

# **Implementing the Water Environment and Water Services (Scotland) Act 2003:**

## **Principles for Setting Objectives for the River Basin Management Plan**

**Draft Policy Statement**



October 2006

## FOREWORD

Scotland is in a strong position in terms of its water environment, as much of our surface water and groundwater is in very good condition. We also now have in place an integrated framework to protect and improve our water environment through the Water Environment and Water Services (Scotland) Act 2003 (“the WEWS Act”), which transposed the Water Framework Directive, and the Water Environment (Controlled Activities) Regulations 2005 (“CAR”), introduced earlier this year.

However, our water bodies are under pressure from a variety of uses. We need to ensure that water use is sustainable, in order to protect aquatic life, and also to safeguard resources for use in the future. The framework provided by the WEWS Act and CAR will be vital in ensuring that we can protect the quality of the waters we have, and where necessary and practicable, improve the status of those that are under pressure.

The key mechanism for delivering improvements to the water environment will be the river basin management planning process. This will identify the improvements to the water environment that it is technically feasible and proportionate to make, how and when these improvements can be made and, therefore, the objectives we expect to achieve in the period covered by the River Basin Management Plan.

The Scottish Executive is currently developing policy on two of the key components of the river basin management planning process:

- **The development and use of environmental standards to protect aquatic ecosystems;**
- **The setting of appropriate environmental objectives through the river basin management planning process.**

These processes, although separate, are interdependent and inform each other. For that reason, the Executive is consulting simultaneously on proposals for these key components of the river basin management planning process.

This draft policy statement on objective setting for the River Basin Management Plan sets out how we will use the provisions in the Directive to set objectives which protect both the water environment and the continued sustainable use of this valuable resource.

The consultation on the development of the first phase of environmental standards for the Water Framework Directive can be obtained from the Scottish Executive website at <http://www.scotland.gov.uk/Publications/Recent> or by contacting the Water Division – see details on page 3 of this paper.

**We suggest you may wish to read these two papers together.**

## 1. INTRODUCTION TO THE DRAFT POLICY STATEMENT

This draft Policy Statement sets out Ministers' aims for the objective-setting process for river basin management planning under the Water Environment and Water Services (Scotland) Act 2003 ("the WEWS Act"). It identifies the principles that SEPA should take into account in discharging its statutory duties to deliver effective river basin management planning in Scotland.

This paper aims to explain the context and process of objective setting to those who will be directly or indirectly affected, such as operators of controlled activities; developers; and interested third parties including responsible authorities and other relevant public bodies. River basin management planning is an iterative process and so we have also set out the various interactions and dependencies, including the links with proposed environmental standards and regulatory processes.

### **GENERAL PURPOSE AND PRINCIPLES OF RIVER BASIN MANAGEMENT PLANNING**

The River Basin Management Plan is a 6-yearly statement which sets out how we are meeting the requirements of the Water Framework Directive and how we are planning to continue to do so. Producing such plans will involve identifying risks to the status of our water environment, and assessing how and to what extent these risks can be addressed during the period covered by the plan and by subsequent plans.

The objective setting process will allow us to strike the right balance between protecting the water environment and securing its sustainable use for the purposes of economic and social development. The planning process will also provide new opportunities for interested parties to become actively involved in shaping how we protect and improve our river basin districts.

In general, the key steps can be summarised as follows:

1. Characterising water bodies in Scotland, identifying the pressures we are placing on them, and assessing whether these pressures are going to prevent the bodies from achieving good status;
2. Setting an appropriate environmental objective for each water body. This will involve:
  - Identifying what improvements, if any, would be needed to achieve good status;
  - Deciding whether it would be technically feasible to make these improvements and, if so, what the most cost-effective means of making them would be;
  - Weighing up whether it would be disproportionately expensive to make the improvements; and
  - If it is disproportionately expensive or technically infeasible to make the improvements, deciding what improvements it would be feasible and proportionate to make and hence what alternative objective can be achieved.
3. Describing the environmental objectives we have set and a summary of the measures we are going to use to achieve them in the relevant River Basin Management Plan.

This process will allow environmental improvements to be prioritised over successive planning cycles whilst securing the continued sustainable use of Scotland's water resources.

Some of the work for the first plan, for example an initial characterisation and risk assessment, is complete. This paper sets out our thinking on the next steps along the way.

## **1.1 Response Arrangements**

The Executive welcomes your views and comments on any aspect of the proposed process and considerations set out in this document. Please send any responses to:

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Area 1-H, Victoria Quay  
EDINBURGH EH6 6QQ

Tel: 0131 244 0737  
Fax: 0131 244 0245  
E-mail [waterdivision@scotland.gsi.gov.uk](mailto:waterdivision@scotland.gsi.gov.uk)

Responses should reach us by **13 December 2006**. Earlier responses would be welcome.

## **2. LEGISLATIVE FRAMEWORK AND PRINCIPLES**

### **2.1 The Water Framework Directive's Objective-setting Provisions**

The Water Framework Directive (Directive 2000/60/EC) (WFD) provides, for the first time, an integrated framework for protecting and improving the status of the water environment across Europe. It applies to all surface water and groundwater, including rivers, lochs, estuaries and coastal waters, and artificial water bodies such as canals. It also seeks to protect the water needs of wetlands. The Directive adopts a source-to-sea approach to water management, recognising that impacts in one water body may also affect other water bodies in the river basin.

