

River Basin Management Plans 2015 - 2021

# Screening Report on the Determination of the need for a Strategic Environmental Assessment (SEA) for the River Basin Plans

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Northern Ireland  
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## **Background**

The Water Framework Directive (WFD) was established in law in Northern Ireland on 22 December 2003 through the Water Environment (WFD) Regulations (Northern Ireland) 2003 (SR 2003 No. 544). These regulations identified the Department of the Environment as the competent authority for each river basin district within Northern Ireland. The Department of the Environment is required to coordinate the implementation of the Directive. Northern Ireland Environment Agency (NIEA), an agency within the Department, is the lead body on the technical work required for implementation of the WFD. Delivery of the WFD rests with the Department of the Environment, in partnership with the Department of Agriculture and Rural Development, the Department of Culture, Arts and Leisure and the Department for Regional Development.

An Inter-departmental Board has been established to oversee and coordinate strategic implementation of the Directive. The Board has established an Implementation Working Group to coordinate the activities of government departments and agencies that will be delivering the requirements of the Directive.

WFD is implemented through River Basin Planning which introduces a six-yearly cycle of planning, action and review. Every six years a River Basin Management Plan will be produced for each River Basin District within Northern Ireland.

The first planning cycle covers the period from December 2009 - December 2015, with the second continuing from December 2015 - December 2021.

## **Information about the Plans**

### Background

In December 2009, the Department of Environment (the Department) published three River Basin Management Plans as required by the Water Framework Directive (WFD). The Plans are being delivered by the Northern Ireland Environment Agency (NIEA) in conjunction with a number of Northern Ireland Executive Departments: the Department of Environment (DOE); the Department of Agriculture and Rural Development (DARD); the Department of Culture, Arts and Leisure (DCAL); and the Department for Regional Development (DRD).

The Plans identify where our water environment is in a good or excellent condition and set out objectives for the improvement or the prevention of deterioration of individual river, lake, marine and groundwaters for the next three river basin planning cycles to 2015, 2021 and 2027. Programmes of Measures were published as part of the Plans setting out actions required to meet the objectives to improve the status of all water bodies. An interim update on the measures was published in 2012.

As a precursor to this draft update, DOE undertook a consultation on Significant Water Management Issues (SWMI) for the North Eastern, North Western and Neagh Bann RBDs in December 2013. The synopsis of responses received to that

consultation is available on the website and has been fully considered for the 2014 update.

The WFD requires that the Plan is reviewed and updated every 6 years.

The first Plans in 2009 were designed to be rolling plans that evolve over time. The second cycle plans are modifications and changes made to the first set developed in 2009. The draft updated Plans outline changes that have taken place during the first cycle and what is proposed for the second cycle.

A strategic environmental assessment under the Strategic Environmental Assessment (SEA) Directive was conducted for the first set of plans in 2009. This identified and assessed the wider environmental impacts of the plans and programmes.

Draft updates to the River Basin Management Plans have now been published and they outline the proposed changes and the modifications to measures for the second river basin planning cycle 2015-2021.

#### Plan Names

- Draft North Eastern River Basin Management Plan (December 2014);
- Draft North Western River Basin Management Plan (December 2014); and
- Draft Neagh Bann River Basin Management Plan (December 2014).

#### **Screening Information and SEA Determination**

An SEA screening process has been undertaken and focuses solely on the modifications contained in the Programme of Measures for each of the 3 Plans, named above.

The screening process was conducted in accordance with The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004.

Regulation 6(b) states that an environmental assessment need not be carried out for a minor modification to a plan or programme..... unless it has been determined under

regulation 9(1) that the plan, programme or modification, as the case may be, is likely to have significant environmental effects.

Regulation 9 addresses the requirements for determining whether a particular plan, programme or modification is likely to have significant environmental effects.

Regulation 9(2) states that the responsible authority shall apply the criteria specified in Schedule 1 to the plan, programme or modification under consideration, and shall prepare a report on whether the authority considers that the plan or programme, or as the case may be, the modification, is likely to have significant environmental effects.

