollers on the Shannon Erne Waterway. They are also available from local retailers in waterways towns. A list of retailers currently selling swipe cards is available on our website ( <a href="http://www.waterwaysireland.org">www.waterwaysireland.org</a> ) under Navigation Information.
Sh_SWMI_009	An individual boat log for pump-out activities should be a requirement for all vessels with waste storage facilities.	There is an onus on all boat owners/operators to behave in a responsible manner. The suggestion of each individual boat maintaining a log of its pump-out activities is seen as impracticable and unenforceable.
Sh_SWMI_021	Dredge the river and lakes for the cruisers and small craft. Consult BNM	Waterways Ireland carries out routine maintenance dredging and vegetation control activities as required to maintain the navigation channel of the River Shannon.
Sh_SWMI_026	Sewage discharge from boats and excessive boat speeds/wakes. Suggest a ‘Code of Best Practice Boat Handling’ notice in all hire cruisers. Also make laws similar to ‘dangerous driving’ on roads. Third party insurance should be mandatory for all boat hirers.  Existing bye-laws intended to restrict speed of boats are viewed as un-enforced and ineffective. The problem of excessive speed (and all associated risks) is seen as likely to escalate as operators rely on increasingly common GPS (Global Positioning Systems) to allow them to cruise at high speeds on water bodies, such as Lough Ree.	Sewage discharge from boats – see response above re pump-outs. Excessive boat speeds/wakes and Code of Best Practice Boat Handling’ - Waterways Ireland’s <i>Good Boating Guide</i> is available to all users of the waterways. The issue of boat masters operating boats in a dangerous manner is dealt with under section 13 of the current byelaws under speed restrictions. The issue of insurance will be dealt with in the new byelaws which are currently under development. Speed limits are set out in the Bye-laws and signs are visible. WI Inspectors enforce the restrictions to the best of their ability and resources. However a parallel can be drawn to our roads and the resources required by Gardai to enforce speed limits.
Sh_SWMI_030	Licensing of all private cruisers is required, not just the hire companies. Enforce bye-law about holding tanks on boats. Pump-out facilities should be provided in marinas where attendants can help and maintain them.	Under the current byelaws all vessels other than boats (defined as designed to be propelled primarily by oars or sail and not propelled by an engine of more than 15 horsepower) must be registered. It is intended that the new byelaws shall require all boats, vessels and personal water craft to be registered.
Sh_SWMI_009	The significance of the problems associated with	The issue of opening new navigation channels is dealt with through the

	<p>cruising and boating on the Shannon are unique and require to be specifically, actively and effectively dealt with. In particular the issue of opening new channels for navigation needs to be very carefully considered on the basis of ecological impacts.</p>	<p>planning process and its associated environmental requirements. An example of this process at work can be seen in the recent application to have an extension of the navigation channel to Annagh, near Dowra, which was rejected by An Bord Pleanala.</p>
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### 3.2.9.4 Peat extraction

Sh_SWMI_009	<p>It was felt that problems stemming from peat extraction are common throughout the Shannon District and that to refer to them as “localised” is to minimise the issue</p>	<p>The use of the term ‘local issues’ in the Water Matters booklet indicated that it was not a significant pressure throughout the country (i.e. across all the other RBDs) but was seen to be more a ‘local’ issue to the Shannon IRBD.</p>
Sh_SWMI_009	<p>Peat silt covering large areas of North Lough Derg is a serious problem</p>	<p>While the licensing of peat extraction in areas greater than 50 hectares has had significant impact in reducing the levels of peat silt being lost from these areas, there is a historical issue of peat silt build-up. Peat silt build-up (deltas) has been observed at the head of Lough Derg (R. Shannon Flood Risk Management Opportunities – OPW report, 2004).</p>
Sh_SWMI_017	<p>Silt traps (Bord na Mona) at Lanesborough often not maintained &amp; overflowing occasionally</p>	<p>The bogs at Lanesborough are part of the Moundillon Group of Bogs which are operated under an Integrated Pollution Prevention Control (IPPC) Licence issued by the EPA in 2000. Under this licence and its 14 conditions relating to emissions to water, air and land, Moundillon Group of Bogs must operate to strict codes of practice, procedures and emission limit values. These conditions were applied to the existing network of silt lagoons in Moundillon prior to Licensing in 1999, bringing it to over 120 of these lagoons servicing the entire group of bogs, which are cleaned at least twice per annum and more frequently if the fortnightly inspections dictate. A number of these silt lagoons are sampled, in accordance with the IPPC Licence, on a daily and quarterly basis, by both Bord na Mona and the EPA’s own monitoring team. The fortnightly inspections, as required by the IPPC Licence, involve an inspection of the silt levels in the lagoons and the results of these inspections form the basis of the silt cleaning roster. The level of compliance, derived from compliance with the Emission Limit Value set down in the Licence, for the past 4 years since 2004 is</p>