The WFD includes a set of environmental objectives for surface waters and groundwater that Scotland is expected to achieve, but also makes provision for setting alternative objectives where appropriate. The Directive's objectives<sup>1</sup> are to:

- protect, enhance and restore all water bodies with the aim of achieving good status by 2015;
- for surface water bodies designated as heavily modified or artificial, protect, enhance and restore with the aim of achieving good ecological potential and good surface water chemical status by 2015; and
- prevent deterioration of the status of all water bodies.

The objective setting process is about deciding where the use of alternative objectives is appropriate and what those alternative objectives should be. For example, if the measures needed to achieve good status in a water body by 2015 would be disproportionately expensive, the timetable for achieving good status can be extended by up to 12 years. Alternatively, a less stringent objective than good status can be set for 2015. If a less stringent objective is set for 2015, the potential for further environmental improvement must be reviewed in each planning cycle.

Certain water uses, such as hydropower generation and flood defence, often depend on substantial physical alterations to water bodies that are incompatible with the achievement of good status. The Directive allows these water bodies to be designated as heavily modified, and for objectives to be set for them that can be achieved without significant adverse effects on their uses.

The objectives set for water bodies may also be changed, under certain circumstances. For example, new activities that will cause deterioration of status or prevent the achievement of good status may be permitted, provided that their benefits to human health, human safety or sustainable development outweigh their costs to the environment and to society; that there are no significantly better alternative means of providing the benefits; and that all practicable mitigation measures are taken to minimise their adverse effects on the water environment.

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<sup>1</sup> The Directive also specifies a number of other environmental objectives to which the process for setting objectives described here does not apply or only applies to a limited extent. See Annex A.

## **2.2 The Water Environment & Water Services (Scotland) Act 2003 and associated secondary legislation**

The WEWS Act transposed the EC Water Framework Directive into Scots Law. As with the Directive, the aim of the WEWS Act is to protect and restore the water environment whilst also protecting the social and economic interests of those who depend on it.

The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (CAR), introduced under the WEWS Act, will be a key tool in the river basin management planning process. CAR requires SEPA to control activities which can have adverse effects on the water environment, such as discharges, abstractions, impoundments and engineering works in the freshwater environment. CAR will therefore help SEPA to identify pressures, deliver the improvements to the water environment that can be made without disproportionate expense, and prevent deterioration of status.

SEPA is expected to use its regulatory powers to:

- protect the water environment and prevent deterioration of status;
- ensure improvements are made to status of the water environment;
- safeguard an appropriate level of environmental capacity for future sustainable development; and
- protect the interests of other users of the water environment.

SEPA's regulatory activity and the development of objectives for each water body are inter-dependent processes. The regulatory activity will inform the river basin planning process by identifying environmental improvements that can be delivered through CAR without disproportionate cost and any further improvements that would need to be delivered by other means in order to achieve good status. The priorities identified through, and the improvements delivered by, the wider river basin management planning process will in turn influence SEPA's regulatory activity. It is therefore important that the regulatory and river basin planning processes are properly and effectively integrated.

Other bodies and organisations, and members of the public, will be consulted by SEPA on relevant regulatory decisions using the advertisement provisions built into CAR. Where a significant concern has been raised and the body, organisation or individual raising that concern feels that SEPA has not given that concern appropriate weight, the body, organisation or individual will be able to ask Scottish Ministers to intervene in the case<sup>2</sup>.

The Scottish Executive has identified a number of bodies as 'responsible authorities'<sup>3</sup> in the river basin management planning process. These authorities are expected to make a substantial contribution to the river basin management process by providing expert information and advice where required to help SEPA make its regulatory decisions, taking actions themselves to protect and improve the water environment, and encouraging and supporting others who may be willing and able to take such action.

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<sup>2</sup> The Executive is preparing a Policy Statement on the process whereby SEPA, and Scottish Ministers where appropriate, will be able to take into account representations made by third parties. The paper will shortly be available at <http://www.scotland.gov.uk/Publications/Recent>.

<sup>3</sup> The designation of responsible authorities came into force on 1 April 2006. A policy statement and the Designation Order are available at <http://www.scotland.gov.uk/Publications/2006/03/08143009/0>.

### **3. CHARACTERISATION AND IDENTIFICATION OF RISKS AND PRESSURES**

The WEWS Act requires SEPA to describe the characteristics of Scotland's rivers, lochs, transitional waters, coastal waters and groundwater; identify the pressures water users are placing them under; and assess the risk that these pressures will result in the water bodies failing to achieve good status or one or more of the Directive's other objectives. SEPA completed the first assessment of Scotland's water bodies at the end of 2004.

#### **3.1 Pressures in Scotland**

Scotland is in an enviable position internationally, with 55% of our water bodies already expected to be at good status or better. The pressures placing the remaining 45 % of water bodies at risk of failing to achieve good status are described in the characterisation reports published in March 2005<sup>4</sup>.