Schedule 1 sets out the criteria for determining the likely significance of effects on the environment based on the characteristics of the plans and programmes, having regard, in particular to the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources; the degree to which the plan or programme influences other plans and programmes including those in a hierarchy; the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development; environmental problems relevant to the plan or programme; and the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste management or water protection).

Where significant effects on the environment have been identified, the characteristics of the effects and of the area likely to be affected must also be assessed, having regard, in particular, to the probability, duration, frequency and reversibility of the effects; the cumulative nature of the effects; the transboundary nature of the effects; the risks to human health or the environment (e.g. due to accidents); the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected); the value and vulnerability of the area likely to be affected due to (i) special natural characteristics or cultural heritage; (ii) exceeded environmental quality standards or limit values; or (iii) intensive land-use; and the effects on areas or landscapes which have a recognised national, Community or international protection status.

Table 1 sets out the assessment of the plans based on the criteria for determining the likely significance of effects on the environment based on the characteristics of the plans, as set out in Schedule 1 of the Regulations. As the results of the assessment, as set out in Table 1, indicated that the modifications set out in the draft plans would not have significant environmental effects, no further assessment of the characteristics of particular effects is required under Schedule 1(2), of the Regulations, as no effects, suitable for assessment under Strategic Environmental Assessment, have been identified in Table 2.

The plans have been subject to a 'test of likely significance' as part of the screening procedure under Article 6 of the Habitats Directive. From the consideration of all the potential effects it has been objectively concluded that the plans are not likely to give rise to any significant effects on Natura 2000/Ramsar sites and no further assessment under Article 6 is required. A separate report on this issue has been completed.

### **Conclusion of screening process – Statement of Determination**

Based on this screening report and the accompanying tables in Annex 1 and 2, the Department of the Environment considers that the draft 2014 River Basin Management Plans do not require strategic environmental assessment because the draft plans constitute minor modifications to existing plans and the modifications are not likely to have significant environmental effects.

**Table 1**

Criteria for determining the likely significance of effects on the environment	Any interaction of minor modifications with determining criterion? (Yes/No)	Likely to have significant environmental effects? (Yes/No/Not applicable)	Summary of significant environmental effects (Supporting / explanatory information)
<b>Characteristics of the proposed modifications contained within the draft 2015-21 River Basin Management Plans.</b>			
(a)The degree to which the minor modifications sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.	No	Not Applicable	<p>Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will not set a framework for projects or activities in so far as the outcome of such reviews is not yet known and a potential outcome from such reviews is that no change, or minor changes, in existing legislation would be required. Significant changes would be subject to a focused environmental assessment process once detailed changes or options were produced. At the SEA level the details of such changes, if any, is, as previously stated, not yet known in relation to their locations, nature, size or impact upon operating conditions or the potential resultant impact upon the allocation of resources. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.</p> <p>While a number of the modifications in the plans refer to other Strategy documents, action plans, schemes or programmes the minor modifications contained within the draft 2015-21 River Basin Management Plans could not be considered to be a significant influence upon those plans, or any plans that may be derived from them in the future, over and above the statutory requirement for those plans etc to comply with EC legislation and in particular the Water Framework Directive. In addition, while a number of the measures identify</p>

			<p>funding options and opportunities for the implementation of the overarching measures, the measures and their modifications themselves do not result in the allocation of financial resources. Therefore in summary it can be determined that the modifications in the draft 2015-21 River Basin Management Plans do not set a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.</p>
<p>(b)The degree to which the modifications influence other plans, including those in a hierarchy.</p>	Yes	No	<p>Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 Strategic Environmental Assessment they should be subject to the requisite assessment in due course.</p> <p>While a number of the modifications in the plans refer to other Strategy documents, action plans, schemes or programmes the minor modifications contained within the draft 2015-21 River Basin Management Plan modifications could not be considered to be a significant influence upon those plans, or any plans that may be derived from them in the future, over and above the statutory requirement for those plans etc to comply with EC legislation and in particular the Water Framework Directive and the 2009 River Basin Management Plans which were the subject of a full Strategic Environmental Assessment.</p>
<p>(c)The relevance of the modifications for the integration of environmental considerations, in particular with a view to promoting sustainable development.</p>	Yes	No	<p>Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport</p>