		97, 99, 100 and 100% respectively. As required by the IPPC Licence, in the Annual Environmental Report, all complaints regarding any aspects of silt control must be logged at the main office and notified to the EPA with investigations and corrective actions. There have been no complaints received at Mountdillon regarding its silt control.
Sh_SWMI_021	Weeds as result of Bog silt from Bord na Mona. Acres of reeds, rushes growing in the water, mostly reeds. Water bed and water dirty, bog dust from dust of Bord na Mona.	Weed growth in water bodies is caused by river sediment and nutrients and is an on-going maintenance issue in all river catchments, whether they are peatland or mineral soils. Bord na Mona are the only <u>licensed</u> peat extraction operators in Ireland, where it operates under eight Integrated Pollution Prevention Licences issued and enforced by the Environmental Protection Agency. The licences cover all peat extraction operations under Bord na Mona's control and include the management of over 700 silt ponds, treating all run-offs from production bogs. These silt ponds are inspected fortnightly, sampled on a quarterly basis and de-sludged bi-annually, and are subject to inspection and auditing by the EPA.
Sh_SWMI_029  Sh_SWMI_009	Poor management of trap drains & pump traps on milled peat bogs.  Poorly maintained filtration ponds are a particular problem. Silt from peat also causes flooding due to siltation causing the bed of the river to be raised	Bord na Mona's milled peat operations are all licensed under IPPC Licence to the EPA. Under these Licences, all of its silt settlement lagoons are visually inspected fortnightly, sampled to establish efficiency quarterly and are de-sludged on a bi-annual basis. All of its pumping operations are located prior to the silt lagoon designed for that bog catchment, so all water discharged from all bog catchments is treated before discharging to the stream or river.
Sh_SWMI_030	The huge quantities of peat in the Shannon channel is affecting the rate of flow of the river and this may contribute to local flooding issues. The cause is thought to be peatland activities, mainly those of Bord na Móna (e.g. Boora, Blackwater)	Bord na Mona Energy Ltd operates in the Shannon River Catchment under three IPPC Licences issued and regulated by the EPA. These licences contain 14 conditions by which Bord na Mona must operate, including silt control. Strict emission limits are applied under each licence relating to Suspended Solids run-off from production bogs. There are currently 514 operational silt ponds servicing all Bord na Mona production bogs in the Shannon catchment. These are inspected every 2 weeks, in accordance with condition 6.7 of the licence, and are de-sludged at least bi-annually, and as inspections dictate. The silt pond maintenance is carried out by four dedicated silt control machines, operating out of the three licensed areas. The operation and compliance with these IPPC Licences is inspected and audited by the EPA Office of Environmental Enforcement. Bord na Mona Energy is the only IPPC Licensed peat extraction operator in the Shannon catchment and rejects the claims by submission to the SWMI, that there are huge quantities of

		peat in the Shannon that have originated from its peat extraction operations, and that any of Bord na Mona's activities are contributing to local flooding issues on the Shannon.
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### 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 Climate change

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009 Sh_SWMI_002 Sh_SWMI_003 Sh_SWMI_004 Sh_SWMI_011	Felt climate change was not dealt with adequately in the reports.	Consideration of climate change within the Water Framework Directive programme was at a very early stage at European level when the 'Water Matters' report was prepared.  An approach has now been agreed and this issue will be addressed in the River Basin Management Plans.
Sh_SWMI_009 Sh_SWMI_002	Noted some of the potential effects of climate change: <ul style="list-style-type: none"> <li>• Reductions in rainfall will result in less water being available to dilute organic effluent.</li> <li>• Increased temperatures will affect water oxygen levels.</li> <li>• Increased vulnerability of groundwater to pollution from increased runoff and also from incursion by sea water resulting from increased sea levels.</li> <li>• Impacts on wetland ecosystems that are sensitive to changes in water balance.</li> </ul>	Comment noted.
Sh_SWMI_009 Sh_SWMI_003 Sh_SWMI_006	Proposed that the draft river basin management plan is climate change 'proofed.'	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.'