In 2007, SEPA will publish a Significant Water Management Issues (SWMI) Report. Among other things, this will set out the results of work SEPA has been doing since 2004 to refine its initial risk assessments. SEPA will use its improving understanding of the risks to the water environment to help focus regulatory and other action to protect and improve the water environment on the most significant risks.

#### **3.2 Identification of Heavily Modified and Artificial Water Bodies**

Artificial water bodies are, as the term suggests, man-made surface water bodies such as canals that have been created where no water body existed previously. Heavily modified water bodies (HMWBs) are natural surface water bodies whose physical characteristics have been substantially altered to facilitate certain human uses. The designation of a water body as an HMWB or artificial water body means that the objective set for the body has to be compatible with the uses of the body that depend on the altered physical characteristics. These uses could include, for example:

- Navigation, including port facilities or recreation
- Water storage, for example for drinking water, power supply or irrigation
- Water flow regulation, for example for flood protection

Water bodies may be designated as heavily modified if:

(a) Making the improvements to the physical characteristic of the water body that would be necessary to achieve good status would have a significant adverse effect on the wider environment or on the use or uses that rely on the modifications;

AND

(b) For reasons of technical feasibility or disproportionate cost, there is no environmentally significantly better alternative means that could reasonably be used to provide the benefits associated with the water use.

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<sup>4</sup> [http://www.sepa.org.uk/pdf/publications/wfd/Article\\_5\\_Scotland\\_River\\_Basin.pdf](http://www.sepa.org.uk/pdf/publications/wfd/Article_5_Scotland_River_Basin.pdf)

SEPA has already identified water bodies that may qualify for designation as heavily modified. A list of these bodies was published in the characterisation report. We think that it will be fairly obvious for a significant proportion of these water bodies whether or not the tests for designation are met. Where this is the case, we expect SEPA will be able to confirm the designation during 2007 and provide an update on the designation process in the SWMI Report. For other water bodies, SEPA is likely to need more time to gather the information needed to make a judgement on whether designation is appropriate. SEPA will aim to set out the designation of all heavily modified water bodies in the first draft plan in 2008.

### **Example of an HMWB**

An estuary on which there is a major port facility is failing to achieve good status because of the effects of quays and the dredging works needed to provide a navigable channel. The restoration of the estuary to good ecological status would require the removal of the quays and their replacement with a more natural inter-tidal zone and a significant reduction in the extent of navigable channel. Such measures would clearly have a significant adverse effect on the functioning of the port by preventing the loading and unloading of ships and other vessels. There is also no obviously environmentally significantly better alternative means of moving the goods transported via the port. It would therefore be appropriate to designate the water body as a HMWB.

**We think this is an example of the type of circumstances in which it is clear that the tests for designation of the body as heavily modified are met.**

Artificial and heavily modified water bodies cannot, by definition, achieve good ecological status. Instead, the objective for such water bodies is to aim to achieve good ecological potential by 2015, except where the river basin planning process determines that an alternative objective is appropriate because achieving good ecological potential within this timescale would be technically infeasible or disproportionately expensive. The alternative objective may be either to achieve good ecological potential by an extended deadline or to achieve a less stringent objective than good ecological potential.

#### **4. ENVIRONMENTAL QUALITY STANDARDS AND ECOLOGICAL STATUS CLASSES**

The ecological status of a surface water body describes the degree to which human uses of the water environment have adversely affected the structure and condition of the aquatic ecosystem it supports. Good ecological status means that human activities have had only slight impact on the ecological characteristics of the plant and animal communities that live in the water body. The UK is participating in a Europe-wide exercise to ensure that our methods for classifying the status of our water bodies give results that are consistent with the WFD's status definitions and comparable with those of other Member States.

To protect and improve the ecological status of surface water bodies, we need to identify, and set environmental standards for, the physical conditions on which the status of aquatic plants and animals rely. These physical conditions include the pattern of water flows; the condition of the bed and banks of water bodies; and the concentrations of pollutants in water.

For groundwater, the Directive requires us to consider the chemical make-up of the water body and the groundwater levels within it. We shall also be developing standards for these conditions.

SEPA and other regulators and responsible authorities will use these environmental standards to help work out, for example, how much water could be abstracted from the water environment, how much of a pollutant could be discharged and how much engineering work could be undertaken without significant risks to the health of the plants and animals that directly depend on the water environment. In turn this will tell them what would need to be done to prevent deterioration or to restore water bodies to good ecological status. Such information will be the starting point for the objective setting process.

To identify standards, the environment and conservation agencies from across the UK have collaborated on a major review of existing environmental standards. This review has been designed to identify standards that represent the environmental quality needed to protect aquatic ecosystems.

The review is the first of its kind and has involved many of the UK's leading independent experts in ecology, hydrology, geomorphology and chemistry. Monitoring results from thousands of sites across the UK and scientific literature from around the world has informed the process. It has provided us with the best ever assessment of the environmental standards needed to support healthy aquatic plant and animal communities.

