



Water for life and livelihoods

River Basin Management Plan
Northumbria River Basin District

Annex J: Aligning other key
processes to river basin
management

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J.1 Introduction

Purpose of annex

Ministerial guidance on River Basin Planning¹ identifies that a large part of river basin management will involve reviewing the wide range of existing policies, plans and measures and amending them where necessary, to meet Water Framework Directive objectives. This includes those for which the Environment Agency is responsible, and some which are the responsibility of other organisations.

This annex starts to identify where and how relevant policies, planning processes, management processes, programmes, initiatives and methods are being better aligned to deliver more sustainable outcomes for the water environment. The annex intentionally focuses on key planning processes that are spatially structured which are somewhat “external” to the river basin management process, namely,

- Urban and rural land use planning; and
- Flood and coastal erosion risk management.

Marine planning is also covered because of ongoing developments with the Marine Bill and alignment to River Basin Management.

The Annex identifies both national alignment of generic processes as well as more targeted local work.

Alignment, in some respects, represents a measure or an action in itself. It should help deliver more widespread and sustainable outcomes, more quickly, for on-going river basin management. This annex is not intended to be comprehensive, rather more illustrative, with the intention that this alignment should and will continue as part of on-going river basin management. Annex F identifies many of the key legislation, policies, plans and programmes that can help to deliver Water Framework Directive objectives.

Drivers for alignment

Government and a number of public bodies have a duty to help deliver sustainable development and most other organisations, whether public or private, have made commitments to carry out their activities with sustainable development in mind. In doing this the environmental dimension of sustainability must be balanced against economic and social dimensions. The general aim of the Water Framework Directive is to deliver sustainable water management. Any significant policy, planning process, management process, initiative or programme which has the potential to impact on water or the water environment should therefore consider the philosophy (Water Framework Directive, pre-amble), aims (Water Framework Directive, Article 1) and objectives (Water Framework Directive, Articles 4 & 7) of the Water Framework Directive.

Likewise, in delivering sustainable water management, implementation of the Water Framework Directive will need to consider economic and social dimensions while planning to deliver environmental outcomes. The main processes and mechanisms to do this are through the economic appraisal processes required to justify alternative objectives (Water Framework Directive, Article 4(3-7)) and the supporting impact assessments and recommendations from the Strategic Environmental Assessment reports which accompany the draft and this first River Basin Management Plan.

¹ River Basin Planning Guidance. Department for Environment, Food and Rural Affairs & Welsh Assembly Government. 2006
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In the Regulations² implementing the Water Framework Directive in England and Wales there is a general legal duty on all public bodies, in exercising their functions, so far as affecting a river basin district, to have regard to the river basin management plan and any supplementary plans.

Article 4(7) of the Water Framework Directive sets out the circumstances under which a deterioration in water body status or failure to meet Water Framework Directive objectives is permitted, where certain conditions are met. River basin management will involve reviewing the wide range of existing policies, plans and processes, discussed in this annex, in order to manage new physical modification. Managing new modifications will require an assessment of the potential impact of the modification on water body status and an application of Article 4(7) where appropriate. The Environment Agency will review its own policies, plans and processes to incorporate a new process to manage new modifications through environmental assessment. The Environment Agency will provide guidance and advice to external organisations to ensure that no deterioration and water body objectives are met where new modifications are proposed, and an Article 4(7) defence is applied where necessary. The baseline water body status against which deterioration will be assessed is that reported in this River Basin Management Plan (see Annex B).

All new physical modifications occurring in water bodies between December 2006 and March 2009 have been assessed according to Art 4(7) requirements. Where a physical modification was identified as likely to have caused a deterioration in status or prevented a water body from meeting its water body objectives, then the Article 4(7) tests were applied. The results of this assessment are reported in Annex B of this plan. The list of physical modifications considered as part of the assessment was compiled from Environment Agency functions and external bodies (for example British Waterways and the Association of Inland Navigation Authorities).

Ministerial guidance on river basin management planning³ identifies that the Environment Agency should:

- promote and encourage awareness of impacts that activities and policies of other public bodies have on the water environment;
- work with other public bodies to develop good links between river basin [management] planning and other relevant plans and strategies, especially those plans that have a statutory basis (for example Regional Spatial Strategies and Local Development Frameworks/ Local Development Plans);
- promote and encourage the inclusion of water framework directive considerations in public bodies' plans, policies, guidance, appraisal systems and casework decisions;
- take action to integrate and streamline its own plans and processes.

The guidance identifies that this should be a two way process.

Ministerial guidance on classification and standards for water⁴ identifies the environmental standards that must be embedded into Environment Agency policies, planning processes and classification schemes.

European and UK policies on climate change adaptation are also developing on the basis not only that climate change considerations need to be aligned into existing processes but also that aligning existing processes should, in itself, help deliver significant benefits for climate change adaptation (see Annex H).

² The Water Environment (Water Framework Directive)(England and Wales) Regulations 2003, Statutory Instrument 2003 No. 3242

³ River Basin Planning Guidance. Department for Environment, Food and Rural Affairs & Welsh Assembly Government. 2006.

⁴ Water Framework Directive: Directions to the Environment Agency on Classification of Water Bodies Department for Environment, Food and Rural Affairs & Welsh Assembly Government 2009

This annex addresses almost unanimous stakeholder support⁵ for the principle of better alignment and where possible integration of relevant processes to:

- help deliver more sustainable water outcomes more quickly;
- identify synergies and the possibility of more radical multiple-benefit solutions;
- deliver more efficient stakeholder engagement.

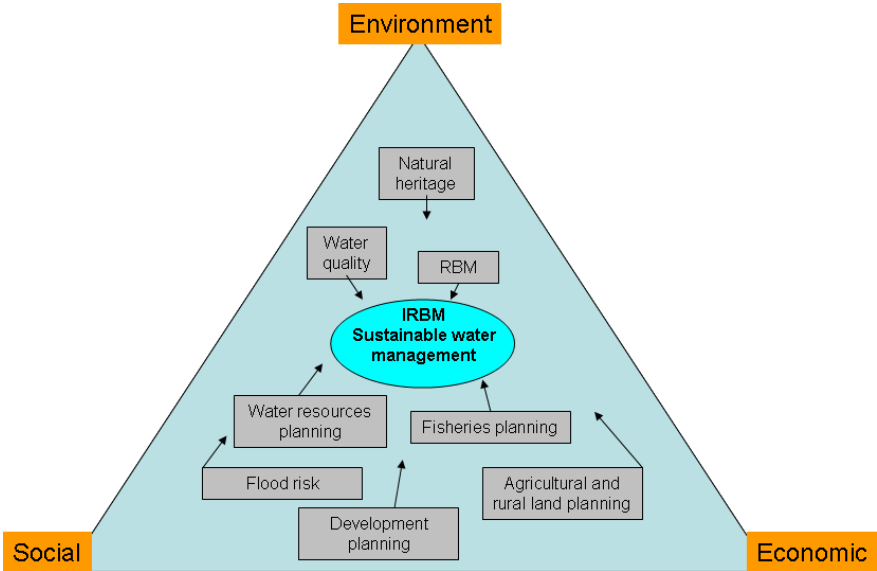
Opportunities for alignment

There are considerable overlaps between the aims, objectives and processes of many existing activities to those of the Water Framework Directive^{6,7}. This means there are significant opportunities for alignment. However there are issues which make this alignment complex such as differences in: responsible parties; spatial and temporal scale of planning and implementation; processes and tools; source funding restrictions and priorities. However significant progress can be made if parties are willing and clearly guided.

Alignment can be performed through better integration of policy (EU and UK), the consideration of the objectives and outcomes of different processes through planning **and** implementation activities and the embedding of process steps (e.g. option appraisal and justification of alternative objectives) and standard methods in existing processes. It is important that this alignment is ongoing through close working between key stakeholders at different organisational levels from national to local.

Figure J1 illustrates some of the key processes, which have an impact on sustainable water management and where they might sit, in terms of emphasis, in the three key dimensions of sustainability: environmental, societal and economic.

Figure J1: Some of the key processes which have an impact on sustainable water management.



⁵ Water for life and livelihoods. A framework for river basin planning in England & Wales. Environment Agency. Feb 2006

⁶A research study into the production of Registers of Strategic Management Plans and Stakeholders. Feb 2002. For the Environment Agency by Land Use Consultants (in association with Conlan Consulting)

⁷ Consistent Economic Appraisal Approaches with Respect to the Water Framework Directive River Basin Management Plans. Collaborative Research Programme on Water Framework Directive economics Final report. Jan 2006. For the Welsh Assembly Government and Water Framework Directive Collaborative Research Programme by Jacobs in association with ADAS

The Strategic Environmental Assessment reports which accompany the draft and this first River Basin Management Plan identifies some of the potential positive and negative impacts of other processes on the river basin management process and vice-versa.

J.2 Building, town & country planning and regeneration

Introduction

In England despite the current economic conditions, the National Housing and Planning Advice Unit feels that, housing affordability and unsatisfied housing need has not lessened the demand for new homes and associated infrastructure (roads, schools, waste management and utilities etc). The Government still expects the number of new homes to rise significantly with three million additional homes proposed by 2020. This represents an increase of up to 40 percent over existing housing development rates and these are reflected in the latest rounds of Regional Spatial Strategies. Recent National Housing and Planning Advice Unit advice has suggested a possible need to consider even higher rates of housing delivery in England. This would be tested through revisions to Regional Spatial Strategies or the new Single Regional Strategies required under the Local Democracy, Economic Development and Construction Bill.

