



Water for life and livelihoods

River Basin Management Plan
South East 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 states 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's 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 spatial, including:

- urban and rural land use planning;
- flood and coastal erosion risk management; and
- marine planning.

The annex identifies both national generic processes as well as more targeted local work. Alignment, in some respects, represents 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, aims (Article 1) and objectives (Articles 4 & 7) of the Water Framework Directive.

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 (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.

In the Regulations implementing the Water Framework Directive in England and Wales², there is a general legal duty on all public bodies, in exercising their functions, so far as they affect 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

¹ River Basin Planning Guidance. Department for Environment, Food and Rural Affairs & Welsh Assembly Government. 2006

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

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 the 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 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).

This annex addresses almost unanimous stakeholder support⁵ for the principle of better alignment and where possible integration of relevant planning 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.

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

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

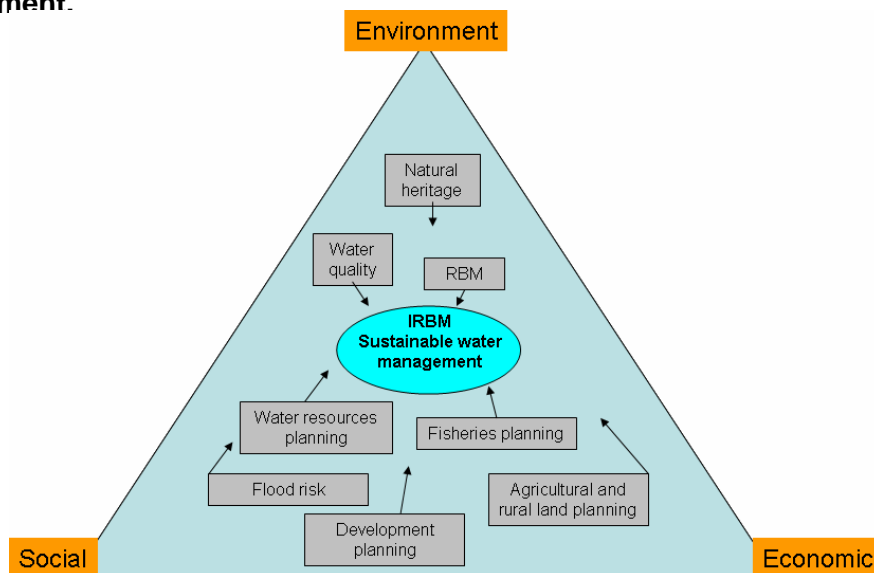
Opportunities for alignment

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.

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, social and economic.

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



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

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)

⁷Consistent 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

J.2 Building, town and 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 therefore 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', 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 Strategy⁸ and the Welsh Assembly Government's Sustainable Development Scheme for Wales⁹. The planning and management of development must therefore protect and improve the environment, respect 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, Regional Assemblies, the Greater London Authority, National Parks Authorities and the Broads Authority constitute Planning Authorities in England. 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. Local Development Frameworks produced by Local Authorities identify locations for certain types of developments, including a 5 year supply of housing sites to meet their housing targets and policies to manage certain aspects of their form, location and phasing of development.

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

⁸ Securing the future- delivering the UK sustainable development strategy. Defra March 2005.

⁹ <http://wales.gov.uk/topics/sustainabledevelopment/publications/onewalesoneplanet/?lang=en>

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 regimes¹⁰.

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 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 management of development to ensure we get the right type and quality of development, in the right place and at the right time. The planning system can therefore 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 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 at a project level can help 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.

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

¹⁰ 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.

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 of 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 Building Research Establishment Environmental Assessment Methodology (BREEAM) including 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 recreation (e.g. boating, fishing). loss and fragmentation of habitats and green space 	<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 by locating development sites outside of flood risk areas, controlling the rate and impact of 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 infrastructure contributes to the delivery of sustainable water management and can help mitigate the effects of new development.