			<p>or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such modifications generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.</p> <p>A number of the modifications will assist greatly with the integration of environmental considerations in organisations and groups providing a focus on catchment based river basin planning in the activities and actions of organisations such as local Councils, community groups etc.</p> <p>Modifications to measures related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These modifications are concerned with information gathering rather than the taking of any concrete actions and as such would not be considered to have the potential to have significant environmental effects.</p> <p>The modifications to measures proposed as part of the draft 2015-21 River Basin Management Plans will make valuable contributions to the integration of environmental considerations and sustainable development within the context of the measures assessed in the 2009 SEA Environmental Report. While the 2009 measures and the draft 2015-21 modifications in combination will potentially have a significant environmental effect, the modifications taken in isolation would not be regarded as having the potential to have a significant environmental effect.</p>
(d)Environmental problems relevant to the modifications.	Yes	No	<p>The aim of the modifications to measures contained within the draft 2015-21 River Basin Management Plans is to enhance a number of measures already in place as part of the 2009 River Basin Management Plans. The key themes of the modifications contained within the 2015-21 River Basin Management Plans relate to partnership working, education and awareness, the review of legislative powers, evidence gathering, monitoring, research and modifications which relate to the implementation of actions detailed in other Strategy</p>

			documents, action plans, schemes or programmes. The aim of the measures and their modifications is to have a positive impact upon the environment, specifically the water environment. The modifications taken in isolation will have a minor positive impact or a neutral impact upon the environment. A full assessment of each modification is carried out in Table 2.
(e)The relevance of the modifications for the implementation of EC legislation on the environment (e.g. plans linked to waste management or water protection)	Yes	No	As the draft 2015-21 River Basin Management Plans modify the measures contained within the 2009 River Basin Management Plans which are statutory documents produced as a requirement of the Water Framework Directive, the minor modifications are directly relevant to the implementation of European Community legislation on the environment, specifically related to water protection. However the detailed assessment of each of the modifications, see Table 2, identified that the modifications would not have a significant environmental effect taken in isolation. However the overall measures and their modifications would be expected to have a significant effect upon water quality and that these effects, where appropriate, were the subject of strategic environmental assessment in 2009 as part of the production of the 2009 River Basin Management Plans.



**Table 2**

What is the modification?			Strategic Environmental Assessment (SEA) Screening Assessment
Improvement Required	Actions	Delivery mechanism	
<b>Protection of rivers</b>	Support established river trusts through specific projects	Established NI Rivers Trusts  Rivers Trust Action Plans  Community Engagement	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Reduction impacts from waste disposal</b>	Work with Local Councils and wider stakeholders to increase awareness and support actions to address litter in the water environment	Partnership working	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Restoration of rivers and lakes</b>	Develop and implement a programme of catchment scale pilot projects to protect and improve water quality and quantity	INTERREG V and other funding sources	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Protection of lakes and control of diffuse and point sources of pollution</b>	Develop management measures for lakes based on the outcomes from the DOLMANT project	Set up an inter-agency Lakes Restoration working group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Reduction in pollution</b>	Consider options for civil sanctions, such as on the spot fines, as part of the regulatory reform programme for environmental regulation	DOE Regulatory Reform programme	Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may

			result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
	Develop and agree five prosperity agreements with local industry/ business	Partnership working with businesses and interest groups	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Reduction in pollution</b>	Develop modelling tools to help understand the natural dynamics and science of the catchments. This may include further development of the SCIMAP tool which examines diffuse pressures, determines flow pathways and flood risk areas within catchments so that measures can be targeted to manage problem areas	Identification of agricultural and general diffuse critical risk areas using GIS and linking with hydrological significant pathways using SciMAP.	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Details of pollution incidents to be made available on the NIEA website	NIEA Website	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Reduction in pollution and flood risk</b>	Consider increased utilisation of flood plain storage as part of FRMPs, whilst considering synergies with WFD	Partnership working on local projects and schemes	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Education and Awareness</b>	Continue to work together to improve understanding of the wider public of the value and wider benefits of the water environment	Partnership working and Catchment Stakeholder Groups	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Increase awareness of the role of	Working with	Modifications related to education and