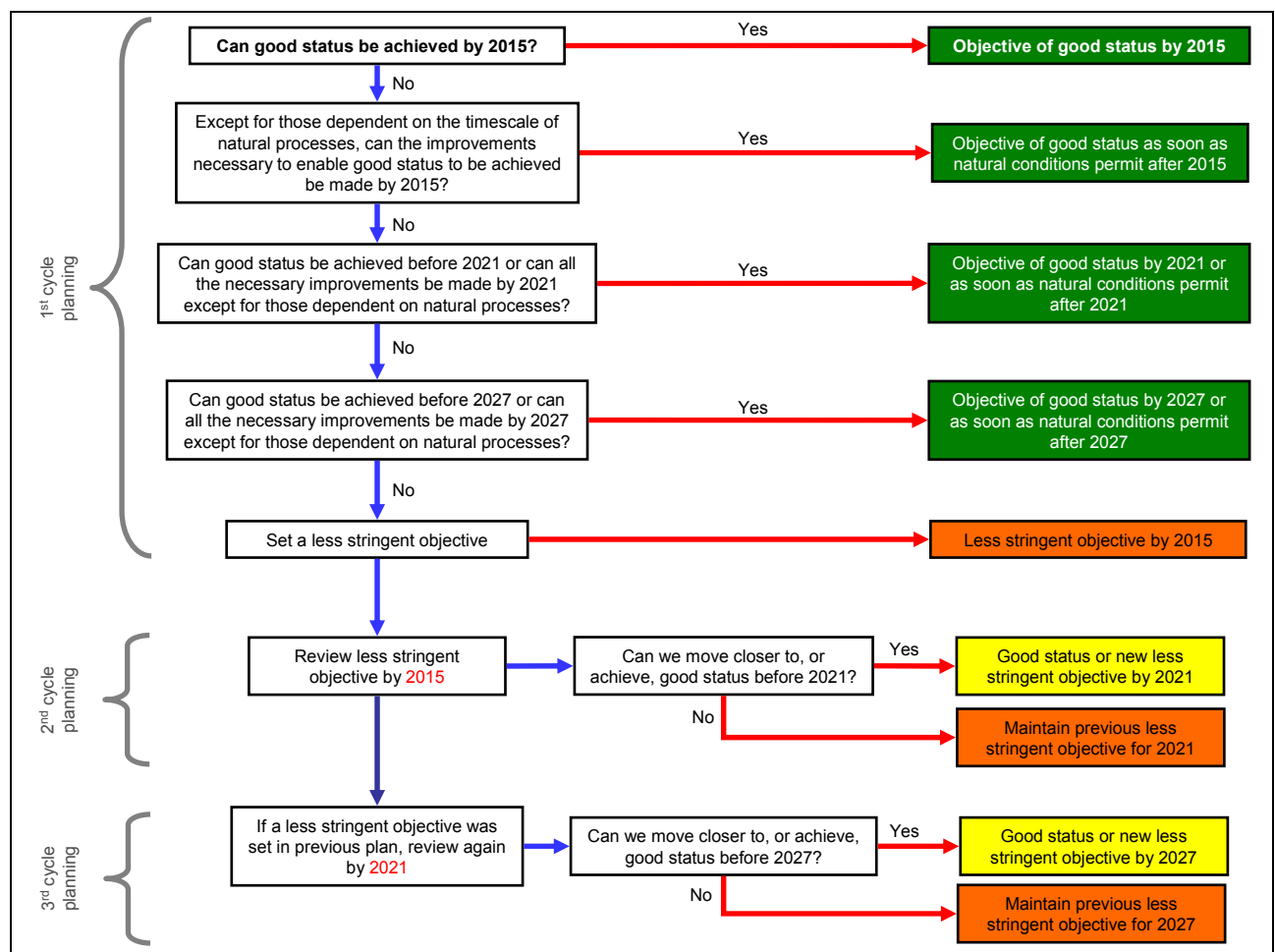
The Executive is consulting separately on proposals for standards and conditions, and details of that consultation can be found at <http://www.scotland.gov.uk/Publications/Recent>

## 5. OBJECTIVE SETTING FOR THE RIVER BASIN MANAGEMENT PLAN

### 5.1 Overview

The WFD’s objective setting provisions are designed to allow Member States to strike the appropriate balance between protecting and improving the water environment and ensuring sustainable uses can continue and flourish.

The Directive requires us to achieve good status when and where it is technically feasible and proportionate to do so. Objective setting is an improvement planning process which, through the appropriate use of the alternative objectives, will allow us to phase improvements over several river basin planning cycles without undermining the sustainable use of our water resources. The process for the first three river basin plans is summarised in Figure 1 below.



**Figure 1: Improvement planning under the WFD**

The Executive expects SEPA to reflect the long-term, iterative planning process set out in Figure 1 when determining the environmental improvements operators of controlled activities will be required to make and the time over which they will be required to make them.

## **5.2 CAR authorisation reviews**

We already have the first of our major delivery mechanisms for environmental protection and improvement in place – CAR. Many of the most significant pressures on the water environment are controlled activities and therefore subject to the requirements of CAR. SEPA’s use of its powers under CAR is therefore expected to make a significant contribution to the achievement of the objectives of the WFD.

Early in 2007, SEPA will begin reviewing authorisations held for activities that are presenting a significant risk to the achievement of the WFD’s environmental objectives. The review process will identify the extent to which it is feasible and not disproportionately expensive to avoid or reduce the adverse impacts of those activities on the water environment through varying their conditions of authorisation. This will contribute to the river basin planning process by helping to identify what improvements can be delivered by operators of controlled activities, and hence what objectives can be achieved through CAR. The process set out in the following sections describes how SEPA’s regulatory activity will inform the development of the first river basin management plan.