Sh_SWMI_004	<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) Climate Change: Refining the Impacts, Environmental Protection Agency, Ireland, Government Publications, in press.</p>	Agree.
Sh_SWMI_009	Expressed concern for the potential for climate change to be used a ‘catch-all’ excuse for not achieving good ecological status.	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.

### 3.3.2 Aquaculture

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009 Sh_SWMI_003 Sh_SWMI_002	<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.</p>
Sh_SWMI_009 Sh_SWMI_002	<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"> <li>• Increased nutrient loading and organic pollution around cages</li> <li>• Unauthorised disposal of waste</li> <li>• Breaches of sea lice limits/infection of wild fish</li> <li>• Decline of wild salmon and sea trout numbers</li> <li>• Use of dangerous substances</li> </ul> <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:  <a href="http://www.agriculture.gov.ie/publicat/publications2008/SeaLiceControlStrategy.doc">http://www.agriculture.gov.ie/publicat/publications2008/SeaLiceControlStrategy.doc</a></p>

### 3.3.3 Fish stocks

Submission Reference No.	Issues Identified	Response
Sh_SWMI_021	<p>Fish stocks cannot survive into the future, stop net fishing as nets are catching others which die as they cannot get out of net.</p> <p>Cut back the reeds at shores and kill the roots.</p>	<p>The only legal method to fish is with rod and line and in three main areas licenced nets:</p> <ul style="list-style-type: none"> <li>(i) Commercial netting for salmon now only occurs on the River Feale which is closely regulated and there is no evidence other fish are being taken. All other salmon netting in the Region has been prohibited on conservation grounds</li> <li>(ii) Commercial draft netting for wild brown trout only occurs on Lough Ree under licence and there is no evidence of interference with other fish stocks</li> <li>(iii) The third area is commercial for eels using fyke and coghill nets which occurs throughout the Shannon. Studies undertaken by the ESB have shown very limited by catch</li> </ul> <p>Illegal fishing affecting all fish species does occur and the Shannon Regional Fisheries Board seeks to prevent and detect such activities. This illegal netting does cause damage to fish stocks and nets left for long periods or “lost” in the waters of the Shannon catchment kill fish on an ongoing basis. The Board is very active in dealing with such reports and prosecutions have been taken over the years. Any reports of illegal netting activity should be passed to the ShRFB at 061 300238.</p> <p>Cutting back reeds at shore lines takes place at certain locations where there is heavy angling pressure to create swims for coarse anglers. To carry out widespread reed cutting is not sustainable. Reeds along riparian zones form a health part of ecosystems and form the substrate for coarse fish spawning.</p>

<p>Sh_SWMI_030</p>	<p>The decline of fish, particularly bream in lakes, especially in Leitrim, is a concern. If restocking is to take place, it should be with bream. The decline in populations is having an effect on fisheries tourism with a significant decline noted in recent years.</p> <p>There is evidence that there is no resident fish in the R. Shannon in Limerick. Fish only come in with the tide – why?</p>	<p>The Shannon Regional Fisheries Board, in co-operation with Leitrim County Council and other agencies, undertook a major study on fish stocks in the Leitrim lakes as part of the <b><i>Cross Border Angling Tourism Development Project</i></b> and found good stocks throughout the county. The report is available from the Shannon Regional Fisheries Board. The stocking of coarse fish in this area is not undertaken by the Board and is not seen as necessary at this time, as there are good stocks of wild coarse fish available, borne out by the catches in recent angling competitions.</p> <p>The River Shannon in Limerick is within the upper reaches of the transition zone i.e. the tidal section - so fish numbers will not be static as would be the case for a freshwater lake. There are resident brown trout (slob trout), dace, eel, flounder, etc - in fact technically there could be more than 20 species. Smelt spawn here in Spring etc. Salmon and sea lamprey ascend the rivers and this is verified by fish counters in Mulkear and Ardnacrusha. On the Mulkear over 10,000 salmon were recorded passing upstream in 2007, an increase over 2006 when just over 4,000 went through. There is a busy salmon angling fishery located along the river up through the city. Surveys undertaken in 2007 showed a very high concentration of salmon in the Shannon at a site in Limerick City and further upstream electrofishing surveys have shown that there is a very large diversity of juvenile fish species found such as perch, dace, trout, salmon, pike, roach, bream, gudgeon and hybrids. Fisheries Board staff have encountered all species of coarse fish such as bream and roach being fished in Limerick city. Pike angling is a very popular pass time of anglers in the area also. Thus the evidence of the Fisheries Board is that, rather than there being no resident fish in the R. Shannon in Limerick, in fact the contrary is true.</p>
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### 3.3.4 Marine and estuarine issues