	groundwater in the management of the aquatic environment as part of catchment wide projects	others such as GSNI, Universities, new Councils, local stakeholder groups	awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Reduction in discharges/ impacts from waste disposal</b>	Review success of pilots with local councils to address fly tipping, including hazardous and fuel laundering waste	Partnerships between NIEA and Local Councils	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Restoration of rivers and lakes</b>	Development of an inter-departmental group to look at synergy between Directives, so that measures proposed have a synergistic effect and at least do not disbenefit any	The interagency River Restoration and Continuity group meets three times a year. There are representatives from NIEA WMU, Rivers Agency, Natural Heritage, DCAL, AFBI and DARD. Between them these Agencies cover WFD, Nitrates, UWWTD, Floods and Habitats Directive.	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Restoration of all waters</b>	Consider alternative funding opportunities, for example, the INTERREG V programme, to deliver sustainable solutions that take account of economic and social needs as well as environmental objectives for various European Directives.	NIEA external funding group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Protection of rivers and lakes</b>	Align, as far as possible, the objectives and standards for the Water Framework Directive and Natura 2000 Protected Areas	Joint WMU and NED working group in place to take forward working approach to be trialled during finalisation of second cycle plans	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
<b>Protection of freshwater pearl</b>	Consider the findings of Interreg IVA Freshwater Pearl Mussel project and	Partnership working between	Modifications to measures which require partnership working are intangible in nature

<b>mussel sites in NI</b>	implement appropriate measures in designated FWPM sites	Government and NGOs	and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Prevent establishment of species not native to NI</b>	Consider legislative means to ban the sale of a range of aquatic species	EU Legislation- Wildlife (NI) Order 1985.	Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Control of invasive alien species</b>	Consider research, in conjunction with DARD, to improve understanding of the effects of alien species in the aquatic environment	Invasive Species Ireland Project (subject to funding)	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Control of invasive alien species</b>	Continue to implement the actions set out in the Invasive Alien Species Strategy for Northern Ireland	Invasive Alien Species Strategy partners	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Develop process for assessing significant impact of species as listed in Ecoregion 17 lists for WFD classification	UKTAG Aliens Species Group and Ecoregion 17 Group on Alien Species	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an

			implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Develop new individual Species Action Plans as required	Invasive Alien Species Strategy partners	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Education and awareness</b>	Improve education re fish introductions and need for Section 14 authorisation for stocking and moving fish	Implementation of current controls	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Continue partnership approach between professionals and volunteers for invasive alien species monitoring to improve understanding of current distributions and spread	Invasive Species Ireland Project, NGO projects and Challenge Fund	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Improve flows in rivers and levels in lakes</b>	DRD Water Policy to prepare a Long-Term Water Strategy for Northern Ireland	Publish Long-Term Water Strategy for Northern Ireland	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Northern Ireland Water to prepare a Water Resource and Supply Resilience Plan by 2017	NIW Water Resource and Supply Resilience Plan	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Implement a programme of water resource assessments and multi-disciplinary studies to provide evidence to inform abstraction and impoundment licence reviews	Programme of investigations	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment



			<p>begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.</p>
	Increase awareness of importance of water efficiency and saving	Joint stakeholder events and meetings	<p>Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.</p>
	Use burst water mains records to identify 'hotspots' and use to prioritise mains replacement to help reduce wastage in water supply	PC15 programme of Water Mains Rehabilitation	<p>Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.</p>
	Implement catchment level assessments to inform NIW AIL licence reviews and monitoring requirements.	Project initiated in March 2014.	<p>Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.</p>
	Consider whether licences can be issued as annual licences rather than the daily maximum volumes. This would reduce requirements for licence increase in some areas.	Electronic transfer of data	<p>Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.</p>
	Use return of volume and level data to determine actual use of groundwater resources	Electronic transfer of data	<p>Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with</p>