## **5.3 Good Status and less stringent objectives**

The starting point in all cases will be to consider whether the environmental standards needed for good status (or good ecological potential in the case of HMWBs as described in section 3.2) can be achieved. In determining the appropriate status objective for a water body, SEPA will need to consider the impacts, both individually and cumulatively, on that water body.

If an operator cannot make the improvements necessary to achieve the good status standard by 2015 for reasons of disproportionate costs or technical infeasibility, SEPA may allow that operator to achieve a less stringent environmental standard than that needed for good status. For example, where a water body is at risk of failing to achieve good status because of the effects on water flows of a large abstraction, SEPA may determine that it is disproportionately expensive for an abstractor to reduce the abstraction by the extent needed to achieve the flow standard for good status but that the abstractor can make the improvements needed to support the achievement of the flow standard for moderate status.

This will mean that a less stringent objective than good status will have to be set for the water body overall under the river basin planning process. This less stringent objective must represent the least possible environmentally significant changes from the conditions required for good status. If the water quality and morphological conditions are already meeting the good status environmental standards, it will require their protection to the extent needed to avoid any deterioration in the ecological quality of the body and prevent the potential for the future achievement of good status from being compromised. If the water quality and morphological conditions are not already good, it will require their improvement to the extent that is technically feasible and not disproportionately expensive.

In making judgements about the significance of particular impacts, SEPA will seek advice from other responsible authorities and public bodies with particular expertise in those areas. For example, if varying an authorisation is likely to have a positive impact on conservation interests, SEPA may request advice from SNH on the significance of that impact. Responsible authorities will be expected to provide such advice as they reasonably can on matters which are within their competence.

### **Dealing with multiple pressures**

Sometimes more than one pressure will be contributing to the failure of an environmental standard needed for good status or the environmental benefits of achieving a standard will not be realised unless other impacts are also addressed. For example, there would be no ecological benefit in installing a fish pass at a dam if the flows in the river below the dam were so low that fish could not use the fish pass.

The starting point for dealing with a failure of an environmental standard caused by more than one pressure is to work out which pressures are making a significant contribution to the failure and the magnitude of their contributions.

The next step is to assess the extent to which the contributing pressures will be reduced through actions required under other Directives or through the implementation of basic good practice measures, such as those set out in general binding rules.

If there will still be a problem and the pressures contributing to a failure are controlled activities, the operators may be able to agree between themselves the most cost-effective way of making the necessary changes to achieve the good status standard. If so, SEPA will reflect this management agreement in the authorisations for the activities. In other cases, SEPA will review the authorisations for each of the activities so that it has the information it needs to assess the most cost-effective way of reducing the pressures responsible for the failure of the environmental standard.

It may be that both point sources from waste water treatment works and diffuse sources from agricultural land are making a significant contribution to the failure of an environmental standard. In making decisions on the objectives they set for Scottish Water and on the measures they introduce to address diffuse agricultural pollution, Ministers will take into account the relative contributions to the failure of the standards and the relative costs of reducing those contributions.

### **5.4 Technical infeasibility and disproportionate cost**

If an operator whose authorisation is being reviewed believes that making the changes necessary to achieve the standards required for good status would be technically infeasible or disproportionately expensive, SEPA will be expected to determine whether the conditions set out in the Directive for allowing an extended timetable for achieving good status or the setting of a less stringent objective have been met. Among other things, this will involve assessing whether:

- making the improvements is technically infeasible;
- the most cost-effective option for making the improvements has been identified and appraised by the operator; and
- the implementation of that option would result in disproportionate expense.

Where making the improvements is not technically infeasible, SEPA will be expected to consider any significant positive or negative social, economic or environmental impacts associated with making the improvements. This will include impacts experienced by the operator, other users of the water environment and interested third parties. SEPA will use the

advertising provisions of CAR to ensure interested third parties have the opportunity to express their views about such impacts.

It will be in the interests of operators of controlled activities and SEPA that the information and analyses used by SEPA to make a decision are not unnecessarily complicated or demanding. Much of the information used by SEPA in determining applications will be provided by the applicant or the operator. We expect SEPA to ensure that its demands for information are reasonable and proportionate to the significance of the issues at stake in the case concerned. In the majority of cases, we do not anticipate that SEPA will need to undertake complex economic analyses.

#### **Keeping costs proportionate**

It may be disproportionately expensive to make the improvements necessary to achieve a good status standard by 2015 because this would involve replacing an expensive capital asset prematurely. However, timing the improvements so that they coincide with the planned replacement schedule for the asset could allow the improvements to be made without disproportionate expense.

Such considerations will also inform decision-making by other responsible authorities. Suppose a forest for which the Forestry Commission is responsible is exacerbating the acidification of a freshwater loch. The forest is due to be clear-felled and re-planted in 15 years time using a more sensitive forest design that will have a much lower impact on the loch. To bring the harvesting timetable forward by 15 years might significantly reduce the economic return provided by the forest and, as a consequence, might prove disproportionately expensive.