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009 Sh_SWMI_003 Sh_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).	<p><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.</p> <p>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.</p>
Sh_SWMI_009	Queried the support of departments regulating the marine environment to the implementation of the Water Framework Directive.	<p>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.</p> <p>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.</p>

### 3.3.5 Economics

Submission Reference No.	Issues Identified	Response
Sh_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.
Sh_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.
Sh_SWMI_006	A truly sustainable approach is required. Social and economic requirements need to be set within environmental limits in order for development to be truly sustainable.	A wide range of social, economic and environmental costs and benefits are associated with the achievement of good status and will be considered.



	<p>There needs to be consistency at a national level.</p> <p>The ESB have a manual water level control at the weir in Athlone. The gates need to be automated. By not opening the gates during a flood event flooding can occur upstream, whereas opening the flood gates can cause flooding downstream.</p> <p>Conservation can take precedence over human impacts when dealing with water management issues and flooding.</p> <p>Habitats have been lost in the Shannon as a result of runoff from flooding that causes water quality to deteriorate. There has been a failure of maintenance of the waterways</p>	<p>(CFRAMS) will be completed for the Shannon catchment which, as part of taking a holistic approach to flood risk management, will be addressing the various water level control mechanisms. It is acknowledged that it will be a few years before this CFRAM is completed but it is recognised that the level management on the Shannon is complex and will require this more thorough &amp; holistic approach to devise workable solutions.</p> <p>The Sluice gates at Athlone are currently operated by Waterways Ireland personnel under instructions from ESB (Ardnacrusha). The sluices are opened if the river level above Athlone Weir is less than 0.09m above the weir crest, provided that the river below Athlone is not in flood. All sluices are closed during floods and all flow discharges over the weir.</p> <p>ESB does not see a need for the automation of the sluice gates at Athlone, either for flood control or navigation purposes. The automation of water control gates conflicts with ESB's current policy in this regard. This policy requires that movements of water control gates are witnessed. The automation of the gates and their operation without being witnessed increases the risk of faulty or unauthorised operation of the gates. Such occurrences could exacerbate flooding downstream of Athlone Weir.</p>
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### 3.3.7 Water charging

Submission Reference No.	Issues Identified	Response
Sh_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.
Sh_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.
Sh_SWMI_008	Proposed the introduction of a livestock water rate that reflects the water requirements of livestock as opposed to humans.	Under the Government’s Water Pricing Policy Framework, all non-domestic consumers of water are to be charged by local authorities for the supply of water. The policy ensures that non domestic consumers benefit from a fair and equitable system of charging. They are only charged for metered water use. The cost of supplying water to the consumer is the same regardless of the end-use.

### 3.3.8 Development pressure

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009  Sh_SWMI_008  Sh_SWMI_005	Development and planning is the most serious threat to water quality and lack of integration of planning is core to this.  Note the lack of coherent town planning.  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.	Strategic Environmental Assessment (SEA) is required under the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI 436 of 2004) in the case of Regional Planning Guidelines, County Development Plans, and Local Area Plans. The 2004 Regulations give effect to the SEA Directive in the land-use planning sector. SEA is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt the plan or programme.. The assessment must take into account the impact that the development plan will have on the wider environment, including water. General guidance on the relationship between land use and spatial planning and river basin planning was published in recent guidelines from the Department of Environment, Heritage and Local Government. Further guidance to planning authorities on this issue will be prepared by DEHLG.  Development Management Guidelines have been drafted by the Department of Environment, Heritage and Local Government (DEHLG) and are available from: <a href="http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,14467,en.pdf">http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,14467,en.pdf</a>
Sh_SWMI_017	Preservation of flood plains via planning restrictions.	One of the objectives of the Water Framework Directive is to contribute to mitigating the effects of floods and droughts and this objective will have to be integrated into planning policy through the relevant land use plans
Sh_SWMI_018	Urban planning needs to look at the holistic impact of development / housing – to build sustainable development that has minimal impact on natural resources – i.e. water. Housing should be built with collection tanks for our rainwater, improved sewerage treatment plants. Insufficient pre – development planning of houses and infrastructure in relation to consequent effluent management and the impacts of developments on flood control systems.	Following the making of the River Basin Management Plan by Local Authorities in 2009 County Development Plans, Regional Development Plans and Local Area Plans will have to 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.