			information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Develop and implement Natural water retention measures and sustainable flood management options including role of bogs and wetlands.	UK and Ireland Working Group set up to consider outworkings of EU group on Floods/Diffuse Pollution/nature conservation	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Protect drinking water sources and provide safe drinking water</b>	Provide details of private drinking water supplies >10 cubic meters to inform WMU and GW designation and monitoring of DWPAs	Through establishing a biannual information return	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	NIEA teams to have a reciprocal arrangement for transferring information to DWI on risks which could affect private water supplies either through monitoring programme or pollution incidents	Electronic transfer of data	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Protection of fisheries and allow fish migration</b>	Draft a guidance document for small scale hydro power scheme applicants to include advice on fish/lamprey passage	Hydro power scheme interdepartmental working group	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Co-ordination between DCAL and NIEA on the regulation of hydro power schemes, including pilot studies to examine the impact of hydro power schemes on fish stocks	Hydro power scheme interdepartmental working group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Clarify roles and responsibilities around fisheries and Abstraction and Impoundment Licensing legislation and enforcement	Hydro power scheme interdepartmental working group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Adopt a consistent UK methodology for assessing the passability of obstacles to fish	AIL Licensing process	Modifications related to evidence gathering, monitoring, research and identification of

	migration and use the protocol at abstraction points to inform licence conditions and to inform the decision making process on weir design.		source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Integration of fuller ecological considerations into hydro power scheme licensing	Ongoing research and networking and capturing best practice from the other fishery bodies and regulators within the UK. DCAL are initiating an inspection programme of fish screens and fish passes for both the adult and smolt runs	Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in pollution</b>	Improved collection, coordination and analysis of data in and around waste and the waste system	Waste data flow project and LIFE SMART Waste Project	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Legacy landfills and contaminated land – advise stakeholders (Councils, planners, landowners) on the risk management of contaminated sites	Provision of advice to planners and landowners	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Develop partnership process with Local Councils to support their effective management of significant waste contracts	Development of Stakeholder engagement structure	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.

	Develop a NI Groundwater Protection Strategy	Working with UK/ROI counterparts, GSNI Research community	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Develop process for joint Waste/Water authorisations to include regulation DOE Regulatory Reform programme	DOE Regulatory Reform programme	Modifications to measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
	Develop a compliance assessment process for Waste Authorisations	Measurement of compliance	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in pollution and flood risk</b>	Develop a prioritisation list of misconnections	NIEA/NIW to review relevant information	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of

			any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Increase awareness of WFD requirements and stormwater management within local planning processes, underpinned by Strategic Planning Policy Statement	Capacity building within DOE Planning and the 11 new Council's Planning Departments	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Control of diffuse and point sources of pollution</b>	Co-ordinate Bathing Waters pollution reduction programmes with the misconnections prioritised list to minimise bathing water failures as a result of polluted storm water systems entering local rivers	Source apportionment studies	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Draft a policy paper on Polluted Surface Water Outfalls, including responsibilities for dealing with misconnections	Negotiations as part of PC15 spending round	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans, policies etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Reduction in pollution</b>	Continue with Environmental Liaison Groups as part of Roads Service consultation process for each major road scheme	Environmental liaison group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Prevent further loss and degradation of urban river habitat</b>	To provide guidance and information to help communities protect and enhance local streams and rivers in their urban environment	Inter-agency River Restoration and Continuity Group to work with existing rivers trusts, communities and angling clubs	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Restoration of</b>	Consider the inclusion of new woodlands,	Partnership working	Modifications to measures which require

<b>rivers and lakes</b>	wet woodlands and floodplain forests as part of catchment wide pilot projects to protect and improve water quality and quantity	with stakeholders, NGOs and other Government Agencies	partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Promote the environmental and water protection benefits of woodland</b>	Forest Service to provide woodland management advice and promote wider expansion of afforestation taking account of forestry best practice and sustainable forest management standards	Approval processes compliant with UK Forestry Standard	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Minimise risks of forests in acid sensitive catchments</b>	Implement measures in the Forestry Commission Practice Guide 'Managing Forests in Acid Sensitive Water Catchments'	Approval processes compliant with UK Forestry Standard	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Protection of Freshwater Pearl Mussel sites</b>	Implement measures developed through the INTERREG IVA funded project (Practical Implementation of Freshwater Pearl Mussel Measures) to minimise the impact of forests on fresh water pearl mussels	Approval processes compliant with UK Forestry Standard	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.