Water Framework Directive pressure	Contribution of growth and development to pressure	What spatial planning may be able to do address this
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- soil sealing (extensions, drives, patios)

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 we expect only a limited number of these situations. Other mechanisms will be required to manage this impact¹¹. 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 this¹².

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.

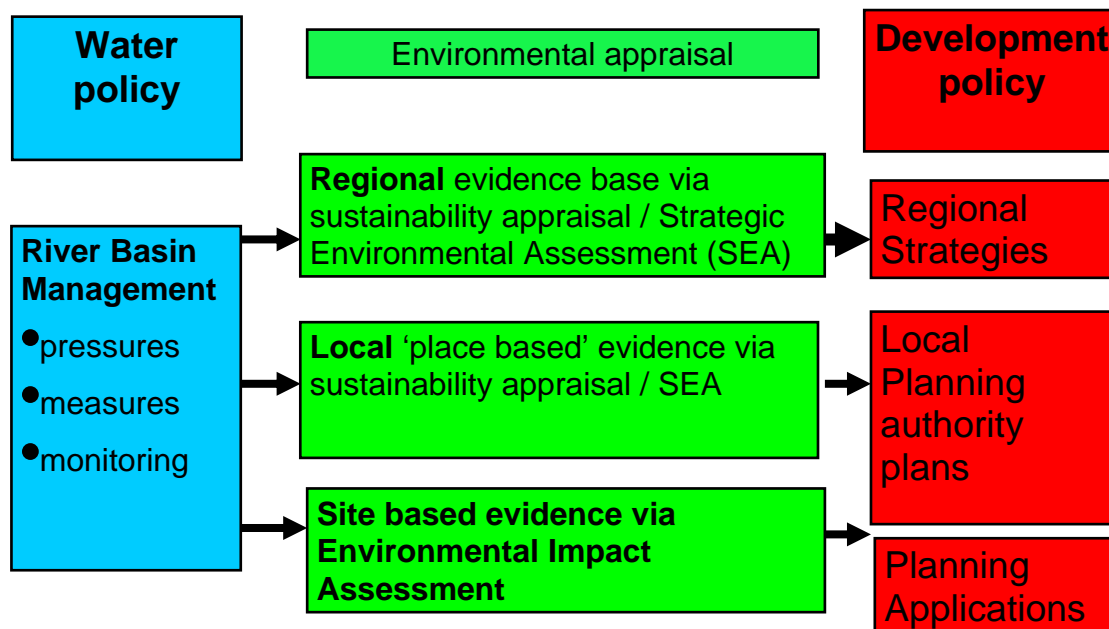
There are three main areas in which spatial and river basin management can be better aligned. These are set out below.

Providing evidence support to the spatial planning system through river basin management

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 way to ensure this happens is to ensure the analysis done for river basin management feeds into the appraisal process required for all plans and the consideration of individual planning applications (see below).

¹¹ See ‘Future Water: The Governments water strategy for England’. HM Government. Feb 2008

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 a 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 provides 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 Documents 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

Timescales for the production and review of regional spatial strategies and local development frameworks do not align with the publication of the first River Basin Management Plans.

There is much variation on the production and adoption of spatial planning documents. 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 from 2010 onwards, the spatial planning system will have to consider how to 'have regard to the River Basin Management Plans' and how much weight to give it in the decision making process.

South East River Basin District alignment of building, town and country planning and regeneration to the Water Framework Directive

Here we identify some specific examples of how building, town and country and regeneration planning has been aligned with the Water Framework Directive in the South East River Basin District.

At a regional spatial strategy level the Environment Agency has influenced the South East Plan to include strong policies that incorporate Water Framework Directive aims and objectives.

These are:

- Policy NRM1: Sustainable Water Resources and Groundwater Quality;
- Policy NRM2: Water Quality;
- Policy NRM8: Coastal Management.

At a local spatial plan level we held a series of workshops in October 2007, January 2008 and April and May 2009 for Local Authority planners in the river basin district. These workshops were designed to inform and influence planners to help ensure that they consider how planning policy making and development management decisions can contribute to achieving Water Framework Directive objectives. Further information about how we have consulted and involved others is set out in Annex L: Record of consultation and engagement.