Sh_SWMI_015	The County Council need to utilise qualified personnel to scope impacts of developments at an early stage to assess impacts on water and biodiversity.	In recent years many local authorities have broadened the range of professional staff employed by them, in particular in the environmental and natural heritage area, such as biologists, agricultural scientists, heritage and biodiversity officers. However, this is not the case in all local authorities.
Sh_SWMI_028	Granting of planning permission to Roadstone for development of a quarry on c.68 ha of lands at Cam, Brideswell, Athlone, despite objections from 51 landowners. Roadstone intend to discharge 2.6 ML/day into the Ballyglass river, a tributary of the R. Suck. Adequate dialogue with landowners in advance of granting of planning permission would have been helped to alleviate concerns about additional flooding of lands.	This quarry was granted permission by Roscommon County Council and subsequently upheld by An Bord Pleanala in September 2006. The application had to go through an Environmental Impact Assessment which looked in detail at its possible impact on the Ballyglass River. ABP concluded that issues relating to water protection can be addressed through monitoring, the submission of additional information and proper on-site controls and granted permission subject to a number of conditions, including the strengthening of the river bank at specific locations to prevent exacerbation of flooding.
Sh_SWMI_030	How are large scale developments assessed under the Foreshore Licensing application system? This process does not appear transparent. What effects do these large developments have on the tidal river, the local environment, and natural habitats?	Major developments along the foreshore are covered by the Strategic Infrastructure Act and are assessed by An Bord Pleanala. All such developments would be subjected to appropriate environmental impact assessments to determine their possible impact on the environment.
Sh_SWMI_030	The comments made during the public meetings regarding planning permissions being pushed through by local councillors was objected to. Where there is a justified reason for planning in an area e.g. a young couple who want to contribute to the local area, then the councillor is obliged to help all they can. This is helping to sustain family life in local communities, and also helping to retain local people in their birth places.	All development must be sustainable and in accordance with relevant developments plans.

### 3.3.9 Monitoring/Resources

Submission Reference No.	Issues Identified	Response
Sh_SWMI_002 Sh_SWMI_003 Sh_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.
Sh_SWMI_011	Implementation of existing standards and regulations inadequate. Failure of government to match the allocated financial resources to the magnitude of the task	To date funding has been provided to local authorities and the Environment Protection Agency to implement various water related regulations. The authorities are continually reviewing the resource requirements needed to perform their functions.