<b>Reduction in nutrient inputs &amp; Reduction in organic waste (organic matter, faecal pathogens, &amp; ammonia)</b>	Measures to address the impact of pollution arising from farmyards, including farmyard audits and farmyard management practice with particular focus of farmyard drainage systems	Farm Inspections	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
	Develop modelling tools to help understand the natural dynamics and science of the catchments, including groundwater. This may include further development of the SCIMAP tool which examines diffuse pressures, determines flow pathways and flood risk areas within catchments so that measures can be targeted to manage problem areas	Identification of agricultural and general diffuse critical risk areas using GIS and linking with hydrological significant pathways using SciMAP	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Reduction in nutrients</b>	Measures to address nutrients including review of Nitrates Action Programme (NAP) and Rural Development programme (RDP); Provision of training in Nutrient Management Planning; Provision of online farm nutrient calculators and the facilitation of soil sampling and analysis	NAP 2015-2018 to be agreed with European Commission. CAFRE Training Programme. DARD online Services. Proposed Land Management Programme (LMP) under NI RDP	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in pollution from sediment</b>	The Environmental Farming Scheme (EFS) will include measures for riverbank fencing, riparian buffers and pasture pumps. These measures will help to address sediment input to rivers caused by livestock poaching and bank erosion by livestock	Proposed EFS under the NI RDP	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to

			have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Reduction in pollution from agricultural land</b>	Consider measures within Woodland and Environmental Farming schemes as part of Rural Development Programme such as riparian woodland	Review of RDP currently underway with European Commission	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Education and Awareness</b>	Use the Water Catchment Partnership approach to work proactively together to promote and raise awareness of best practice when using pesticides on the farm.	Water Catchment Partnership	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Protection of Freshwater Pearl Mussel sites</b>	Implement measures developed through the INTERREG IVA funded project (Practical Implementation of Freshwater Pearl Mussel Measures) to minimise the impact of agriculture on fresh water pearl mussels	Partnership working between Government and NGOs	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
Protection of fisheries and habitats	Undertake a focussed monitoring exercise on selected transitional waters to assess the nature and prevalence of fish disease in transitional waters. Evaluate the utility of a fish disease monitoring programme	Report on fish disease in NI transitional waters	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Develop a coordinated rolling monitoring programme for small lakes prioritised according to protected area designations and local issues	WMU Monitoring Review. AFBI SLAs with WMU and DCAL via Fish Monitoring Group	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
Protection of fisheries and habitats	Inclusion of fishery bodies within SCaMP (Sustainable Catchment Management Programme) stakeholder group	SCaMP Stakeholder Group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
Protection and	Further integration of river assessments	Inter-agency River	Modifications to measures which require



restoration of fish populations	and planned fishery habitat improvements, including targeted river restoration projects	Restoration and Continuity Group and Fish Group	partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
Restoration of fish populations	NIEA to work with DCAL Inland Fisheries Group in order to quantify, and seek through the courts, the costs in relation to fish kills.	Memorandum of Understanding between NIEA and DCAL Inland Fisheries Group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
Improved management of habitats	Develop and monitor a demonstration project based on adapted channel maintenance, and through a partnership approach	Inter-agency River Restoration and Continuity Group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
Improved Fishery Management	Develop and implement Fisheries Management Plans for Lough Neagh and Lough Erne	DCAL Fisheries strategic plan	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
Improved fish stock and species monitoring	Continue to carry out large scale fish stock monitoring when the DOLMANT survey has been completed to inform Fisheries Management Plans	AFBI SLAs with WMU and DCAL via Fish Monitoring Group	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Instigate a rolling programme of surveys for lamprey, European smelt, Sea trout and Brown trout	Loughs Agency business plan	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Control modifications to surface</b>	Develop the methodology for including river continuity in Water Framework Directive classification	Inter-agency River Restoration &	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build