If SEPA determines that the operator cannot make the improvements needed for good status within the period covered by the plan, SEPA will identify what improvements, if any, will be expected from the operator over the following planning cycles. Identifying the improvements expected over the medium to long-term is important in order to provide business certainty for operators whilst still improving the water environment.

#### **Phasing improvements under CAR**

For heavily modified water bodies, we must aim to achieve good ecological potential. Good ecological potential must represent an ecological quality only slightly less than the best that could be achieved without significant adverse impacts on the use or the wider environment. For example, to achieve good ecological potential in water bodies modified for a hydropower scheme, the scheme would need to incorporate those good environmental practice measures that would mitigate its adverse impacts on the water environment whilst not having significant adverse impacts on hydropower generation or on the wider environment. Such good practice measures might include ensuring effective provision for fish passage.

However, even though, by definition, such good practice measures would not have a significant adverse impact on hydropower generation they may nevertheless prove technically infeasible or disproportionately expensive to implement at the site by 2015. If this is the case, in reviewing the authorisation for the scheme, SEPA will determine those improvements the operator can reasonably make over the current cycle and over subsequent planning cycles.

## 5.5 Using regulation innovatively

There may be more than one way in which the operator of a controlled activity could make the environmental improvements required of them. For example, an abstractor may be able to reduce the amount of water abstracted by obtaining some of his needs from another source, by repairing leaks in his water pipes or some combination of the two. Innovation by operators will be important in helping us implement the Directive as cost-effectively as possible. We expect SEPA to ensure that the regulatory process provides for operators to use the most cost-effective means they can for making the required environmental improvements.

### **Finding cost-effective, environmental solutions - Management Agreements**

Sometimes more than one operator will be contributing to a particular impact on the water environment. CAR allows these operators scope to agree between themselves a means of delivering the necessary improvements which they consider best matches their needs. For example, there may be a number of abstractors who are contributing to an impact on the flow of water in a river. These abstractors may be able to reach agreement between themselves on, for example, a way of staggering their abstractions so that flows in the river are protected. If so, CAR provides that SEPA can simply specify adherence to the management agreement as a condition of authorisation for the abstractions.

### **Finding cost-effective, environmental solutions - Sustainable Urban Drainage**

CAR is designed to encourage the use of cost-effective solutions. Under CAR, surface water run-off may be discharged to the water environment without the need for an authorisation from SEPA provided the discharge meets the conditions specified in the relevant general binding rule (GBR) set out in CAR. One of the conditions contained in the GBR is that new discharges are from a Sustainable Urban Drainage System (SUDS).

The use of SUDS can mean both a lower regulatory burden and a more cost-effective option than traditional treatment techniques. When the Ardlar Estate on the outskirts of Dundee City was regenerated, the Local Authority installed reed beds, swales and retention/attenuation ponds throughout the estate to ensure that surface water did not drain into the sewers and instead was diverted into a culverted watercourse. The swales on the Ardlar Estate collect the rain water, contaminated with urban pollutants, and direct the surface water flow to two ponds containing reed beds which remove the pollutants. These ponds also attenuate flows to prevent flooding during heavy rainfall.

The reed beds and ponds have significantly improved the environmental aspects of the regenerated estate and, as the reeds and other planting have established themselves, habitat enhancement has allowed a variety of wildlife to become established.

The Ardlar Estate SUDS has minimised the run-off that Scottish Water has to transport to its treatment plant at Arbroath, and avoided the need for expensive end-of-pipe treatment prior to discharge back into the water environment.

### **Finding cost-effective, environmental solutions - storing water for later use**

An abstractor needs water for irrigation during dry weather conditions. This is exactly the time when the water environment is most stressed and thus least able to meet the needs of the abstractor without suffering adverse impacts. By creating storage ponds that are replenished during high river flows, the abstractor is able to use the stored water to irrigate his crops when river flows are at their lowest and so protect the water environment.

## **5.6 New developments**

To achieve the objective of preventing deterioration of status, new water uses need to be directed, as far as possible, to parts of the water environment that have sufficient capacity to accommodate them and subjected to appropriate controls. The Executive expects SEPA and other regulators to help achieve the no deterioration objective by:

- working together to ensure that development planning and control decisions are informed by information on the capacity of the water environment to accommodate the pressures that may result from developments and the ways in which developments can be designed to mitigate their impacts on the water environment;
- refusing to grant authorisation for proposed activities that would cause deterioration of status or prevent the future achievement of good status unless they are satisfied that the Directive's criteria for permitting these impacts on the water environment are met (see Section 2.1);
- ensuring authorised activities use water efficiently; and
- encouraging and, where necessary, enforcing compliance with the conditions of authorisations they have issued.

Before considering granting any application for authorisation of a controlled activity that would cause deterioration of status or prevent the future achievement of good status, SEPA must consider whether the tests set out in the Directive for allowing such adverse impacts are met. This will include determining whether the benefits of the new development to human health, human safety or sustainable development outweigh the benefits to the environment and society of protecting the status of the environment. It will also include determining whether there are any significantly less damaging ways that could reasonably be used to provide the benefits expected from proposed development.