Sh_SWMI_011	<p>L. Derg has persistent high levels of filamentous algae (cladophora) and planktonic blue green algae (cyanophyta). The factors and conditions that enhance their growth are not fully understood, yet neither group is a specific focus of WFD monitoring.</p> <p>A major exclusion from the document is recognition of the need for research in a changing environment, in particular in relation to climate change and alien species colonization. Need to reliably identify baseline conditions, otherwise monitoring will be haphazard and compromise conclusions regarding compliance with WFD. Monitoring is not a replacement for research. Research is needed to inform monitoring. RBDs must have research budgets designed to yield substantive advances in knowledge for monitoring and management purposes.</p>	<p>Seasonal and annual variations in temperature and wind strongly influence the growth patterns of blue-green algae. The main growth period of blue-green algae is July to early September and surface scums on the lake shores reflect wind conditions rather than the density of the species in the main body of the lake. Monitoring is carried out by both Clare and North Tipperary County Councils and also the Environmental Protection Agency. Clare Co Council's monitoring of blue-green algae is closely related to management of the two Blue Flag beaches on Lough Derg at Ballycuggeran and Mountshannon.</p> <p>It should be noted that the WFD monitoring programme is not a research programme; however nutrient enrichment is a factor in enhancing algal growth and is covered under the parameters measured for the WFD. Specific studies have been undertaken nationally across a range of areas to establish better baseline information, which was found to be lacking at the time of the Article V Characterisation report. The Environmental Protection Agency commissions environmental research projects via the STRIVE programme to address research priorities and knowledge gaps.</p>
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Sh_SWMI_029	<p>Better monitoring of discharges of effluents into the Shannon.  State Bodies:  ESB Thermal pollution at Shannonbridge.</p> <p>Farmers: Slurry tanks &amp; outlet pipes to inspect ongoing, no breaches of rules applying to the spreading of slurry.  Closer inspection of pig farms,</p>	<p>All discharges are monitored either by local authorities or the EPA under the Water Pollution Acts, Integrated Pollution Prevention Control Regulations and the recently enacted Wastewater Discharge (Authorisation) Regulations.</p> <p>All discharges to the river from West Offaly Power Station at Shannonbridge are explicitly permitted under the terms of the station's IPPC licence. Their environmental impact/significance was considered in the EIS for the ESB's application for Planning Permission for the station and in the determination of the IPPC licence by EPA. These discharges all have monitoring requirements associated with them. In relation to the cooling water discharge this includes continuous monitoring of flow and temperature. Details of this monitoring are reported to EPA quarterly. An annual summary report (AER) is also made. All such data is available to the public upon request to EPA Castlebar or to ESB at West Offaly Power. It is expected that EPA will make such data available via Web access in the future. In addition, the auditors for the station's Environmental Management System conduct twice yearly audits of the station's operations including licence compliance issues such as monitoring and reporting. The station has performed well in all such audits since its commissioning. As the requirements for monitoring of the cooling water discharge under the station's IPPC licence are comprehensive and demanding, ESB does not consider that additional monitoring of these discharges is currently required.</p> <p>Local authorities carry out farm surveys, focused on particular areas where water quality has been identified as being at high risk or as a result of pollution incidents/complaints. These inspections include assessing slurry tanks and other farm waste collection structures, all farm wastes generated, storage capacities, condition of storage facilities, disposal of farm wastes and when carried out, adequacy of spreadlands and general farm management. When the LA receive complaints concerning the spreading of slurry and farm wastes, these are inspected with respect to Water Pollution legislation and the Good Agricultural Practice Regulations and where necessary, action is taken where breaches of legislation are identified. Pig farms, if above a certain size, operate under the IPPC licensing system regulated by the EPA and if below the threshold for IPPC licensing, are subjected to the Good Agricultural Practice Regulations.</p>
Sh_SWMI_018	<p>Regular inspection of all rivers &amp; streams flowing into Lough Derg.  Better resources and implementation of existing plans.  Urgent requirement for removal of staff embargo to enforce and implement controls.</p>	<p>Local authorities and the Shannon Regional Fisheries Board carry out regular inspection of the rivers flowing into L. Derg. A Monitoring Programme has been in place over the past number of years whereby rivers entering Lough Derg are surveyed as regards water quality.</p>

Sh_SWMI_030	Many large oil spills are taking place (along the border counties in particular) and the clean up for these incidents is a huge cost to the LAs. These are occurring from the tankers which transport oil across the border. Legislation is required in this area as it is not only a cost issue but a huge environmental issue.	Unauthorised transport of fuel across the border is a problem which is being tackled jointly by local authority Waste Enforcement officers and the Gardai.
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### 3.3.10 Public participation / education / awareness

<b>Submission Reference No.</b>	<b>Issues Identified</b>	<b>Response</b>
Sh_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.	Public participation has been a significant part of the implementation of the Water Framework Directive in the Shannon International River Basin District. 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. The Shannon IRBD Advisory Council is providing valuable guidance during the preparation of the River Basin Management Plan. 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. Two series of public meetings, totaling eighteen meetings, have been held to date, while a further series of public meetings will be held for consultation on the draft RBMP. Also RBD and local authority staff regularly give presentations and participate in events organized by NGOs and other agencies.
Sh_SWMI_009	No connection is made between the general public and members of the Advisory Councils in the reports. Names of members and contact details should be clearly presented in reports. There is no transparency or public awareness of what the Advisory Councils do.	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 expertise.”