The impacts of all these new homes on the water environment and achieving Water Framework Directive objectives would be tested through the spatial planning system and its examination and appraisal processes as outlined below. For example, some of this development is in already water-stressed areas. The Government's Strategy for Water in England "Future Water"⁸ identifies that water efficiency will be taken into account in planning and delivery of housing growth.

Main aims of the spatial planning system

Under Section 39 of the Planning & Compulsory Purchase Act 2004, planning in England and Wales has the statutory purpose of contributing to the achievement of sustainable development as set out in the UK Sustainable Development Strategy⁹ and the Welsh Assembly Government's Sustainable Development Scheme for Wales¹⁰. The planning and management of development must therefore protect and improve the environment, respect within environmental limits and contribute to a healthy and just society.

The spatial planning system has a direct and legitimate role in addressing the potentially significant sustainability implications of growth and development, particularly those arising through increased house building rates. This includes the very real impact new development can have on the water environment.

Local Authorities in England and Wales, Regional Assemblies in England, the Greater London Authority, National Parks Authorities and the Broads Authority constitute Planning Authorities. They are required to develop spatial land use plans to guide development and land use activity within their areas.

At the level of the English Regions and Greater London this is through Regional Spatial Strategies and the London plan, respectively. These set policies in relation to development and land use, including the setting of specific house building targets for local authorities within their areas. Below these are local authority produced Local Development Frameworks. These identify locations for certain types of developments, including a 5 year

⁸ Future Water- The Government's Water Strategy for England. Defra. HM Government, Feb 2008.

⁹ Securing the future- delivering the UK sustainable development strategy. Defra Mar 2005.

¹⁰ <http://wales.gov.uk/topics/sustainabledevelopment/publications/onewalesoneplanet/?lang=en>

supply of housing sites to meet their housing targets and policies to control certain aspects of their form, location and, potentially, timing of development.

Together these represent the 'development plan' which provides the policy framework against which development must be assessed

These plans are subject to Sustainability Appraisal (incorporating Strategic Environmental Assessment) and will be tested through an Examination in Public.

Guiding the overall operation of this system is a range of planning policy guidance provided by Planning Policy Statements.

The new Infrastructure Planning Commission and National Policy Statements

Major infrastructure projects such as ports, power stations and transport schemes will have significant potential impacts on the water environment. Currently these are dealt with through other planning regimes¹¹.

The Planning Act 2008 creates a new system of development consent for certain types and scales of nationally significant infrastructure. Part 3 of the Act outlines the types and scales of development which will be covered by this new consent regime. This has established the formation of an Infrastructure Planning Commission who will examine and determine these proposals. To guide them a set of National Policy Statements covering these infrastructure types is currently being developed and, when in force, will set the framework for the Infrastructure Planning Commission's decisions.

Spatial Planning and the delivery of the water framework directive

The role of spatial planning is hugely important in improving the water environment, and as a minimum, the activities of all public bodies must not lead to a deterioration of the water environment. Regional and sub-regional and local plans and activities have a far-reaching influence on local business and communities.

The sustainable development duty which underpins spatial planning provides a real opportunity for the control of development to ensure we get the right type and quality of development, in the right place and at the right time. The spatial planning system can therefore be better aligned with Water Framework Directive to take Water Framework Directive objectives into account through national guidance and local processes. For example, it is essential that sustainable water management is incorporated into spatial plans and local guidance (such as Supplementary Planning Documents) and the control of applications for planning permission (such as Planning Conditions and section 106 Agreements). One way to ensure this happens is through their Strategic Environmental Assessment, for which the Environment Agency is one of the statutory consultees.

Public bodies should also identify opportunities for improvements and restoration work to maximise any contribution to meeting the Water Framework Directive objectives. Key areas of work are flood risk, land management and transport. Tools such as Water Cycle Studies (in England) at a project level can help identify and realise significant benefits for the water environment.

These spatial plans are also subject to Habitats Regulations Assessment which will assess their impact on and need to avoid and reduce impact to water-based Natura 2000 sites.

¹¹ These regimes include the Transport & Works Act 1992, the Electricity Act 1989, the Highways Act 1980, the Gas Act 1965, the Harbours Act 1964, and the Pipelines Act 1962.

The table below identifies the main Water Framework Directive pressures affected by growth and development and how spatial planning can contribute to addressing these.

Table J1- Main Water Framework Directive pressures affected by growth and development and how spatial planning responses can contribute to addressing these.

Water Framework Directive pressure	Contribution of growth and development to pressure	What spatial planning may be able to do address this
Point Source pollution	<ul style="list-style-type: none"> • increased loads for waste water (Biological Oxygen Demand, nutrients, chemicals) treatment of additional flows from new development. 	<ul style="list-style-type: none"> • timing and phasing development to coincide with delivery of additional capacity to meet demands from urban growth and industry. • include policy in spatial planning documents (e.g. for sustainable drainage systems and place conditions on the grant of planning permission to control the rate of runoff from new development into combined sewer systems – reducing frequency of storm overflow discharges. • ensure that development is designed to integrate these principles from the outset. • use of water cycle strategies early in development planning
Diffuse non-agricultural pollution	<ul style="list-style-type: none"> • during construction (mobilisation of contaminants, sedimentation, pollution incidents etc). • afterwards through biological, chemical and other pollutants/sediments washing off from hard standing areas into watercourses. • risk of misconnections 	<ul style="list-style-type: none"> • where land may be affected by contaminants, include policies in development plan documents which encourage sustainable remediation techniques which reduces/removes/render them harmless. • encourage good construction practices. • require sustainable drainage systems which improve the quality of runoff rather than just controlling its quantity/rate.
Pressure on the quantity of water	<ul style="list-style-type: none"> • abstraction and other artificial flow pressures arising from need to supply water to new developments. • developments leading to physical modification of water courses, affecting the quantity and dynamics of flow (the hydrological regime). 	<ul style="list-style-type: none"> • slow the increasing demand for water, e.g. through water efficiency policies (the code for sustainable homes and BREEAM incl. water efficiency measures). • production and promotion of design guidance including retro-fitting. • timing and phasing development to coincide with delivery of enhancements to water storage, transfer systems and local supply networks. • use of water cycle strategies early in development planning.
Other impacts on the status of water	<ul style="list-style-type: none"> • pressure for physical modification of watercourses (morphology). • development in areas of flood risk (or development which increases flood risk elsewhere). • biological pressures - including fish stocking, biota removal, invasive non-native species. • increased pressure from 	<ul style="list-style-type: none"> • spatial planning documents to include policies which protect natural water bodies from modification, and the improvement and naturalisation of heavily modified water bodies. • applying Planning Policy Statement 25 (flood risk) by locating development sites outside of flood risk areas, controlling the rate and impact runoff downstream and mitigating the potential impacts of flood defences, drainage works and surface water management on water bodies. • seek the inclusion of green infrastructure policies within spatial planning documents. Green

Water Framework Directive pressure	Contribution of growth and development to pressure	What spatial planning may be able to do address this
	Recreation (e.g. boating, fishing). <ul style="list-style-type: none"> • loss and fragmentation of habitats and green space • soil sealing (extensions, drives patios) 	infrastructure can help deliver sustainable water management to help address existing issues and mitigate the effects of new development.

Each of the responses outlined above can be addressed sequentially at different stages of the planning process. For example, to address water resources it is necessary to analyse capacity and major infrastructure in a region (within Regional Spatial Strategies), consider local infrastructure and housing and other growth delivery trajectories in particular locations (Local Development Frameworks and Plans), and influence water efficiency in buildings through master-planning and the planning application process.

However, it should be noted that spatial planning does not generally influence the performance of existing development and the significant and ongoing impacts this will have on the water environment. There may be some exceptions where, to be sustainable, new development is subject to ‘neutrality’ policies which require efficiencies (i.e. water use) to be made within existing development. However initially the Environment Agency expect only a limited number of these situations. Other mechanisms will be required to manage this impact¹². It is clear however that more needs to be done, with Local Authorities, in housing renovation programmes. Work is ongoing to develop and ensure the implementation of appropriate actions to address this.

Aligning spatial planning and river basin management planning

As a statutory consultee, the Environment Agency already has much involvement in the spatial planning system through its existing work. Whilst the Spatial Planning system provides structures and mechanisms for delivering some of the outcomes of the Water Framework Directive, further work is already underway to better align these so they support the delivery of Water Framework Directive objectives.

To properly align river basin management and spatial planning to achieve the objectives of each regime we will all have to apply new standards, and over a period of time, review external guidance and policy and our advice to spatial planners so that development plans and planning applications become Water Framework Directive compliant.