We also have a number of examples where the Water Framework Directive has been used to influence the decision making process in our response to local development frameworks across the river basin district.

We have signposted Local Authorities to the requirements of the Water Framework Directive to achieve 'good ecological status' or 'good ecological potential' by 2015 and highlighted concerns relating to environmental capacity of receiving waterbodies, for example, where increases in sewage effluent would detrimentally impact water quality. Working closely with Hastings Borough Council and Wealdon District Council, we have guided their decisions about the distribution of development so as to meet Water Framework Directive objectives.

J.3 Rural planning and agriculture

Introduction

Agriculture has been the focus of new policy development and programmes, because of its importance to water quality and water resources.

The current planning process for rural areas in England

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, changing their environmental impact. 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 can create a very strong motivation for improving 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

Delivery of Water Framework Directive objectives will rely heavily on 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 better 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 and provide a consistent message to land managers.

South East River Basin District alignment of agriculture and rural planning to the Water Framework Directive

Within the South East River Basin District there are local advice led partnership projects on rural land management and resource protection, including the South Downs and Harbours Clean Water Partnership. This is a partnership project between Portsmouth Water, Natural England and the Environment Agency, that relies upon the support and co-operation of a number of key representatives from the agriculture sector and related organisations within its steering group.

Since 2006 Catchment Sensitive Farming has been operating in the Test, Itchen, Eastern Rother, Pevensey Levels and Stour catchments to address diffuse pollution from agriculture, and from 2009 three additional areas, the Western Rother and Arun, the Isle of Wight Strategic Partnership and Thanet have been included.

The Common Ground initiative has been developed to improve communication routes with the agricultural advisers and businesses working with and advising farmers in the South East River Basin District. The aim of the initiative is to promote best practice so that the advisers recognise the importance of resource protection and climate change adaptation to farm business sustainability. Common Ground workshops will run on an annual basis within the river basin district.

The Environment Agency and Natural England plan to work together to develop an approach to incorporate water body information into environmental stewardship targeting guidance for the South Downs, and then extend the approach as applicable to other catchments in the South East River Basin District.

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. However the Environment Agency is currently able to comment on a non-statutory basis on license applications submitted to the Forestry Commission and it serves on steering groups involved with Regional Forestry Frameworks.

Operational issues

The Forestry Commission's 'Forests and Water Guidelines', which is currently being revised to take account of the Water Framework Directive, provides guidance to forest planners and managers on the sustainable management of the water environment.

Going forward, the Environment Agency will work closely with forest planners and managers to better understand the impacts of forestry practice and identify the opportunities for meeting Water Framework Directive objectives. This is underpinned by a Memorandum of Understanding between the Environment Agency, Natural England and the Forestry Commission.

South East River Basin District alignment of forestry management to the Water Framework Directive

Within the South East River Basin District the New Forest Life III Project provides an excellent example of a partnership project between the Environment Agency, Forestry Commission, National Trust, Hampshire County Council, Natural England and the Royal Society for the Protection of Birds that has enhanced over 10 kilometres of degraded river and floodplain habitat.

Considering wider impacts of forestry practice, there is an increasing body of evidence that bank side trees can help reduce river temperatures and so help mitigate climate change.

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 draft strategy for Flood and Coastal Erosion Risk Management (FCRM), 'Making Space for Water'¹², outlines an intention to move towards a more holistic approach to FCRM that takes into account all sources of flooding.

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

- reduce the threat to people and their property;
- 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

¹² First Government response to the autumn 2004 Making space for water consultation exercise, March 2005

are already moving the sector towards this way of working and that will help to deliver Water Framework Directive objectives.

Flood and Coastal Erosion Risk Management outcome measures

From 1 April 2008 'Outcome Measures' became the new performance framework to measure the overall benefits of flood and coastal erosion risk management 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 and 5

Outcome Measure	Description
Outcome measure 4. Nationally important wildlife sites	This measure will record, through liaison with Natural England, 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 that took place 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 public¹³.