Sh_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.	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 the Shannon IRBD Advisory Council 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.
Sh_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.	The Shannon IRBD Advisory Council requested cross-border participation at its meetings and this was relayed to the relevant authorities in Northern Ireland. A representative of the Environment and Heritage Service in Northern Ireland (EHS) attends meetings in an observer capacity, while the invite to attend meetings was also extended to the Northern Ireland National Stakeholder Forum. 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. The North Western and Neagh Bann IRBD Advisory Councils requested cross-border participation from the relevant authorities in Northern Ireland. A representative of the Northern Ireland Environment Agency is a corresponding member for the two Advisory Councils and the Public Authorities Forum.
Sh_SWMI_009	Advertising needs to be done extensively and effectively in the relevant local areas before WFD public participation meetings.	Two series of public meetings have been held in the past three years across the Shannon IRBD. In each case several methods of attracting members of the public to the meetings were used including direct mail, media advertisement, interviews on radio and articles in newspapers. None the less, attendances have been relatively low. The cost versus the benefit of public meetings as a means of raising public awareness is being examined.
Sh_SWMI_002 Sh_SWMI_009	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.	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.
Sh_SWMI_002 Sh_SWMI_032	Local activism should be fostered and there should be reference to community engagement in catchment management initiatives. Issues need more debate/awareness at local level.	Support for local groups can be best provided by local authorities though their environmental awareness officers.

<p>Sh_SWMI_003 Sh_SWMI_009</p>	<p>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>	<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>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>
<p>Sh_SWMI_016</p>	<p>Lack of Education. National media education initiative National thorough education programme will</p> <ol style="list-style-type: none"> <li>1. give people the tools to identify pollution themselves</li> <li>2. educate enough to find it totally unacceptable</li> <li>3. polluter pays and fines increase with education as everyone over time find water pollution more unacceptable</li> </ol>	<p>It is recognized that awareness raising and education initiatives across all the various sectoral pressures acting on water is crucial. There are significant fines and penalties for pollution in existing legislation.</p>
<p>Sh_SWMI_030</p>	<p>There is a responsibility of the agencies carrying out work under the WFD to educate the public of water usage and conservation.</p> <p>Awareness and labelling campaigns would be important especially to highlight the effect of household products on septic tanks – the current phosphate free detergent agreement applies only to households. Why not extend it to industry?</p> <p>Signage programmes should be undertaken so that people begin to relate to the water system where they live and realise the connection from the land to the rivers and lakes</p> <p>Education is of prime importance and should begin at second level in school in order to inform students about water issues. It was also commented that the public need to start being more responsible.</p>	<p>Many local authorities have water conservation projects in operation which include raising awareness of water conservation.</p> <p>This will be taken into consideration in the development of a public awareness strategy.</p>

Sh_SWMI_015	Need to educate householders and farmers i.e. how many farmers are aware of the web of life within streams and rivers, or householders of where the chemicals may end up	This will be taken into consideration in the development of a public awareness strategy.
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### 3.3.11 General comments on the ‘*Water Matters – Have Your Say!*’ reports

Submission Reference No.	Issues Identified	Response
Sh_SWMI_009 Sh_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 purpose of the Water Matters report was to raise awareness and provide an early overview to the general public of the main water issues to be addressed in the River Basin Management Plan. It was never intended to set out concrete actions to address these issues, which will be the main purpose of the draft River Basin Management Plan. This will include a programme of measures to address specific water management issues in the RBD. 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 ‘ <i>Water Matters</i> ’. 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.
Sh_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.	‘ <i>Water Matters</i> ’ referred to improvements which had been noted by the EPA in the ‘ <i>Water Quality in Ireland 2006 – Key Indicators of the Aquatic Environment</i> ’ report. See <a href="http://www.epa.ie/downloads/pubs/water/indicators/name.23540.en.html">http://www.epa.ie/downloads/pubs/water/indicators/name.23540.en.html</a> for the full report. With regard to historical failures the emphasis was put on achieving the new water quality standards rather than looking back.
Sh_SWMI_003 Sh_SWMI_009	Noted that a number of the references to background documents within the Water Matters reports were difficult to find on the RBD websites.	The Shannon IRBD website has been up-dated and it is now be possible to access the documents referred to in ‘ <i>Water Matters</i> ’.
Sh_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 <a href="http://maps.epa.ie">http://maps.epa.ie</a> .

## 4.0 What happens next?

The local authorities responsible for implementation of the Water Framework Directive in the North Western and Neagh Bann International River Basin Districts 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, for example aquaculture will now be addressed as a topic in its own right.

Draft River Basin Management Plans will be published for public consultation by 22<sup>nd</sup> December 2008. The consultation will run for a six month period until 22<sup>nd</sup> 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.