There are three main areas in which Spatial and river basin management can be better aligned. These are set out below:

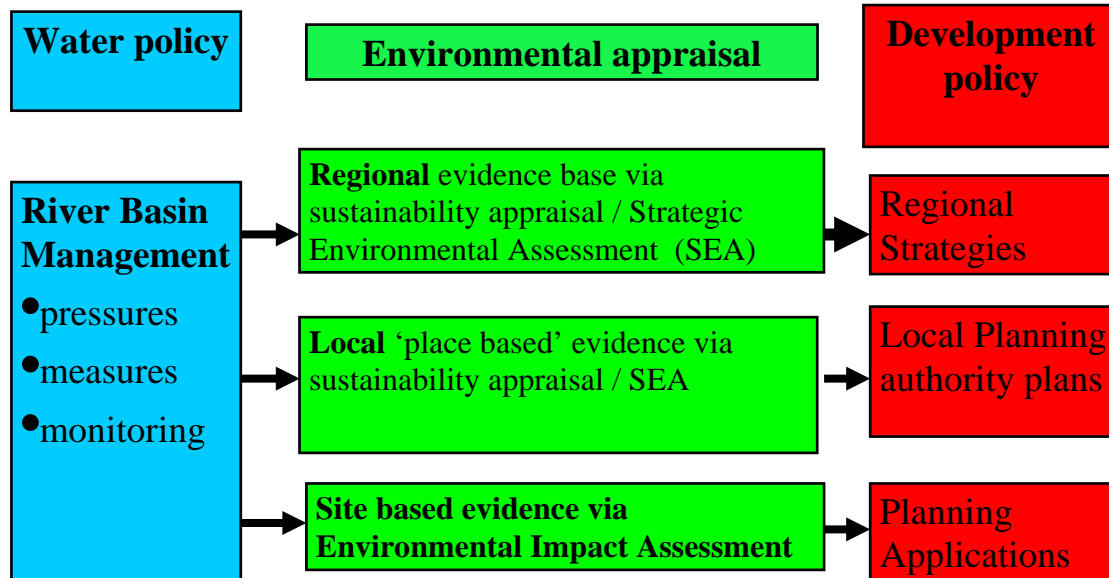
- **Providing the evidence support to the spatial planning system through River Basin Management**

River basin management under the Water Framework Directive and the River Basin Management Plans provide key information on the pressures on the water environment. As such the River Basin Management process can provide a robust evidence base to help the key planning stages of spatial plan options development and site allocations. It will also provide confidence in the deliverability and soundness of plans and be an invaluable input into any public examinations, including technical seminars and evidence sessions. A key

¹² See “Future Water: The Governments water strategy for England. HM Government. Feb 2008
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way align the spatial and water planning systems is to ensure the analysis done for River Basin Management (and the RBMPs) feeds into the evidence and appraisal process required for all plans and the consideration of individual planning applications (see below).

Figure J2 – **Proposed interaction of river basin management with the planning system**



- **Providing Planning Guidance**

Further work by Government (supported by the Environment Agency) is already underway to clarify the implications for spatial planning and delivery of planned development. In England, primarily, this will occur through the production of a Water and Planning guide by Communities and local Government – aimed for publication in late 2009 or early 2010. This guidance will set out government policy on water relevant to spatial planning and specifically what considerations local authorities and others involved in planning should take. It will also detail steps local authorities should or could take to reflect these considerations in local spatial plans.

Additionally, through the public consultation on National Policy Statements (and their accompanying Appraisals of sustainability) the impacts of these significant infrastructure projects on Water Framework Directive objectives will have to be embedded into this policy framework which will guide the Infrastructure Planning Commission’s decisions.

- **Providing spatial planning advice as statutory consultee**

There is also a need to ensure Water Framework Directive objectives are better aligned with existing Environment Agency processes for engaging with spatial planning and the advice the Environment Agency provide to planning authorities. To these ends the Environment Agency intends to:

- Better co-ordinate its internal spatial planning policy work with other internal policy teams such as Sustainable Communities and river basin management teams;
- Influence Government Departments and national bodies to issue Water Framework Directive guidance and training for the planning profession;
- Review internal Environment Agency processes for dealing with Regional Spatial Strategies, Local Development Frameworks/Plans and planning applications and ensure that they meet Water Framework Directive requirements;

- Review and improve our internal guidance to our teams to influence the spatial planning system to take account of Water Framework Directive objectives in spatial planning documents and policies; and
- Review and issue work instructions for our staff on how to take Water Framework Directive objectives into account when responding to planning consultations;
- Make Water Framework Directive information available to planning authorities in a useful format (e.g. Environment Agency “Environmental Information for Decision Makers project”).

Timescales

Overall timescales align, however the timescales for the production and review of regional spatial strategies and local development frameworks and the production and publication of the first River Basin Management Plans do not.

There is much variation on the production and adoption of spatial planning documents across England and Wales. Many spatial planning documents will have reached the submission stage before the first River Basin Management Plan has been published. This means that the emerging first River Basin Management Plans will have less weight in planning terms and may not have fully influenced the spatial planning documents. However, as adopted spatial plans are reviewed and the first River Basin Management Plan is published in December 2009, the spatial planning system will have to consider how to “have regard to the River Basin Management Plan” and how much weight is given to this in the decision making process.

Northumbria River Basin District activity on alignment of building, town & country planning and regeneration for water framework directive

Here we identify some specific examples of alignment of building, town & country and regeneration planning that has occurred in the Northumbria River Basin District.

Policy 34 of the North East Regional Spatial Strategy, titled “The Aquatic & Marine Environment” refers to ‘River Basin Management’ and says strategies, plans and programmes, and planning proposals should:

- a. ensure that any schemes involving the transfer of water between catchments have consideration to the impacts on environmental and recreational assets of areas both nearby and upstream of the transfer base, particularly in relation to Kielder Water;
- b. integrate the objectives of emerging and existing plans and strategies which consider the wider management of water bodies, groundwater and coastal / marine areas;
- c. ensure that the construction and use of new development along river corridors takes account of its potential polluting effects; any opportunities for improvements and conservation of water quality; the possibility of flooding onsite and elsewhere along the watercourse; the availability of water resources; biodiversity; the impacts of climate change and the incorporation of necessary adaptation and mitigation measures, and the risk from minewater pollution;
- d. ensure, where appropriate, that Sustainable Drainage System techniques are adopted;
- e. set a positive policy framework for delivering plans for Integrated Coastal Zone Management, River Basin Management, Shoreline Management and Catchment Flood Management for the Region’s coastal, estuarine and near-shore zones by adopting an ecosystem based approach to promote the recovery and conservation of marine eco-systems, including designated sites, favouring the evolution of the coast, estuaries and near-shore zones through natural processes wherever possible and seeking to safeguard the conservation of marine heritage features;

- f. take into account, and where possible plan to ameliorate, the risk of “coastal squeeze” having an impact on internationally designated nature conservation sites; and
- g. promote appropriate water-based recreational and leisure opportunities, particularly at Kielder Water and along the Region’s coastline.

J.3 Rural planning and agriculture

Introduction

Because of the long-term risk of agricultural activities to the water environment, water supplies and to the quality of groundwater, it has recently been the focus of new policy development and programmes.

The current planning process for rural areas in England and Wales

The Town and Country Planning system (See Spatial Planning above) provides the most significant controls over land use planning in rural areas. However agricultural land managers still retain many permitted development rights for built development and are able to use land for different types of agriculture, or manage it in different ways which change environmental impacts. The current planning system for development does not address agricultural impacts on water.

Public incentive and subsidy led programmes

There are a variety of programmes, which provide substantial incentives and subsidies for land managers for a range of purposes, which can create a very strong motivation for changing land management or land use.

Programmes with a clear relevance to the river basin management process include:

- The Single Farm Payment of the Common Agricultural Policy and the design and implementation of the associated cross-compliance conditions;
- The Rural Development Programme for England;
- The EU Structural Fund programmes.

Regional Government offices, Regional Development Agencies, Natural England and the Forestry Commission are in charge of a large proportion of the planning and implementation of areas of work regarding rural development.

Single Farm Payments and the Rural Development Programme for England-operate on different funding cycles to the Water Framework Directive, making coordinated planning more difficult. Water Framework Directive objectives are included in agri-environment schemes, but it is a relatively recent driver for investment. The England Catchment Sensitive Farming Delivery Initiative, currently funded by Defra separately from the Rural Development Programme for England, aims to address biodiversity and water quality issues related to diffuse water pollution from agriculture and will also help to meet Water Framework Directive objectives. The Government’s Land Use Foresight Project will look at how to address the impacts of water and land on each other in the longer term.

Coordination of the rural planning system

Planning for rural areas is co-ordinated largely through Regional Spatial and Economic strategies which include both urban and rural issues. Delivery bodies in the Regions tend to plan individually. In order to deliver successfully in rural areas, river basin management will need good co-operation between delivery bodies.

Rural planning processes that can potentially be aligned to the river basin management process, at a *policy and planning* level, are:

- Future diffuse pollution reviews, scientific evidence and related strategies and policy development that will derive from them;
- Future development of agriculture-specific and forestry-specific regulations addressing issues of significant risk;
- EU Common Agricultural Policy health check challenge agenda and periodic reviews of cross-compliance regulatory requirements;
- Future development of cross-compliance standards under the reformed Common Agricultural Policy;
- Future review of Rural Development Programmes particularly further development of Land Management Schemes and Catchment Sensitive Farming initiatives;
- Future reviews of National and regional strategies for trees, woodland and forestry focusing on the use of broadleaf woodland to reduce pollution risk.

There are also numerous, more specific, strategies which will offer an opportunity for future alignment with the river basin management process to reflect water planning objectives.

Strategy developers should be encouraged to accept the link between activities on land and their effect on water quality and the water environment. They should increase their emphasis on protection and improvement of soil and water quality and resources, make specific reference to the need of promoting better water quality outcomes and to the roles of agriculture and forestry in meeting Water Framework Directive objectives. Where possible, they should seek development of integrated strategies covering both agricultural and forestry management for each country, and provide a consistent message to land managers.