Where SEPA is considering the benefits of a proposed activity to sustainable development, we expect SEPA to refer to, among other things, the Statutory Guidance to SEPA on sustainable development made under Section 31 of the Environment Act 1995.

## 6. PROGRAMME OF MEASURES TO PROTECT AND IMPROVE THE WATER ENVIRONMENT

The programme of measures we establish to protect and improve the water environment have to include basic regulatory controls. We have already taken a number of steps at national level that will contribute to achieving the environmental objectives of the Water Framework Directive. For example, as well as introducing CAR, we have implemented preceding Community legislation, such as the Urban Waste Water Treatment Directive, the Drinking Water Directive, the Bathing Waters Directive, the Nitrates Directive and the Integrated Pollution Prevention and Control Directive.

However regulatory controls in the form of licences for individual activities may not be sufficient on their own to address particular pressures, or may not be the most cost-effective way of doing so. As is currently the case, regulatory controls may need to be supplemented with other measures to improve their effectiveness. For example, educational initiatives and awareness campaigns can make it easier for operators to comply with conditions of authorisation or help them reduce the risks posed by their activities and so reduce or avoid regulatory burdens.

### **Educational Initiatives**

WaterSense is a joint initiative between WWF (funded by HSBC), the Scottish Executive, SEPA and Scottish Water aimed at consumer education to discourage the use of household products containing environmentally damaging chemicals. The tagline “Careful what you put down your drains” was used to get the message across that household drains eventually lead to the water environment, either directly or via a sewer and treatment plant. By working with media, educational institutions, national and local partners, the campaign reached an estimated 3 million consumers across Scotland, encouraging them to switch to cleaners and toiletries containing less phosphorus and other pollutants and to use less.

An educational campaign such as WaterSense could also lessen the amount of phosphorus that has to be removed at sewage treatment works prior to discharge and could therefore present a cost-effective way of addressing the risk to water bodies. An educational campaign is also likely to have wider environmental benefits as local consumers become aware of their effect on the environment and start altering their behaviour.

<http://www.watersense.org.uk/index.php>

Economic incentives can also play an important role and will be part of the Executive’s strategy for tackling diffuse pollution. The CAR charging scheme also provides economic incentives, for example, controlled activities that are designed to deliver environmental improvements, such as restoration-focused river engineering works or remediation of waters affected by past mining activities, will not be subject to charges.

There are also many water management initiatives that public bodies, non-government organisations, private companies and individuals undertake which make a significant contribution to the protection and improvement of the water environment. They include, for example, habitat enhancement schemes and measures to control the spread of invasive species. We expect SEPA and other responsible authorities to encourage and support such initiatives and for SEPA to take account of them when it sets out in the river basin

management plan the measures being taken in Scotland and the objectives these measures will deliver.

### **Sustainable Flood Management**

An urban area is at high flood risk from a river with important habitats for fishery and other protected species. Options include upstream storage impoundments, which can impact heavily on sediment transport, washlands, and conventional walls or embankments.

WEWS places a duty on Ministers, SEPA and responsible authorities to promote sustainable flood management in carrying out their functions. This means that when making flood prevention decisions local authorities, who have been designated as responsible authorities, should consider how they can balance social, economic and environmental considerations for today and the future. It encourages practitioners to take a wider catchment approach to solutions and work with all stakeholders from the outset in reaching a final decision.

We expect the relevant local authority or authorities and SEPA to cooperate with each other and other relevant stakeholders to find the solution with lowest impact on the water environment, for example walls and embankments, set back from river's edge to minimise impact on the water environment, with additional habitat enhancement where set back defences are not technically feasible.

We are now working on proposals for reducing diffuse pollution and for enabling the restoration or enhancement of water bodies that have been adversely affected by past engineering works. The measures we plan to introduce to tackle diffuse pollution will work alongside other initiatives including codes of good practice for agriculture and forestry and the new land management contracts for farmers. The river basin planning process will take account the likely effects of these national initiatives when deciding what action to improve the water environment will be needed at the local level.

In due course, we may find there are other national measures we need to introduce in order to achieve the Directive's objectives, for example to tackle problems which emerge in the future or to increase our effectiveness in dealing with existing problems. We expect SEPA and its Advisory Groups to identify and help develop ways in which these problems could be more effectively addressed. SEPA will provide an update on this work when it publishes its Significant Water Management Issues report in 2007.

## **7. ROLES IN RIVER BASIN MANAGEMENT PLANNING**

WEWS established clear roles for both SEPA and Ministers in taking forward the river basin management planning process. This section sets out some of these roles and illustrates the various inter-dependencies and shared responsibilities between the different bodies.

### **7.1 SEPA's Role**

SEPA is responsible for co-ordinating the river basin planning process and producing river basin management plans. In carrying out this role, SEPA must encourage and facilitate the active involvement of interested parties. SEPA published a strategy in 2005<sup>5</sup> outlining the different phases in the preparation of river basin management plans.

SEPA will also play an important role in delivering the protection and improvement of the water environment through the exercise of its regulatory powers under CAR and other regulations, as previously discussed.