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.

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

¹³ 'Learning lessons from the 2007 floods', Sir Michael Pitt, June 2008

work together understand the causes of surface water flooding and agree the most cost effective ways of managing that risk.

The Surface Water Management Plans 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 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 Management¹⁴.

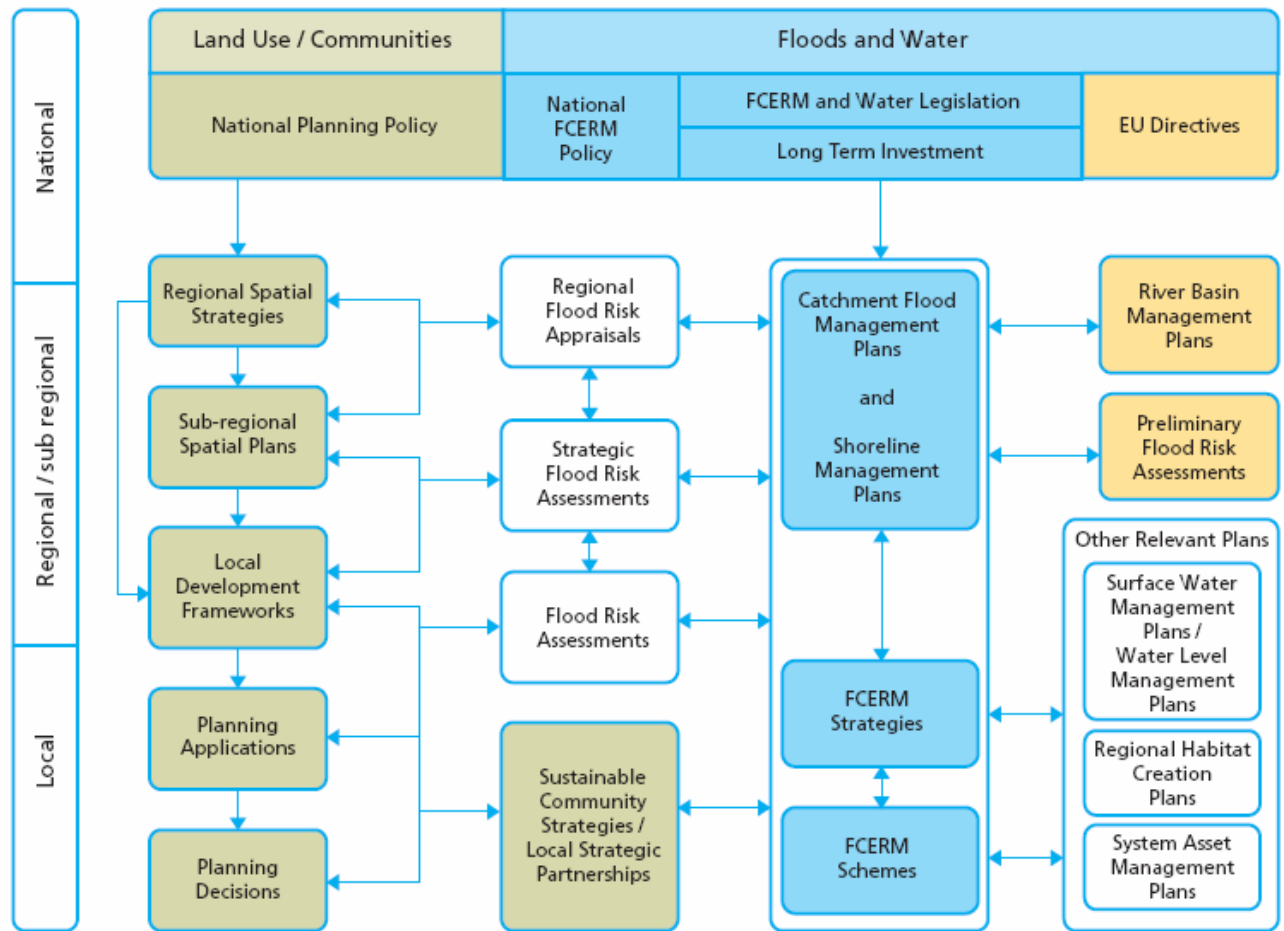
A number of research and development projects are being conducted to support this work including: Defra's FD2609 research project 'Water Framework Directive and Expert Assessment', which will set out appropriate ways of assessing the ecological impact of a FCRM scheme; The 'Mitigation Measures Manual 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).