Northumbria River Basin District activity on alignment of rural planning and agriculture for water framework directive

Here we identify some specific examples of alignment of rural planning and agriculture that have occurred in the Northumbria River Basin District.

The Tees Water Colour Project, Peatscapes, Cheviot Futures, Fore Shores and until recently the Whittle Dene Project are all initiatives that seek to explore the links between rural land management and the delivery of wider benefits

The England Catchment Sensitive Farming Delivery Initiative focuses on catchments that are aligned with the Water Framework Directive as they have been identified as at risk from diffuse pollution from agriculture, particularly those impacting on protected areas, such as Natura 2000 sites and drinking water protected area.

The Environment Agency will also input into the development of county plans under the industry-led Campaign for the Farmed Environment which aims to recapture the environmental benefits of set-aside to ensure resource protection measures are targeted at catchments that have been identified as being a priority for tackling agricultural diffuse pollution through the Water Framework Directive

J.4 Forestry management

Both commercial and recreational forestry activities deliver significant economic and social benefits, but they can also impact on the environment.

Forest management and planning falls outside the boundaries of development planning regulation and the Environment Agency is not a statutory consultee on forestry issues. A key element for successful implementation of the Water Framework Directive will therefore be the establishment of appropriate links between the River Basin Management and the forest planning and regulation systems in England and Wales. The Environment Agency is currently able to comment on a non-statutory basis on license applications submitted to the Forestry Commission. The Environment Agency also serves on steering groups involved with the Regional Forestry Frameworks and can exert influence via this route too.

Operational issues

The Forestry Commission produced (in conjunction with a working group) the 'Forests and Water Guidelines'. These guidelines provide the basis for sustainable management of the water environment by forest planners and managers. The fourth edition of these guidelines is currently being revised, and will take into account the Water Framework Directive. In order to ensure the sustainable management of the water environment by forest planners and managers it is important to bring about the widespread adoption of the "Forests and Water Guidelines", both in terms of management practices and in the planning of new forests.

Going forward we will all have to build on our assessments of the extent and types of pressures affecting the aquatic environment in forested catchments. Parties will need to work in partnership to implement River Basin Management in relation to both planning and management and influence forestry management practices with appropriate agreed management actions.

J.5 Flood and coastal erosion risk management

EU Floods Directive

Implementation of the EU Floods Directive (Directive 2007/60/EC on the assessment and management of flood risks) will be closely co-ordinated with the Water Framework Directive. The assessment and management units (e.g. river basin districts) and the planning cycles for the two directives will be closely aligned. The EU Common Implementation Strategy for the Water Framework Directive also supports the implementation of the Floods Directive, through Working group F on Floods. This group is co-ordinating implementation as a core activity in its work-programme. As well as administrative co-ordination, the Floods Directive requires that the environmental objectives of the Water Framework Directive are taken into account in flood and coastal erosion risk planning.

Flood and Coastal Erosion Risk Management Strategies

The Government, through the draft strategy for Flood and Coastal Erosion Risk Management (FCRM), 'Making Space for Water'¹³, has expressed the intention to move towards a more holistic approach to FCRM that takes into account all sources of flooding.

Their stated aim is to manage risks by employing an integrated portfolio of approaches which reflect both national and local priorities, so as to:

¹³ First Government response to the autumn 2004 Making space for water consultation exercise, March 2005
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- reduce the threat to people and their property; and
- deliver the greatest environmental, social and economic benefit, consistent with the Governments' sustainable development principles.

This shift in emphasis fits in with the concept of integrated river basin management that the Water Framework Directive seeks to establish. However there are other FCRM initiatives that are already moving the sector towards this way of working and that will help to deliver Water Framework Directive objectives and measures.

Flood and Coastal Erosion Risk Management Outcome Measures

From 1st April 2008 "Outcome Measures" became the new performance framework to measure the overall benefits of FCRM investment in England. The outcome measures have been developed as part of the "Making Space for Water" programme, to provide greater clarity on what policies and funding for flood and coastal erosion risk management are intended to achieve. As well as providing criteria for the prioritisation of projects, the outcome measures have also been used to set targets for FCRM over the current spending review period.

Through the delivery of outcome measures 4 and 5 (table J2), FCRM activities already contribute to delivering more sustainable water outcomes for River Basin Management.

Table J2 "Making Space for Water" outcome measures 4 & 5

Outcome Measure	Description
Outcome measure 4. Nationally important wildlife sites	This measure will record, through liaison with Natural England and Countryside Council for Wales, the delivery of flood, water level and coastal management remedies which contribute to the government target to have 95 per cent of Sites of Special Scientific Interest in favourable condition by 2010.
Outcome measure 5. UK Biodiversity Action Plan habitats	This measure will record the overall increase in Biodiversity Action Plan habitat achieved through flood and coastal erosion risk management activities by March 2011. This is to contribute towards delivery of the Environment Agency Wetland Policy to 'conserve, enhance and re-create the wetland capacity of catchments as part of our contribution to rebuilding biodiversity on a landscape scale'.

Pitt Review

The Pitt Review provided recommendations following flooding which struck much of the country in England and Wales in June and July 2007. The floods were extreme, affecting hundreds of thousands of people and was the most serious inland flood since 1947.

The Review contains 92 recommendations that are addressed to the Government, Environment Agency, local authorities, Local Resilience Forums, providers of essential services, insurers and others, including the general public¹⁴.

The Government supports all of the recommendations in the Review. Recommendations that could affect the delivery of River Basin Management Plans are mostly concerned with improvements to the spatial planning system, or high level flood risk management planning processes that could lead to diffuse pollution from urban sources and working better with natural processes whilst delivering flood risk management. The Environment Agency has already acted on many of these recommendations.

¹⁴ 'Learning lessons from the 2007 floods', Sir Michael Pitt, June 2008
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Surface Water Management Plans

The Pitt Review (recommendation 18) concluded that surface water management plans should provide the basis for managing local flood risk. A Surface Water Management Plan is a framework through which key local partners with responsibility for surface water and drainage work together to understand the causes of surface water flooding and agree the most cost effective way of managing that risk.

The Surface Water Management Plan can also provide a framework for the management of urban water quality (e.g. the control of discharges from combined sewer overflows, surface water drainage outfalls, sustainable drainage systems and the urban surface generally). Solutions which can address both flood and pollution risk have dual benefits, and can contribute to fulfilling improvements and compliance in ecology, water quality and habitats required under the Water Framework Directive.

Integration of Water Framework Directive objectives through environmental assessment

FCRM plans and projects will try to deliver River Basin Management objectives and measures in parallel where an opportunity exists to do this. Environmental assessment and compliance under the Environmental Impact Assessment and Strategic Environmental Assessment Directives entails that FCRM projects already take account of the Water Framework Directive, and this requirement is supported by Guidance on the Appraisal of Flood and Coastal Risk Management¹⁵.

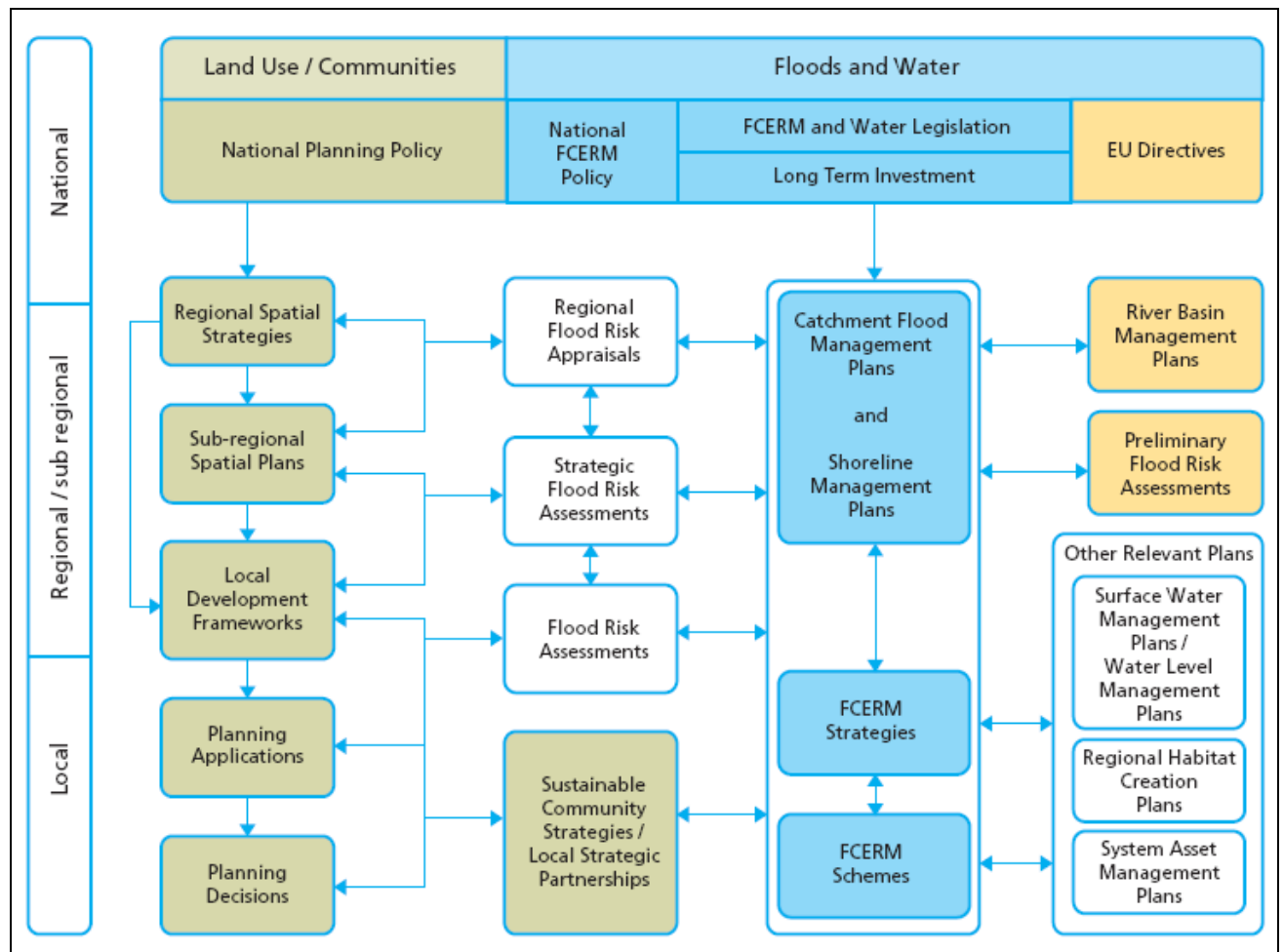
A number of research and development projects are being conducted to support this work including: Defra's FD2609 research project 'Water Framework Directive and Expert Assessment' will set out appropriate ways of assessing the ecological impact of a FCRM scheme; The 'Mitigation Measures Manual for Flood and Coastal Erosion Risk Management and Land Drainage' will provide an online toolkit for project managers to design appropriate hydromorphological mitigation measures into FCRM schemes; and the Environment Agency project 'Mitigation Measure Trials' will put in place a programme of trialling and monitoring of a number of mitigation measures (e.g. Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution; Increase in-channel morphological diversity etc).