SEPA is responsible for making recommendations on appropriate objectives and programmes of measures to Ministers. These recommendations will be set out in the draft plan, which must be published by the end of 2008. As part of this process SEPA will be expected to provide Ministers with information on regulatory and other measures that have already been agreed with operators of controlled activities or committed to by other public bodies, private organisations and the voluntary sector and the environmental objectives these measures together with those introduced by Ministers, for example to reduce diffuse pollution, are expected to achieve.

### **7.2 Responsible Authorities and Advisory Groups Role**

SEPA has established a network of advisory groups to help it prepare river basin management plans. The National Advisory Group includes national representatives of public bodies, key sectors of the economy that depend on the water environment and other national groups with relevant interests and expertise. The Area Advisory Groups include local representatives of responsible authorities and other bodies, economic sectors with a strong interest in the water environment in their areas and other interest groups, such as voluntary environmental organisations.

These groups will provide advice to SEPA on local priorities and identify and promote measures to help protect and improve the water environment. The National Advisory Group will also help in ensuring consistency in the planning process.

As outlined in section 2.2, in April 2006 certain Scottish public bodies were designated as responsible authorities, including local authorities, Scottish Natural Heritage, Scottish Water and the Forestry Commission. We expect these responsible authorities to contribute to the river basin planning process in a number of ways including:

- playing an active part in the advisory group process outlined above;
- providing information and advice to SEPA on issues on which the responsible authorities have particular expertise;

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<sup>5</sup> [http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp\\_strategy.pdf](http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp_strategy.pdf)

- helping secure compliance with the Directive in carrying out their own functions; and
- adopting an integrated approach by cooperating with each other with a view to co-ordinating the exercise of their respective functions.

Other regulators also control certain activities that can have a significant impact on the water environment. They will also be expected to take into account the Directive's objective setting criteria when carrying out their regulatory functions and to record the reasons for their decisions; the protection and improvement expected to result from them; and a summary of the measures they require operators to take. They will have to provide this information to SEPA in a suitable form to enable SEPA to prepare the river basin management plans.

### **7.3 Ministerial Role**

Although SEPA is the competent authority for producing the River Basin Management Plan, Ministers are responsible for approving the plan and ensuring that it reflects an appropriate and proportionate level of ambition for the protection and improvement of the Scottish water environment. To do this, Ministers will consider the measures and objectives SEPA has identified and the responses to the consultation on the draft river basin management plans, and then decide whether the plan achieves an appropriate balance between protecting Scotland's water environment and the social and economic interests of those who depend upon it. These decisions will be informed by a Regulatory Impact Assessment.

Although the introduction of the WEWS Act and CAR sets the framework for the planning process there will continue to be a need for further policy development; and this will be the responsibility of Scottish Ministers

Ministers will normally be involved in regulatory determinations only where an applicant or operator has appealed against SEPA's decision or where they have decided to ask SEPA to refer an application to them for their determination in response to representations from third parties. However, there may also be Ministerial policy priorities which we expect SEPA to take into account when make its regulatory decisions, for example with regard to specific sectors such as public water supply.

## 8. CONCLUSIONS

Scotland is in a strong position in terms of its water environment. We need to ensure we can maintain this enviable position in the face of increasing demand and the uncertainty of climate change. Implementing the WFD provides us with an opportunity to develop an integrated approach to managing activities that can adversely affect the status of the water environment so that both current and future generations can enjoy it and continue to use that environment sustainably and responsibly.

The overall aim of the WFD is to achieve good status in all surface water and groundwater bodies. However, it is important that we get the balance right between protection and use of the water environment. In adopting an approach to implementation which follows the spirit of the Directive, we are ensuring both that this balance can be found and that we are planning for the long term, environmentally, socially and economically.

A key part of striking this balance is the objective setting process for the River Basin Management Plan. This is an iterative process, which takes into account local circumstances as well as national policy priorities. It allows us to set alternative objectives where achieving good status would be technically infeasible or disproportionately expensive.

The appropriate use of alternative objectives will ensure we can protect the social and economic well-being of Scotland and still deliver the high level of environmental protection and improvement on which much of our prosperity ultimately depends.

The aim of this paper has been to summarise the steps of the objective setting process within a river basin planning cycle, in order to make clear how these processes will take into account socio-economic factors; to explain the interactions with regulatory procedures; and to set out the roles of SEPA, other regulators and public bodies, Scottish Ministers, and stakeholders, in securing a sustainable water environment for Scotland.

*We welcome your comments on any aspect of this draft Policy Statement.*

## OTHER ENVIRONMENTAL OBJECTIVES

The Directive also includes a number of other environmental objectives. These objectives include:

- preventing or limiting the input of pollutants into groundwater
- Reversing any significant and sustained upward trend in the concentration of any pollutants in groundwater;
- aiming to progressively reduce pollution of surface waters by priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances; and
- achieving compliance with any standards and objectives for Protected Areas by 2015, unless otherwise specified in the Community legislation under which the individual Protected Areas have been established. The effect of this objective is to bring the objectives and standards required of other water directives under the umbrella of river basin management planning and so ensure a more integrated approach.

Different objective setting provisions apply to these objectives. For example, the obligations with respect to preventing or limiting the input of pollutants in groundwater will be set out in a new directive which is currently being discussed by the European Parliament and the European Council. The objectives for Protected Areas are determined under the legislation establishing those Protected Areas.