¹⁴ Appraisal of flood and coastal erosion risk management - A Defra policy statement, June 2009

Figure J3 The flood and coastal erosion risk management planning framework



Shoreline Management Plans

The second generation of Shoreline Management Plans are currently being developed. Guidance has been published that enables these plans to take account of Water Framework Directive objectives¹⁵. 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 FCERM planning process.

Catchment Flood Management Plans

The Environment Agency recently developed Catchment Flood Management Plans (CFMPs) that 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 in table J3. A river basin district specific analysis of the distribution of these policies is found in table J4.

¹⁵ Assessing shoreline management plans against the requirements of the Water Framework Directive, April 2009

Table J3 **Catchment Flood Management Plans 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.

South East River Basin District activity on alignment of flood risk and coastal erosion risk management for Water Framework Directive

Catchment Flood Management Plans

The Environment Agency has analysed the distribution of CFMP policies in each catchment of the South East River Basin District to see where these opportunities and constraints are. The results are found below in table J4.

Table J4 **Distribution of Catchment Flood Management Plan policies in South East River Basin District**

South East River Basin District Catchment Name	Number of water bodies	Policy 1	Policy 2	Policy 3	Policy 4	Policy 5	Policy 6
Adur & Ouse	50	2%	16%	0%	8%	18%	80%
Arun & Western Streams	57	2%	0%	12%	25%	14%	60%
Cuckmere & Pevensy Levels	24	0%	0%	13%	33%	0%	75%
East Hampshire	28	0%	0%	21%	64%	11%	29%
Isle of Wight	35	0%	43%	0%	40%	0%	17%
New Forest	30	0%	0%	0%	37%	0%	80%
Rother	36	0%	0%	31%	8%	0%	75%
Stour	24	21%	0%	13%	50%	13%	42%
Test & Itchen	52	0%	17%	48%	17%	21%	10%
South East River Basin District	336	2%	10%	16%	28%	10%	51%

The figure represents the proportion of water bodies in each catchment of the river basin district that could be affected by each generic CFMP policy. In other words, where 20 per cent or more of the water body is located within a policy type. Please note that these are Water Framework Directive management catchments rather than CFMP catchments.

Policies were assigned to geographically defined sub-areas within the larger catchments using multi-criteria analysis. These are mapped in figure J.5.

In Policy 3 areas flood risk and levels of investment are about right. We will either continue with our existing actions or adopt more sustainable practices to maintain flood risk management activity into the future. A third of our region is covered by Policy 6, where we will encourage the natural use of the floodplain to reduce flood risk. These locations offer opportunities for wider benefits, such as habitat creation (including Biodiversity Action Plan and Water Framework Directive contributions), fisheries, biodiversity, amenity, recreation and navigation. By holding more water (increasing flooding) on the floodplain we can reduce flood risk in downstream urban areas, ensuring better protection to people and property. This fits in with Defra's Making Space for Water Strategy and through the implementation of this we can make investment savings by adopting a sustainable, catchment-wide approach to flood risk management.

In the areas assigned to Policy 5 the Environment Agency aims to reduce flood risk by prioritising our investment in these locations. The resulting actions will usually be carried out over the next 5 years, but may require longer-term investment.