Taking river basin management into account in high-level Flood and Coastal Erosion Risk Management planning

River basin management will be taken into account in all levels of FCRM planning (see figure J3 – for England).

¹⁵ Appraisal of flood and coastal erosion risk management - A Defra policy statement, June 2009
Environment Agency River Basin Management Plan, Northumbria River Basin District
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Figure J3- The flood and coastal erosion risk management planning framework for England



Shoreline Management Plans: The second generation of Shoreline Management Plans are currently being developed. Guidance has been published that enables these plans to take Water Framework Directive objectives into account¹⁶. The guidance also requires a high level assessment of the ecological impact of each Shoreline Management Plan policy, to ensure that any conflict with the objectives of the Water Framework Directive are flagged up as early as possible in the coastal FCRM planning process.

Catchment Flood Management Plans (CFMPs): Policies and their supporting actions that have been set out in the recently published CFMPs will move FCRM towards a catchment-based approach that will help to deliver sustainable water objectives. However these actions are not yet funded and will be subject to further planning so cannot be included as measures within the River Basin Management Plans.

The Environment Agency has carried out an exercise to determine where CFMP policies may present opportunities and constraints in each River Basin Management Plan. The generic CFMP policies and their possible ramifications for river basin management are listed below in table J3. A river basin district specific analysis of the distribution of these policies is found in table J4.

¹⁶ Assessing shoreline management plans against the requirements of the Water Framework Directive, April 2009
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Table J3 – Catchment Flood Management Plan policies

Policy	Description of policy	Interaction with River Basin Management Plans
1	Areas of little or no flood risk where the Environment Agency will continue to monitor and advise	This policy unit is unlikely to be currently managed for flood risk so no change.
2	Areas of low to moderate flood risk where the Environment Agency can generally reduce existing flood risk management actions	Opportunities to remove or allow the natural decay of existing physical modifications. Maintenance may be reduced, so pressures stemming from biota removal and other maintenance activities could be addressed. Diffuse and point source pollution may increase with the effects of climate change (such as increased storminess), as will sedimentation.
3	Areas of low to moderate flood risk where the Environment Agency are generally managing existing flood risk effectively	May require the same level of physical modification to be sustained. The frequency of instances of point source pollution are likely to remain similar, but there may be more diffuse pollution and sedimentation in line with increased storminess from climate change leading to more run-off from agricultural and urban infrastructure.
4	Areas of low, moderate or high flood risk where the Environment Agency are already managing the flood risk effectively but where we may need to take further actions to keep pace with climate change	Level of physical modification may have to increase to cope with increased risk from climate change. However, more holistic solutions may be found to compliment existing structures and minimise increases in run-off, possibly providing opportunities for diffuse pollution and sedimentation reduction. Biota removal and other maintenance activities might also be increased or decreased.
5	Areas of moderate to high flood risk where the Environment Agency can generally take further action to reduce flood risk	Probable increase rather than reduction in the level of physical modification, but the area is likely to already be designated as 'heavily modified'. Biota removal and other maintenance activities may increase. Complimentary Flood and Coastal Erosion Risk Management solutions may be promoted that improve the way land is managed, or utilise natural flood storage on tributaries that contain less risk. This could offer opportunities for the reduction of pressure on water bodies from diffuse pollution and sedimentation.
6	Areas of low to moderate flood risk where the Environment Agency will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits	Opportunities to reduce pressure from diffuse pollution and sedimentation. Levels of physical modification may increase or decrease in these policy units as flood storage may be natural floodplain storage or artificially created flood storage. Maintenance activities such as biota removal could also increase or decrease depending on the type of flood storage required.

Northumbria River Basin District activity on alignment of flood risk and coastal erosion risk management for water framework directive

Here we identify some specific examples of flood risk and coastal erosion risk management that have occurred in the Northumbria River Basin District.

Catchment Flood Management Plans

Our recently developed Catchment Flood Management Plans (CFMPs) set out the long term direction of flood risk management for individual catchments. They set holistic policies for managing flood risk for the next 50-100 years, taking into account changes such as climate change, urbanisation and land management.

Each of the six generic policies found in CFMPs offer different opportunities and constraints for delivery of the Water Framework Directive. The generic CFMP policies and their possible ramifications for river basin management are listed above in table J3.

The Environment Agency has analysed the distribution of CFMP policies in each catchment of the Northumbria River Basin District to see where these opportunities and constraints are, the results are found below in table J4. The figure represents the proportion of water bodies in each catchment of the river basin district that could be affected* by each generic CFMPs policy. Please note that these are Water Framework Directive management catchments rather than CFMPs catchments.

*those where 20 per cent or more of the water body is located within a CFMP policy type.

Table J4 – Distribution of Catchment Flood Management Plan policies in Northumbria River Basin District

Northumbria River Basin District - Catchment Name	Number of water bodies	Policy 1	Policy 2	Policy 3	Policy 4	Policy 5	Policy 6
Northumberland Rivers	95	20%	17%	24%	0%	31%	15%
Tees	83	6%	2%	70%	0%	22%	5%
Tyne	116	0%	55%	41%	5%	0%	0%
Wear	68	21%	22%	12%	3%	22%	25%
Northumbria River Basin District	362	10%	27%	38%	2%	17%	10%

National Indicators

In meeting one of the overall aims of Water Framework Directive; reducing the effects of floods, we are working with flood and coastal erosion risk management staff to tie into the delivery of Local Government National Indicator 189 FCRM.

This performance measure identifies the need for local authorities to deliver actions within CFMPs relevant to them. Local Authorities also have a duty to have regard to the River Basin Management Plans. Local Authorities are identified as one of the key external partners that can help us deliver actions within the River Basin Management Plans. By identifying relevant actions within the CFMPs and prioritising Local Authorities according to our artificial and heavily modified water bodies we are able to be more proactive in our engagement and delivery of environmental improvements.

J.6 Marine

The Marine and Coastal Access Bill introduces a new strategic planning framework for the marine environment across England and Wales. Marine plans will be underpinned by a UK-wide Marine Policy Statement that will provide a consistent policy steer for decision makers and a mechanism to achieve the Governments' High Level Marine Objectives for achieving sustainable development in the marine area. They will help deliver the Government's vision of 'clean, safe, healthy, productive and biologically diverse oceans and seas by guiding licensing decisions for activities in the marine area. Achievement of good status required by the Water Framework Directive, along with Good Environmental Status for Marine Strategy Framework Directive are two stated measures of success for achieving this vision.

Work to develop the Marine Policy Statement and marine planning guidance is underway. The Marine Policy Statement will be published within two years of Royal Assent and marine plans will follow on a phased basis (to be determined). Marine plans will set out in detail how the Marine Policy Statement will apply in specific parts of UK waters, and guide licensing decisions for activities in the marine area (marine plans will apply up to Mean High water spring). The new Marine Management Organisation will be responsible for producing marine plans and issuing licences in English inshore and English offshore areas. Welsh Ministers will be responsible for marine planning and for most marine licensing in the Welsh inshore region. They will also be responsible for marine planning in the Welsh offshore region. The Marine Management Organisation will issue licences in the Welsh offshore region.

Links to other plans and policies

The Marine Policy Statement will be consistent with the new National Policy Statements for nationally significant infrastructure projects that the Infrastructure Planning Commission will licence.