<b>waters</b>		Continuity Group	understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Improve liaison with DRD Roads Service re potential road bridges inhibiting fish passage.	Liaison with DRD Roads Service through RR&C group or relevant sub group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>River and Lake restoration</b>	Inter-Agency River Restoration and Continuity Group to prioritise issues (e.g. potential barriers to fish movement) and co-ordinate river restoration and continuity work	Inter-agency River Restoration and Continuity Group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Continue to support local stakeholder restoration projects through the Environmental Challenge Fund and Fisheries Habitat works	NIEL Challenge fund and similar schemes	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Continue with Environmental Liaison Groups as part of Roads Service consultation process for each major road scheme	Environmental liaison group	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Promote guidance on management of woody habitat through grants schemes	Working in conjunction with Rivers Agency to take account of any flood risk issues as an extension/sub group of River Restoration & Continuity Group	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Control Modifications to surface</b>	Marine Environment Division to work with DRD Ports, DARD and NIEA to develop a Ports and Harbours Guidance document,	Initial discussions with DRD, DARD and MCA	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and

<b>waters</b>	outlining good environmental management within ports		not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Control removal of substrate from rivers</b>	Ensure proper protection and compliance with gravel removal legislation	Compliance with fisheries legislation	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in dangerous substances</b>	To develop the analytical methodology required to facilitate the analysis of new substances added to annex X WFD.	Delivery of surveillance, operational & investigative monitoring programmes by NIEA	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Examine the feasibility of metals monitoring by passive techniques to allow the determination of time averaged concentrations of metals in rivers at locations of concern	Pilot test of agreed methodology	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Potential introduction of pharmaceutical (Watch List) monitoring of waste water treatment works effluents e.g. Contraceptive pill	Agreed UK Programme coordinated through UKCTT	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not

			deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	To develop methodology required to facilitate time averaged analysis and other analysis as it becomes available through UKTAG and as agreed by UKTAG working groups.	Pilot test of agreed methodology	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Encourage the adoption of Pesticide Minimisation Strategies, such as that adopted by Forest Service, across other sectors	Interdepartmental Forum/IWG	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Implementation of the Sustainable Use of Pesticides	The Plant Protection Products (Sustainable Use) Regulations 2012	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Protect</b>	Further development of Drinking Water	Partnership working	Measures which require partnership working

<b>drinking water sources</b>	Protected Areas and establishment of safeguard zones to improve and maintain water quality within drinking water catchments	with NIW and DWI	are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Education and Awareness</b>	Use the Water Catchment Partnership approach to work proactively together to promote and raise awareness of best practice when using pesticides in the garden	Water Catchment Partnership programme	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Reduction in pollution</b>	Significant all-Ireland research project that will contribute to providing the evidence base for the regulation of fracking	Research programme	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Develop and agree a prosperity agreement plan with Quarry Products Association (QPA)	Partnership working	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Restoration of rivers and lakes</b>	Address the challenge of environmental degradation across North West Europe by developing a framework for the restoration of minerals sites (quarries), to provide benefits for biodiversity, habitats and local people. The 'RESTORE' project is being co-ordinated by the RSPB	INTERREG IV funded programme	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Potential for disused/ abandoned quarries to be used as flood attenuation to aid with the management of volume in river systems during flood events	Consideration under future reviews of the Flood Risk Management Plans	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
<b>Reduction in pollution from sediment</b>	Develop and enhance modelling tools to help understand the natural dynamics and science of the catchments, such as further development of the SCIMAP tool	Working in partnership with other agencies, and research community	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment.

			Therefore such measures and action were not deemed appropriate for SEA.
	Develop a pilot project in a catchment with sediment problems to consider alternative sustainable methods to dealing with issues	Partnership working with stakeholders, NGOs and Government Agencies	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	The Environmental Farming Scheme (EFS) will include measures for riverbank fencing, riparian buffers and pasture pumps. These measures will help to address sediment input to rivers caused by livestock poaching and bank erosion by livestock	Proposed EFS under the NI Rural Development Programme	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Assess the need and incorporate sediment management plans as part of NIW Abstraction Licences	Abstraction and Impoundment Licensing regime	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
	Develop expertise and knowledge to carry out catchment fluvial audits	Training course provided by River Restoration Centre	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	To develop and consult on appropriate sediment standards for UK	Working with other UK Agencies through UKTAG and related groups	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development.

			Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in pollution from sediment</b>	Consider further research into the impacts of sediment in agricultural catchments, in conjunction with nutrients and biological quality	Joint funded project and collaboration with DARD/AFBI or other external agencies.	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Trial the use of new instrumentation and technology to better understand sediment issues and impacts	In house investigations by NIEA in conjunction with external research projects.	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Consider the findings of Interreg IVA Freshwater Pearl Mussel project and implement appropriate measures in designated FWPM sites with a focus on sediment issues	Partnership working between Government and NGOs	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
<b>Reduction in pollution from sewage</b>	Review consents to discharge on a pilot catchment basis using the SIMCAT model	Programme of priority catchments to be piloted	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only

			possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
	Introduce flow and priority pollutant monitoring as part of the compliance regulation regime	Programme of compliance projects to be piloted	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Further development and implementation of innovative and sustainable measures such as the use of willows to treat effluent from small waste water treatment works and then harvesting for fuel	Negotiations as part of PC15 spending round	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA. Where an implementation stage is included in the measure the absence of specific details on the actions required will necessitate project level environmental assessment commensurate with the scale, location and intent of the planned project.
	Controlling sewage gross solids by using separation devices such as screens in unsatisfactory storm overflows	Negotiations as part of PC15 spending round	Modifications to measures which relate to the implementation of actions detailed in other Strategy documents, action plans, schemes or programmes are assumed to have been environmentally assessed, where appropriate, under the processes and procedures which resulted in their creation. For those strategies, plans etc not yet created, it is not possible to have them assessed as the details are not yet known. However as recommended in the 2009 SEA they should be subject to the requisite assessment in due process.
	Inclusion of event monitoring on networks in the vicinity of bathing and shellfish waters	Agreed programme of compliance projects funded as part of PC15	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Improve knowledge about the operation of storm overflows through more monitoring	Agreed programme of monitoring funded as part of PC15	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of



			any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	Assess the potential use of general environmental rules for small private sewage sources to ensure they are correctly operated and maintained and to prohibit polluting discharges to surface water sewers	Environmental Better Regulation Bill & subordinate permitting regulations	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Reduction in pollution from sewage</b>	Work with the water industry to develop and pilot recovering phosphorus from waste water treatment works and to pilot new technology to remove phosphorus to meet tighter discharge limits	Engage with Water Industry on any projects on phosphorous recovery	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.
	Increase awareness of need to install and maintain private sewerage systems correctly	Continue to work with 'Supply, Install, Monitor, Maintain (SIMM) group for Private waste water management	Modifications related to education and awareness measures were identified in the original SEA as being intangible in nature and not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
	In land drained for agricultural purposes, research the impacts on streams of effluent from septic tank percolation areas	Engage with research community-possible research student project	Modifications related to evidence gathering, monitoring, research and identification of source pressures measures continue to build understanding of the baseline environment begun during the Article 5 characterisation process. These measures are concerned with information gathering rather than the taking of any concrete actions and as such are not suitable for environmental assessment. Therefore such measures and action were not deemed appropriate for SEA.
<b>Reduction in pollution from industry</b>	Consider Regulatory Reform to include single integrated permits, unified inspection powers for all environmental obligations, and enhanced enforcement powers	Integrated permitting and inspection coordination group	Measures related to the review of statutory regulatory powers, licensing and the introduction of controls will result in overall positive impacts to the environment. However specific measures may result in impacts on the industries affected and may have potential negative impacts on economic development. Indirect negative impacts are also possible for other environmental receptors dependent

			upon the required changes e.g. new infrastructure which would impact upon biodiversity and soils or changes to existing practices that could impact upon air quality or climate from transport or alternate treatment and disposal. At the SEA level the details of such changes is not yet known or the locations that they may be utilised. Therefore it is only possible to assess such measures generally in relation to the Strategic Environmental Objectives. This level of assessment was carried out as part of the 2009 SEA Environmental Report.
<b>Protection of Freshwater Pearl Mussel sites</b>	Implement measures developed through the INTERREG IVA funded project (Practical Implementation of Freshwater Pearl Mussel Measures) to minimise the impact of sewage and industry on fresh water pearl mussels	Partnership working between Government and NGOs	Modifications to measures which require partnership working are intangible in nature and not suitable for strategic environmental assessment. Therefore such measures and action are not deemed appropriate for SEA but the outcomes of such working arrangements may require project level assessments commensurate with their scale, location and intent.