The Environment Agency cannot reduce flood risk on its own. A range of partners need to work together to improve the co-ordination of flood risk activities and agree the most effective way to management flood risk in the future. The partners the Environment Agency has worked with to carry out the actions to reduce flood risk include: Local Authorities, Defra, Natural England, Water Companies, National Farmers Union and Local Wildlife Trusts.

Figure J.5 Catchment Flood Management Plan policy units



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Regional Habitat Creation Programme

Southern Region has a Habitat Creation Programme which is delivered in partnership with our coastal Local Authorities and is supported by Natural England. This programme collates habitat requirements across the region, and provides a programme of work to deliver these. The majority of the requirements result from coastal squeeze at Natura 2000 sites.

The programme promotes strategic opportunities for providing compensatory habitat to allow flood and coastal risk management activities of both the Environment Agency and the Local Authorities. The programme will also create habitat to help us meet national Biodiversity Action Plan targets and the Defra Public Service Agreement target for condition of Sites of Special Scientific Interest.

Several projects are at an early stage of development including Medmerry (West Sussex) which is a managed realignment project to provide an increased level of protection from flooding from the sea. In addition, this realignment will provide up to 300ha of intertidal habitat that will allow flood and coastal risk management projects elsewhere in the Solent to progress.

Medium Term Plan

The Medium Term Plan documents the Environment Agency’s short term priority actions for the next three years. All strategies, studies and projects that have the relevant financial commitment are detailed. Recently, the Environment Agency’s Strategic and Development Planning team have been working with the Asset Investment Planning team to identify opportunities within

existing works that satisfy the requirements of the Water Framework Directive and River Basin Management Plans.

National Indicators

One of the overall aims of Water Framework Directive is reducing the effects of floods. The Environment Agency is 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 the Environment Agency will be 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'. Achievement of no-deterioration and 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 (i.e. before the end of 2011) 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.

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 license.

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 supported

and not hindered 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 actions 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 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).

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 and land owners.

Here are a number of examples of local initiatives in the South East River Basin District.

Influencing commercial and business activities to have regard for the River Basin Management Plan is a major opportunity and challenge. Examples include our work with Port and Harbour Authorities to ensure that their capital and maintenance programmes comply with environmental requirements. To support this a new dredging protocol is being developed. At a longer time scale the Environment Agency has recently commented on Associated British Ports' 25 year strategy.

In influencing marinas and recreational boating the Environment Agency are working in partnership with the Royal Yachting Association and the British Marine Federation on an initiative called 'Green Blue', which promotes waste recycling, the provision of pump-out facilities and an environmental code of practice for marinas and recreational boating.

In promoting sustainable business practice the Environment Agency provide web based and face-to-face advice and we sponsor a number of Green Business Awards. On the Isle of Wight, the Isle of Wight Footprint Trust, is helping to reduce businesses' environmental footprints.

The Environment Agency work extensively with a wide range of partners to meet the objectives of the UK Biodiversity Action Plan, which offers significant opportunities to realising Water Framework Directive objectives. For example the Meon Valley Partnership has brought together landowners, the South Downs National Park, the Hampshire Wildlife Trust, the Farming and Wildlife Advisory Group and the Environment Agency to deliver practical action on the ground through integrated catchment management.

Across the river basin district there is a wide range of partnerships that can contribute to achieving Water Framework Directive objectives, that range from community based initiatives to rivers trusts such as the Sussex Ouse Conservation Society and Wessex Chalk Streams and Rivers Trust. These projects offer a major opportunity to engage local people and implement the South East River Basin Management Plan.

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 and Coastal Erosion Risk Management). Others have made steps in the right direction (development planning) 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 Agency¹⁶ 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. The Environment Agency 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".