There will be overlaps at the coast between marine plans and other planning regimes, including terrestrial plans, Shoreline Management Plans and River Basin Management Plans. In 2008 Defra published "A strategy for promoting an integrated approach to the management of coastal areas in England" that recognises progress made to date with joining up management at the coast and sets the direction for future work.

Development of marine plans will involve producing a Statement of Public Participation and a large amount of consultation. Marine plans covering transitional and coastal waters will play an important role in supporting achievement of River Basin Management Plans through setting out what activities may or may not be permitted in particular areas. It will be important to ensure that the aims of River Basin Management Plans and Shoreline Management Plans are complemented by marine plans, particularly as the cycles for each planning regime are not aligned.

The Environment Agency are working closely with Defra, Welsh Assembly Government and others to ensure that development of the Marine Policy Statement and marine planning guidance is consistent with, and supports delivery of River Basin Management Plan measures to achieve good water status. The Environment Agency has also undertaken partnership projects with Natural England, the Countryside Council for Wales and the National Trust to investigate what marine planning at the coast and across administrative borders will mean for all of our organisations. As marine plans are developed and implemented the Environment Agency will work closely with the Marine Management Organisation, Welsh Assembly Government and other coastal interests to ensure there is compatibility with River Basin Management Plans and Shoreline Management Plans.

J.7 Other processes

Other key national planning and management processes that are currently and/or need to be further aligned, which are not discussed further here, include:

- Water quality;
- Water resources;
- Natural heritage (conservation and biodiversity);
- Fisheries;
- Navigation and recreation;
- Transport planning and management;
- Energy;
- Industry (e.g. Integrated Pollution Prevention and Control (IPPC)).

Addendum 1 (to this annex) identifies some of the specific policies, processes and plans for the processes identified in J.2-J.7.

J.8 Local processes

There are numerous specific initiatives which have a significant effect on the water environment which are not guided or constrained by national policies, frameworks or a strategic governing body. Some of these were identified in the “River Basin Planning: Working together” consultation documents published in 2007. These cannot be directly aligned through national policies in the first instance. Rather, they need to be influenced locally to ensure they align (if they are not aligned already) to help deliver sustainable water outcomes. This could include the initiatives of regional development authorities, local environment groups, local waterways groups, farming groups, broad and fenland management groups and land owners.

Here we identify some of the more significant local initiatives in the Northumbria River Basin District.

The Northumbria Basin contains most of the North Pennines Orefield, where Lead, Zinc and other metals were mined. This has left a mixed legacy. The industrial heritage is a tourist attraction and there are rare habitats for metal tolerant flora and fauna. There are, at the same time, some negative impacts on the local habitats and river life due higher than normal concentrations of metals. The Environment Agency has started to engage with other interested organisations and local communities to see if we can agree what sustainable improvements to this unique environment will look like. This will ensure we get the right balance between protecting the unique environment for habitat, wildlife, resource protection and heritage whilst also recognising the economic and aesthetic needs of the local community.

To give a flavour to where some of this work can go we also have metal minewater discharging into Saltburn Gill. A local group has formed with the aim of cleaning up this discharge and thus improving their local river. This gives us a great opportunity to help them get funding for a treatment plant, as it is their community and they have already engaged with and got agreement from all the relevant parties.

The Tyne River Trust, National Trust and other local organisations are trying to eradicate Himalayan Balsam, an alien species, from the River Tyne. This is a long term programme involving local volunteers to take part in physically removing the plants, year after year. This plant takes over from native species by growing quickly and smothering them. This has a major impact on the river life. When the plants die back in winter, the bare soil is totally

exposed to erosion, which in turn causes blinding of gravel beds and impacts on fish spawning.

J.9 Summary

Alignment of policies, planning processes and initiatives related to water management was a key driver for the development of the Water Framework Directive. This was seen as essential to the effective and efficient delivery of sustainable water management.

Some processes are already reasonably well aligned in terms of intent (e.g. water quality). Others have made significant progress in terms of taking on board the need to protect the water environment as a valuable asset (flood risk and coastal erosion risk management). Others have made steps in the right direction (development planning and rural land management in Wales) while others need to change quite significantly (e.g. rural land management in England). A significant effort is required by all involved and interested parties in ongoing River Basin Management to review and if possible amend existing policies, plans and measures. In many cases this will require influencing European developments and amending them where necessary, to meet Water Framework Directive objectives. This includes those for which the Environment Agency is responsible, and some which are the responsibility of other organisations.

Ministerial guidance to the Environment Agency¹⁷ has made it clear that a large part of river basin management should involve reviewing and aligning the wide range of existing policies, plans and measures to meet Water Framework Directive objectives. The Environment Agency will drive this agenda forward both internally and externally. We have already reviewed a large number of internal and external processes to look at commonality in objectives and processes. We will be working with key stakeholders to propose and guide this alignment where we can at European, England and Wales and local levels through policy development to implementation “on the ground”.

¹⁷ River Basin Planning Guidance. Department for Environment, Food and Rural Affairs & Welsh Assembly Government. 2006
Environment Agency River Basin Management Plan, Northumbria River Basin District
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Addendum J1: Specific policies, processes, plans which may require alignment to river basin management.

Adapted from “Consistent Economic Appraisal Approaches with Respect to the Water Framework Directive River Basin Management Plans. Collaborative Research Programme on Water Framework Directive economics final report. Jan 2006. For the Welsh Assembly Government and Water Framework Directive Collaborative Research Programme by Jacobs in association with ADAS”

Sector	Policy, programme, process or plan	Main aim (of relevance to river basin management)	Lead England and Wales organisation	Key partner organisations
Agriculture	Common Agricultural Policy	Framework for financial support of agriculture: food and fuel production; agricultural economy; rural development	Defra / Welsh Assembly Government	Rural Payments Agency (RPA), Natural England, Rural Inspectorate Wales, Environment Agency, Farming Unions
	Cross Compliance – Good Agricultural and environmental Conditions, Perm Pasture, Soil Protection Review and Statutory Management Requirements	Avoidance of pollution, soil erosion, environmental damage	Defra / Welsh Assembly Government	Rural Payments Agency, Rural Inspectorate Wales Natural England, Countryside Council for Wales, Environment Agency
	England Catchment Sensitive Farming Delivery Initiative	Reduce diffuse water pollution	Defra	Environment Agency, Natural England
	Environment Agency Wales catchment coordinators initiative	Provide and co-ordinate advice to land managers that will allow them to improve environmental performance. Integrating diffuse pollution mitigation with habitat creation, flood risk management and fisheries issues	Environment Agency	Farming Unions, land managers
	The EU Structural Fund programmes Objectives 1 and 2	Major EU funding mechanism for supporting social and economic restructuring across the EU.	Defra / Welsh Assembly Government	Government Offices, Regional Development Agencies
	Nitrate Vulnerable Zones and Nitrate Action Programme	To reduce nitrate pollution from agriculture	Defra / Welsh Assembly Government	Environment Agency

Agriculture	Rural Development Programme / Plan	Framework for operation of integrated schemes to protect and improve rural environmental, social and economic development	Defra / Welsh Assembly Government	Natural England, Countryside Council for Wales, Farming Unions and Regional Development Agencies
	Wales Environment Strategy	To reduce pollution, including diffuse pollution from soil erosion	Welsh Assembly Government	Environment Agency, Countryside Council for Wales, Forestry Commission Wales
	Soil Strategy for England	To reduce pollution, including diffuse pollution through soil erosion	Defra	Environment Agency, Natural England
	Agri-environment schemes England	Protect and enhance biodiversity, protect and enhance natural resources, protect historic environment	Defra	Natural England, Farming Unions, Royal Society for Protection of Birds, Environmental NGOs
	Agri- environment schemes Wales. Tir Gofal Tir Cynnal Organic Farming / organic entry level Tir Mynydd The above schemes will all cease in 2012 to be replaced by the new Glastir land management scheme (for all new entrants).	Protect and enhance biodiversity, protect and enhance natural resources, protect historic environment The new Glastir land management scheme will also deliver on the EU CAP Health Check Challenge Agenda for soil carbon and improved water quality and quantity management	Welsh Assembly Government	Environment Agency, Countryside Council for Wales, Farming Unions, Royal Society for Protection of Birds, Environmental NGOs Organic Centre Wales
	Energy Crops Scheme (Short Rotation Coppice)	Reduce greenhouse gas emissions	Defra / Welsh Assembly Government	
	Organic Farming Scheme	Increase area of organic farming	Defra	Organic certification bodies,
	Environmentally Sensitive Areas Scheme (ESAS)	Landscape preservation	Defra / Welsh Assembly Government	