## 5.0 Contacts

### County Councils

Cavan County Council <http://www.cavancoco.ie/>  
Clare County Council <http://www.clarecoco.ie/>  
Cork County Council <http://www.corkcoco.ie/>  
Galway County Council <http://www.galway.ie/>  
Kerry County Council <http://www.kerrycoco.ie/>  
Laois County Council <http://www.laois.ie/>  
Leitrim County Council <http://www.leitrimcoco.ie/>  
Limerick City Council <http://www.limerick.ie/>  
Limerick County Council <http://www.lcc.ie/>  
Longford County Council <http://www.longfordcoco.ie/>  
Mayo County Council <http://www.mayococo.ie/>  
Meath County Council <http://www.meath.ie/>  
North Tipperary County Council <http://www.northtippcoco.ie/>  
Offaly County Council <http://www.offaly.ie/>  
Roscommon County Council <http://www.roscommoncoco.ie/>  
Sligo County Council <http://www.sligococo.ie/>  
South Tipperary County Council <http://southtippcoco.ie/>  
Westmeath County Council <http://westmeathcoco.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](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](http://www.sei.ie)  
National Federation of Group Water Schemes <http://www.nfgws.ie/>

**Departments - Northern Ireland**

Department of the Environment <http://www.doeni.gov.uk/>  
Northern Ireland Environment Agency (Formerly Environment and Heritage Service) <http://www.ni-environment.gov.uk>  
Department of Agriculture and Rural Development <http://www.dardni.gov.uk/>

## **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 Shannon district?
- Q2.** What is your view of these suggested themes? Have we missed something that would be helpful within the Shannon district?
- Q3.** What is your view about the suggested actions to control problems related to wastewater and industrial discharge within the Shannon 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 Shannon 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 Shannon 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 Shannon 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 Shannon 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 Shannon 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 Shannon 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 Shannon district? Are these actions appropriate? Have we missed something important?
- Q11.** What is your view on alien species problems within the Shannon district?
- Q12.** What is your view about the suggested actions to address sensitive area problems within the Shannon district?
- Q13.** What do you think about cruising and boating problems within the Shannon District?
- Q14.** What do you think about the suggested approach to address peat extraction problems within the Shannon District?
- Q15.** What is your view about the suggested actions to address the shared water issues within the Shannon district?

## APPENDIX 2

### Source of submissions to the Shannon IRBD “Water Matters” report

<b>Name</b>	<b>Organisation</b>	<b>ShIRBD Ref</b>
Nigel Russell	Waterways Ireland	Sh SWMI 001
Elizaabeth Cullen	Irish Doctors Environmental Association	Sh SWMI 002
Joanne Pender	Irish Wildlife Trust	Sh SWMI 003
Mary Stack	Fáilte Ireland	Sh SWMI 004
William Symth	Irish Concrete Federation	Sh SWMI 005
Siobhan Egan	Bird Watch Ireland	Sh SWMI 006
Nathy Gilligan	Office of Public Works	Sh SWMI 007
Thomas Ryan	Irish Farmers Association	Sh SWMI 008
Sinead O’Brien	SWAN	Sh SWMI 009
Damian Allen	Department of Agriculture Fisheries and Food	Sh SWMI 010
Dan Minchin	Lough Derg Science Group	Sh SWMI 011
Benedict Athure		Sh SWMI 012
Michael Murray		Sh SWMI 013
Patrick Larkin		Sh SWMI 014
Sean O Farrell		Sh SWMI 015
Unknown		Sh SWMI 016
Unknown		Sh SWMI 017
Nuala Cullen		Sh SWMI 018
John Farrell		Sh SWMI 019
David Johnston		Sh SWMI 020
David Johnston		Sh SWMI 021
Fintan Cooney		Sh SWMI 022
Malcom J Martin		Sh SWMI 023
James Moran		Sh SWMI 024
Philip Comber		Sh SWMI 025
Del Harding	Slabs and Beams	Sh SWMI 026
Dan Looney	Westfields Wetlands Committee	Sh SWMI 027
Tomas Cooney		Sh SWMI 028
Barney O Reilly		Sh SWMI 029
	ShIRBD Advisory Council	Sh SWMI 030
John Connors	Ennis & District Anglers Association	Sh SWMI 031
John Flynn		Sh SWMI 032