¹⁶ River Basin Planning Guidance. Department for Environment, Food and Rural Affairs & Welsh Assembly Government. 2006

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 org	Key partner org
Agriculture	Common Agricultural Policy	Framework for financial support of agriculture: food and fuel production; agricultural economy; rural development	Defra	Rural Payments Agency (RPA), Natural England, Rural Inspectorate Wales, Environment Agency, Farming Unions
	Cross Compliance, Soil Protection Review	Avoidance of pollution, soil erosion, environmental damage	Defra	Rural Payments Agency, Rural Inspectorate Wales, Natural England, Countryside Council for Wales, Environment Agency
	Catchment sensitive farming / England Catchment Sensitive Farming Delivery Initiative	Reduce diffuse water pollution	Defra	Environment Agency, Natural England,
	The EU Structural Fund programmes Objectives 1 & 2	Major EU funding mechanism for supporting social and economic restructuring across the EU.	Defra	Government Offices, Regional Development Agencies
	Nitrate Vulnerable Zones and Nitrate Action Programme	To reduce nitrate pollution from agriculture		Environment Agency
	Rural development programme / plan	Framework for operation of integrated schemes to protect and improve rural environmental, social and economic development	Defra	Natural England, Farming Unions and Regional Development Agencies
	Soil Strategy for England	To reduce pollution, including diffuse pollution from soil erosion	Defra	Environment Agency, Natural England

Agriculture	Agri-environment schemes	Protect and enhance biodiversity, protect and enhance natural resources, protect historic environment	Defra	Natural England, Farming Unions, Royal Society for Protection of Birds, Environmental Non Governmental Organisations
	Energy Crops Scheme (Short Rotation Coppice)	Reduce greenhouse gas emissions	Defra	
	Organic Farming Scheme / Organic Entry Level Scheme	Increase area of organic farming	Defra	Organic certification bodies
	Environmentally Sensitive Areas Scheme	Landscape preservation	Defra	
	Woodland Grant Scheme/ English Woodland Grant Scheme	Encourage establishment of areas of woodland on farms which can be positioned to reduce diffuse pollution	Forestry Commission	Natural England, Environment Agency
	Farm Woodland Premium Scheme	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	
	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 & quality	Future water	Defra water strategy for England and Wales	Defra	
	Periodic Review Process	Process to agree set of management and investment plans plus associated water tariffs over a 5 year period.	Ofwat (The Water Services Regulation Authority),	Environment Agency, Water Companies
	Asset Management Plans (incl. Drainage Area Plans) & Water Cycle Strategies	Forms part of the Periodic Review Process and looks at quality 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.	Water Companies	Ofwat (The Water Services Regulation Authority), Environment Agency, English Nature, Defra, Drinking Water Inspectorate
	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	Defra (who will receive plans)	Environment Agency - review of social and environmental aspects; Ofwat (The Water Services Regulation Authority) - economic issues
	Water Resources Strategies	A broad development strategy for a region for 15-20 years covering water resources for housing, environment, transport, waste, minerals.	Environment Agency	Stakeholders
	Restoring Sustainable Abstraction Programme (Environment Agency) incl. Low flow alleviation plans/ programmes & 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	Licence holders
	Drought Contingency Plans (Water Company)	Operational management tool to look at water shortage scenarios	Defra (who will receive plans)	Environment Agency - review drought plans
	Catchment Abstraction Management Strategies	Identifies discrete licences that may be impacting upon the environment to guide management of abstraction licences.	Environment Agency	Abstraction Licence Holders i.e. Water Companies, CBI, National Farmers

Water resources & quality				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 groundwater. 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 stakeholders
	Chemical strategy pollution reduction plans	Tackle issue at a substance level and are not location based. Water, air, land - all mediums considered.	Environment Agency	Substances control under various regulations
	Endocrine disrupting substances in the Environment strategy		Environment Agency	
Flood and coastal erosion 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
	Catchment Flood Management Plans	Strategy to identify future measures needed to ensure management of flood risk within river catchments	Environment Agency	Defra
	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	A management plan to address flood assets and maintenance of assets	Environment Agency	
	Coastal Habitat Management Plans	Coastal Habitat Management Plans relate to shoreline management of flood defences in relation to the 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	Defra	Defra