Agriculture	Woodland Grant Scheme (WGS) / English Woodland Grant Scheme (EWGS)	Encourage establishment of areas of woodland on farms which can be positioned to reduce diffuse pollution	Forestry Commission	Natural England, Countryside Council for Wales, Environment Agency
	Farm Woodland Premium Scheme (FWPS)	N/A	Defra	Forestry Commission
	Integrated Regulation of Agriculture (IRAP).	Targeted effort and inspections to areas and activities that pose the greatest environmental risk.	Environment Agency	
	Sustainable Farming and Food Strategy	Published in December 2002, sets out how industry, Government and consumers can work together to secure a sustainable future for our farming and food industries, as viable industries contributing to a better environment and healthy and prosperous communities	Defra	
	Farming Food and Countryside- Building a Secure Future Strategy/ Farming for the Future	Welsh Assembly Government's strategy aimed at helping secure a viable future for farming in Wales - sustainable economically, environmentally and socially	Welsh Assembly Government	Farming Unions, Environment Agency, Countryside Council for Wales, Royal Society for Protection of Birds
	The Defra Whole Farm Approach project	One of several initiatives that see a long term integration in delivering Defra's Sustainable Farming and Food Strategy. Developed as an electronic only system, it uses a questionnaire system intended to make form filling easier and provides convenient links to best practice advice and guidance.	Defra	Farming industry, the wider Defra network (including Environment Agency, Rural Payments Agency) and other regulators including Food Standards Agency and the Health and Safety Executive.
Water resources and quality	Future water	Defra water strategy for England	Defra	
	Periodic Review Process (PRP)	Process to agree set of management and investment plans plus associated water tariffs over a 5 year period.	Ofwat (the Water Services Regulatory Authority)	Environment Agency, Water Companies
	Asset Management Plans (AMP) (incl. Drainage Area	Forms part of the Periodic Review Process and this looks at quality	Water Companies	Ofwat (the Water Services Regulatory

Water resources and quality	Plans) and Water Cycle Strategies (WCS)	improvements required and the most cost effective way of achieving these. They also identify additional price rises required to deliver the plans recommendations. Water Cycle Strategies provide plan, programme and costs of Water Services Infrastructure implementation for major developments.		Authority), Environment Agency, English Nature, Countryside Council for Wales, Defra, Drinking Water Inspectorate, Welsh Assembly Government
	Water Company water resource management plans	Plan which specifically outlines the balance between water supply and demand in a socially/ environmentally acceptable way (including efficiency of use). Used to inform the periodic review of prices	Water companies	Defra and Welsh Assembly Government (receive plans). Environment Agency - review of social and environmental aspects; Ofwat (the Water Services Regulatory Authority)-economic issues
	Water Resources Strategies	A broad strategy for a region for 15-20 years covering water resources In Wales, the current strategy is to 2050 and beyond.	Environment Agency	Stakeholders
	Restoring Sustainable Abstraction (RSA) Programme (Environment Agency) incl. Low flow alleviation plans/ programmes and Abstraction licence review/consenting process	Catalogues wetlands and rivers that may be at risk from abstraction (as identified by Catchment Abstraction Management Strategies). Programme of investigations, appraisal of options and implementation of solutions where abstraction identified as an impact.	Environment Agency	Abstraction licence holders
	Water Company and Environment Agency Drought Contingency Plans	Operational management tool to look at water shortage scenarios	Water companies, Environment Agency	Defra/Welsh Assembly Government (receive plans) Environment Agency -review drought plans
	Catchment Abstraction Management Strategies (CAMS)	Identifies discrete licences that may be impacting upon the environment to guide management of abstraction licences.	Environment Agency	Abstraction Licence Holders e.g. Water Companies, CBI,

Water resources and quality				National Farmers Union etc Local Authorities, Environmental Groups
	Groundwater protection policy (Groundwater regulations)	Risk based policy. Water Framework Directive has three elements related to Groundwater: classification of status; identification of pollution trends in Groundwater; prevention of input of pollutants to GW. The details of these elements are expected to be in the Groundwater Directive.	Environment Agency	Environmental Groups, and Industries
	Eutrophication Control Action Plan	Local plans - pilot exercise assessing eutrophication and identifying measures to tackle problems	Environment Agency	Local Key Stakeholder
	Chemical strategy pollution reduction plans	Tackle issue at a substance level and are not location based. Water, air, land - all mediums considered.	Environment Agency	Defra own Existing Substances Regulations
	Endocrine disrupting substances in the Environment strategy	A consultation exercise urging companies to take precautionary measures to protect the environment from endocrine disrupting chemicals.	Environment Agency	
Flood Risk Management	Shoreline Management Plans	Shoreline Management Plans set out strategic guidance designed to assist coastal defence decision making for a defined length of coast over the next 50 years	Environment Agency	Defra and Welsh Assembly Government
	Catchment Flood Management Plans	Plan to identify future measures needed to ensure management of flood risk within river catchments	Environment Agency	Defra and Welsh Assembly Government
	Flood and Coastal Erosion Risk Management Appraisal Guidance – Practitioner’s Guide	This will provides the framework for decision making in Flood and Coastal Erosion Risk Management strategies and schemes.	Environment Agency	Defra, other Flood and Coastal Erosion Risk Management operating authorities
	System Asset Management Plans (SAMPs)	A management plan to address assets and maintenance of assets.	Environment Agency	
	Coastal Habitat Management Plans (CHaMP)	CHaMPs relate to shoreline management of flood defences in relation to the	Defra/ Welsh Assembly	Defra and Welsh Assembly Government

Flood Risk Management		Habitats and Birds Directives in a limited number of locations (pilot sites) on the east and south coast (7 locations). Coastal Squeeze element of Shoreline Management Plans.	Government	
	Drainage Area Planning (surface water)	Carried out by Internal Drainage Boards (IDBs)	Internal Drainage Boards	Overseen by Defra
	Water level management plans	Plan for wetland SSSIs to balance water needs of conservation, flood defence and other needs (e.g. recreation/agric/industry). Requirements of other organisations or other parts of Environment Agency. Conservation is the main objective and give operational requirements to other parties	Environment Agency/Internal Drainage Boards	
	Surface water management plans	Framework through which key local partners with responsibility for surface water and drainage in their area work together.	Local authorities	Environment Agency
	Regional habitat creation programmes	A strategic approach to habitat re-creation for projects and as compensation for coastal squeeze caused by sea-level rise. Co-ordinates achievement of Defra Outcome Measures 4 and 5 and corporate Biodiversity targets.	Environment Agency	Land owners
	Managed realignment plans	Habitat creation programmes		
Development and Land use	National Policy Statements	National Policy Statements will set out the justification for major infrastructure projects and provide guidance on how to implement them. National Policy Statements will be subject to an 'appraisal of sustainability' where they give location information for projects. National Policy Statements will be prepared by the government department responsible for that type of project.	Welsh Assembly Government, Communities and local Government /Infrastructure Planning Commission	
	England Rural Development	Funded by the European Commission and	Communities and	Forestry Commission,

Development and Land use	Programme	the Department for Environment, Food and Rural Affairs (Defra). The majority of programme funds are allocated to improving the environment through Environmental Stewardship - administered by Natural England and the English Woodland Grant Scheme - administered by the Forestry Commission.	local Government	Natural England
	Wales Rural Development Plan	Joint Welsh Assembly Government/European Union (EU) strategy to improve Welsh environment and encourage sustainable economic development.	Welsh Assembly Government	
	Planning Policy Statements (England)	Planning Policy Statements explain statutory provisions and provide guidance to local authorities and others on planning policy and the operation of the planning system.	Communities and local Government	
	Regional spatial strategies (RSS) England , the Wales Spatial Plan and the London Plan	With the objective to contribute to the achievement of sustainable development, the RSS, incorporating a Regional Transport Strategy (RTS), provides a broad development strategy for the region for a fifteen to twenty year period. It covers housing, environment, transport, waste, minerals issues and informs other more local spatial plans	Regional planning bodies	Government Office
	Local Development Frameworks (LDFs) including Local Development Documents (LDD) England	A Local Development Framework is a suite of documents that sets out how the local area may change over the next 10-15 years. Will also cover issues of waste and minerals for relevant authorities. Local Development Framerworks must be in general conformity with RSS	District and Borough Authorities and Unitary Authorities	Government Office
	Waste and mineral development frameworks	Cover issues of waste and minerals for relevant authorities.	Counties (in two-tier areas) and unitary authorities	

Development and Land use	Planning Policy Wales	<p>Current land use planning policy is contained in 'Planning Policy Wales' (March 2002) which provides the strategic policy framework for the effective preparation of local planning authorities' development plans.</p> <p>'Planning Policy Wales', the Technical Advice Notes (TANs) and the circulars, may be material to decisions on individual planning applications and will be taken into account by the National Assembly for Wales and Planning Inspectors in the determination of called-in planning applications and appeals.</p>	Welsh Assembly Government	
	Technical Advice Notes (TANS) (Wales)	Planning policy Wales is supplemented by 20 topic based Technical Advice Notes (Wales) (TANS) which provide procedural guidance on interpreting the policy and operation of the planning system in Wales.	Welsh Assembly Government	
	Local Development Plans (Wales)	Local Development Plans should provide for an adequate and continuous supply of land to meet society's needs in a way that is consistent with overall sustainability principles and objectives. In doing this these plans must set out an authority's objectives for the development and use of land in its administrative area and general policies to implement them.	Local Authorities	Welsh Assembly Government

Development and Land use	England Sustainable Communities Strategy	Prepared by local strategic partnerships as a set of goals and actions which they, in representing the residential, business, statutory and voluntary interests of a local area, wish to promote. The community strategy should inform the local development framework and act as an umbrella for all other strategies devised for the local area and promote or improve the economic, social and environmental well-being of their areas, and contributing to the achievement of sustainable development in the UK	Local Authorities	Dept. for Communities and Local Government
	Port Development Plans	Business plans for port development which usually consider environmental issues	Port Authorities	
Natural Heritage	Habitats Directive Assessment of plans and projects	All proposals affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) must be assessed to show no adverse effect on site integrity. There is also a requirement to review some types of plans and projects that existed before the implementation of the Habitats Directive to assess their implication on the sites conservation objectives.	Natural England Countryside Council for Wales	All competent authorities are responsible for assessing plans and projects