Flood and coastal erosion risk		Plans.		
	Drainage Area Planning (surface water)	Carried out by Internal Drainage Boards	Internal Drainage Boards	Overseen by Defra
	Water level management plans	Plan for wetland Sites of Special Scientific Interest to balance water needs of conservation, flood defence & 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
	Managed realignment plans	Habitat Creation Programme		Environment Agency
Development & 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.	Communities and Local Government /Infrastructure Planning Commission	
	England Rural Development Programme	Funded by the European Commission and 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.	Communities and Local Government	Forestry Commission, Natural England
	Planning Policy Statements	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	

Development & Land Use	Regional spatial strategies.	With the objective to contribute to the achievement of sustainable development, the Regional Spatial Strategy, incorporating a Regional Transport Strategy, 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 including Local Development Documents	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 Frameworks must be in general conformity with regional spatial strategies	District and Borough Authorities and Unitary Authorities	Government Office
	Waste and mineral development frameworks	Cover issues of waste and minerals for relevant authorities.	County (in two-tier areas) and unitary authorities	
	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	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 and Special Protection Areas must be assessed to show no adverse effect on site integrity		

Natural Heritage	Sites of Special Scientific Interest (SSSI) remedies programme	Funds remedial action where there is a risk that SSSI won't recover on its own. Implements all the measures that are not covered by the Habitats Directive Review of Consents.		
	Habitats Directive review of consents	All licences and permissions affecting Special Areas of Conservation and Special Protection Areas should be reviewed and assessed for their impact on conservation objectives		
	Local Biodiversity Action Plans	Action plans completed to safeguard biodiversity features.	Natural England	
	Site management plans for protected 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	
	Management agreements	Management agreements are set up to provide financial support for favourable management practices	Natural England	
	Visioning for wetland creation in catchments (Natural England, RSPB, Environment Agency initiative); local biodiversity action plans.	Implementation of biodiversity targets may be complementary to the actions under Water Framework Directive. (Frameworks are not meant to duplicate programmes needed to achieve 'good ecological status' for Water Framework Directive water bodies.)	Natural England; Royal Society for the Protection of Birds; County Wildlife Trust; County Council	Environment Agency; Internal Drainage Board
Transitional and coastal	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 River Basin Management Plans in estuaries and coastal waters.	Defra	Environment Agency, Local Authorities

Transitional and coastal	Integrated Coastal Zone Management	Integrated Coastal Zone Management is a management approach not a plan. The purpose of Integrated Coastal Zone Management is to bring stakeholders together with a common interest often to resolve conflict. 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.	Defra	All groups with regulatory, management, commercial, recreational or other interests at the coast
Fisheries	Common Fisheries Policy	Sustainable fisheries management driven through the ecosystem approach.	EU UK delivery through Defra and devolved administrations	Marine and Fisheries Agency/Sea Fisheries Committees/Environment Agency
	Freshwater Fish Directive Designations	Statutory water quality protection for designated cyprinid and salmonid fisheries.	EU England & Wales delivery through Environment Agency	Water Utilities.
	Fisheries Action Plans	Consultative processes to develop wide stakeholder engagement in freshwater fisheries management	Environment Agency	Angling organisations
	Salmon Action Plans	Catchment based strategic plans to deliver sustainable salmon management	Environment Agency	North Atlantic Salmon Conservation Organisation, Salmon and Trout Association and many others
	National Trout and Grayling Strategy	National strategy to deliver sustainable species management	Environment Agency	Salmon and Trout Association, Grayling Society.
	Eel Management Plans	National strategy to deliver sustainable species management.	Environment Agency	
	Fisheries Strategy	National strategy to provide an overview for functional 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 Water Framework Directive 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	
	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	
	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 & Navigation	British Waterways Strategy	Management of 2,000 miles of canals and rivers in England, Wales and Scotland.	British Waterways	Defra
	'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	Environment Agency, British Waterways
	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/ strategy	Explores the planning policy issues generated by the multifunctional nature, use and management of waterways.	British Waterways	Environment Agency, Local Authorities
	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, The Crown estate