Natural Heritage	Special Sites of Scientific interest (SSSIs) improvement programme	<p>In England there is a Public Service Agreement (PSA) target to have 95 per cent of the SSSI area in favorable or recovering condition by 2010. The SSSI remedies programme identifies the organisation that has prime responsibility for resolving or 'remedying' the reason for unfavourable condition on each SSSI unit. Financial incentives are available to support some of the work, these are usual tied into a contractual management agreement between Natural England and the landowner/occupier.</p> <p>Wales Environment Strategy (WES) Outcome 21 aims to restore 95 per cent of international sites by 2010, 95 per cent of SSSIs by 2015, and all sites by 2026</p>	<p>PSA target is led by Defra and its delivery is co-ordinated by Natural England.</p> <p>WES is led by Welsh Assembly Government</p>	Organisations responsible for resolving the reason for unfavourable condition on each SSSI unit. e.g. individual site owners, central and local government, private companies, non government organisations. Delivery is co-ordinated by the Countryside Council for Wales.
	England River Basin Biodiversity Framework	Summary and Geographic Information System (GIS) presentation of water-related biodiversity targets and assets in each river basin, for inclusion in WFD River Basin Management Plans where appropriate.	Environment Agency and Natural England	Royal Society for the Protection of Birds, Wildlife Trusts, Defra

Natural Heritage	UK Biodiversity Action Plan	UK Biodiversity Action Plan is a plan for dealing with biodiversity conservation in response to the Convention on Biological Diversity 1992 which called for the creation and enforcement of national strategies and action plans to conserve, protect and enhance biological diversity.	UK Biodiversity Partnership	UK Biodiversity Partnership comprises a wide range of people from those who provide funds, amateur and professional experts to those who are interested in the wildlife and natural They are private individuals, business, government and non government representative Environment Agency lead on action plans for many freshwater habitats and species.
	Local Biodiversity Action Plans (LBAPs)	Action plans to safeguard biodiversity features. Each Local Biodiversity Action Plan works on the basis of partnership to identify local priorities and to determine the contribution they can make to the delivery of the national Species and Habitat Action Plan targets	Local Biodiversity Action Plan Partnerships	Natural England, Local Authorities, Environment Agency, Countryside Council for Wales
	Site management plans for Natura 2000 sites	The designation of a site under the 'Birds' or 'Habitat' Directives will often lead to the production of a management plan for the site in question.	Natural England, Countryside Council for Wales	Site owners and managers
	Wetland Vision for England	Wetland Vision is a partnership project which describes how the partners would like England's wetland landscapes to be in 50-years time.	Wetland Vision Partnership	English Heritage, Environment Agency, Royal Society for the Protection of Birds, Natural England, Wildlife Trusts
	The Invasive Non Native Species Framework Strategy for Great Britain.	This is a co-ordinated plan to reduce the threat to Britain's native biodiversity from invasive non-native species	Defra Welsh Assembly Government	

Natural Heritage		<p>To help prevent introductions in the first place by raising awareness of the risks and increasing understanding of the impacts; to better enable early detection and rapid response to introductions before they become major problems; and, to develop longer-term control programmes based on sound science.</p> <p>The GB Strategy also contains measures to improve the effectiveness of legislation, to improve integration of activities and programmes and to better focus research effort.</p>	The Scottish Government	
Transitional and coastal	Marine Protected Area strategy (draft)	Delivering an ecologically coherent network of Marine Conservation and Zones and European Marine Sites by 2012.	Defra / Welsh Assembly Government	Joint Nature Conservancy Council (JNCC), Natural England, Countryside Council for Wales
	Marine Policy Statement (MPS) and marine planning	Will be introduced through Marine and Coastal Access Bill and set strategic framework for management and protection of the marine environment in England and Wales. Marine licensing decisions for development activities will have to conform with marine plans which will overlap with RBMPs in estuaries and coastal waters.	Defra/ Welsh Assembly Government	Environment Agency, Local Authorities

<p>Transitional and coastal</p>	<p>Integrated Coastal Zone Management (ICZM)</p>	<p>ICZM is a management approach not a plan. The purpose of ICZM is to bring stakeholders together with a common interest often to resolve conflict. In 2007, the Welsh Assembly Government produced Making the Most of Wales' Coast - the Integrated Coastal Zone Management Strategy for Wales. The document provides an overview for the development of actions that will bring together the coastal policies and activities in Wales. In 2008 Defra published "A strategy for promoting an integrated approach to the management of coastal areas in England" that recognises progress made to date with joining up management at the coast and sets the direction for future work.</p>	<p>Defra / Welsh Assembly Government</p>	<p>All groups with regulatory, management, commercial, recreational or other interests at the coast</p>
<p>Fisheries</p>	<p>Common Fisheries Policy</p>	<p>Sustainable fisheries management driven through the ecosystem approach.</p>	<p>EU UK delivery through Defra and devolved administrations</p>	<p>Marine and Fisheries Agency/Sea Fisheries Committees/ Environment Agency, Welsh Assembly Government</p>
	<p>Freshwater Fish Directive Designations</p>	<p>Statutory water quality protection for designated cyprinid and salmonid fisheries.</p>	<p>EU England and Wales delivery through Environment Agency</p>	<p>Water Utilities.</p>
	<p>Fisheries Action Plans</p>	<p>Consultative processes to develop wide stakeholder engagement in freshwater fisheries management</p>	<p>Environment Agency</p>	<p>Angling organisations</p>
	<p>Salmon Action Plan</p>	<p>Catchment based strategic plans to deliver sustainable salmon management</p>	<p>Environment Agency</p>	<p>NASCO, Salmon and Trout Association and many others</p>

Fisheries	National Trout and Grayling Strategy	National Strategy to deliver sustainable species management	Environment Agency	Salmon and Trout Association, Grayling Society.
	Eel Management Plan	National strategy to deliver sustainable species management within the European Environment Agency context.	Environment Agency	
	Fisheries Strategy	National Strategy to provide an overview for the functional plan and related plans and policies.	Environment Agency	National Angling Bodies
Forestry	Forest Strategy	The Strategy was prepared in 1997-98 and provides a vision for forestry for the medium to long term (i.e. 20-50 years). It was prepared before the WFD was implemented in the UK.	Defra	Forestry Commission
	Regional Forestry Frameworks	Charts a route to help develop a vibrant sector to maintain and enhance the tree, woodland and forestry assets that can bring social, environmental and economic benefits to a region	Forestry Commission	
	The Strategy for England's Trees, Woods and Forests	Shows how we can meet the opportunities and challenges of making trees and woodlands productive, healthy and attractive	Defra	
	The Woodlands for Wales Strategy.	Establishes the role that woodlands sustaining the wider environment and in providing opportunities for people and communities in Wales and establishes importance of woodland management	Welsh Assembly Government	Forestry Commission Wales
	'Forests and Water Guidelines'	Provide the basis for sustainable management of the water environment by forest planners and managers	Forestry Commission	Forestry Commission, Forest Research, Environment Agency, Scottish Environment Protection Agency, Joint Nature Conservation Committee, Forest Service (Northern Ireland)

Industry/ chemicals	Integrated Pollution Prevention and Control (IPPC) permits	To ensure industrial installations have minimal environmental impacts and emissions are regulated	Environment Agency	
Transport	Transport Strategy	A vision for transport development in the medium to long term.	Dept. for Transport	
	The Wales Transport Strategy	Sets out the steps to achieve delivery of sustainable transport networks	Welsh Assembly Government	Local Authorities
	Regional Transport Strategies	These are part of Regional Spatial Strategies	Dept. for Transport	Environment Agency
	Local Transport Plans	Local Authority driven plans that take account of Regional and National transport plans	Dept. for Transport	Local Authorities
	Individual Transport Schemes	Scheme over £5M that require funding from Dept. for Transport.	Dept. for Transport	Developer
Recreation and Navigation	British Waterways Strategy	Management of 2,000 miles of canals and rivers in England, Wales and Scotland.	British Waterways	Defra and Welsh Assembly Government
	'A better place to Play' Environment Agency strategy for water-related sport and recreation.	Strategy to plan and promote water-related sport and recreation to achieve the maximum economic, social and environmental benefits.	Environment Agency	
	Action plan for navigation		Environment Agency	
	Waterways for tomorrow	For inland waterways to see an improving quality of infrastructure; a better experience for users through more co-operation between navigation authorities; and increased opportunities for all through sustainable development.	Defra	

Recreation and Navigation	National Parks Management Plans	Overarching strategic document and central to the future of the National Park to: show co-ordination and integration with other plans,, strategies and actions in the National Park where they affect the National Park purposes and duty; indicates how the National Park purposes and associated duty will be delivered through sustainable development; sets the framework for all activity pursued in the National Park by stakeholders.	National Parks	
	Waterways development plans, strategies, frameworks	Various documents associated with waterways regeneration and management	Various	
	Bank protection policies	Policies to give sufficient structural strength to the bank, to protect the bank from erosion (both on the waterline and from the user on the path) and to prevent leaks.		
	Green-blue initiative	The 'Green Blue' initiative gives examples of good environmental practice for boaters.	British Marine Federation and the Royal Yachting Association.	Environment Agency, Scottish Environment Protection Agency, Scottish Natural Heritage, Welsh Assembly Government, Crown Estate, Countryside Council for Wales