



Scottish Executive Environment Group

**Better bathing waters: meeting the challenges of the revised Bathing Water Directive in Scotland**

March 2006  
Paper 2006/6



Scottish Executive Environment Group

**Better bathing waters: meeting the challenges  
of the revised Bathing Water Directive in  
Scotland**

March 2006  
Paper 2006/6



## **Ministerial Foreword**

We have made considerable strides in improving the quality of Scotland's bathing waters through investment and innovation, but much more remains to be done. The last bathing waters strategy document - Scotland's bathing waters *A strategy for improvement* - published in March 2002, set out a range of actions to better understand and tackle poor water quality that affects some waters. These actions have been delivered and we now have a revised Bathing Water Directive. The time is therefore right to refocus our approach and set out clearly how to move forward.

The revision of the Bathing Water Directive brings significant challenges for us, and this strategy document maps out how our thinking has developed, and how we propose to meet these new targets. Methods of managing the water environment have evolved significantly since 1976, when the original Bathing Water Directive was introduced. In Scotland, the Water Environment and Water Services (Scotland) Act 2003 has redefined the nature of water resource management in Scotland. In transposing the revised Bathing Water Directive we will continue that trend, so that our actions combine to protect the quality of water environment as a whole as well as the health of those who enjoy our lochs and coastline for bathing.

We already work closely with SEPA, Scottish Water, local authorities, the agricultural sector and the various organisations that participate in Clean Coast Scotland. Without their involvement, the successes of the past four years could not have been achieved. The revised Directive is notable not just for the increasingly strict water quality standards it introduces, but also for the emphasis on active management of waters and on engagement with the wider public on a range of issues. We must therefore not only redouble our efforts to improve water quality, but also address the human element of the picture, getting across key messages regarding safety, water quality and amenity at the sites visited by the public. To do so, we will need to deepen and widen our relationships with existing partners, and identify new participants that can help us bring clear and distinctive messages to the public.

Warning bathers about potential problems with water quality is a key feature of the revised Directive, and as a result of the work done to date in Scotland we find ourselves at the forefront of public information provision. Using electronic signs to inform bathers about water quality is a major advance and one which has seen us working at our best – in partnership with others on innovative and creative solutions to issues.

We recognise that many challenges lie ahead, but commit ourselves fully to building upon the successes of the past four years, towards a future in which Scotland will have cleaner and healthier bathing waters, to be enjoyed by all.

### **ROSS FINNIE MSP**

Minister for Environment  
and Rural Development

### **RHONA BRANKIN MSP**

Deputy Minister for Environment  
and Rural Development

## **Contents**

<b>INTRODUCTION</b>	<b>1</b>
<b>MARCH 2002 TO MARCH 2006 – PROJECTS UNDERTAKEN AND PROGRESS MADE</b>	<b>2</b>
<b>BATHING WATER QUALITY PREDICTIONS</b>	2
<b>FARM PILOT PROJECTS</b>	3
<b>BIOGAS AND COMPOSTING PROJECT</b>	3
<b>SEPA ENVIRONMENTAL IMPROVEMENT PLANS</b>	4
<b>SCOTTISH WATER INVESTMENT</b>	4
<b>PROJECT OFFICER IN WATER RESOURCE MANAGEMENT</b>	4
<b>CLEAN COAST SCOTLAND</b>	5
<b>BATHING WATER REVIEW PANEL</b>	5
<b>RESULTS OF BATHING WATER MONITORING</b>	6
<i>Table 1: Scottish compliance rates since 1995</i>	6
<i>Table 2: EU Member States' 2004 compliance rates</i>	8
<b>REVISED BATHING WATER DIRECTIVE – THE CHALLENGES AHEAD</b>	<b>9</b>
<b>MEETING THE ADMINISTRATIVE CHALLENGES</b>	<b>10</b>
<b>TRANSPOSITION INTO SCOTS LAW</b>	10
<b>IDENTIFICATION OF BATHING WATERS</b>	10
<b>DEFINING THE BATHING SEASON</b>	11
<b>ESTABLISHING A MONITORING CALENDAR</b>	11
<b>MEETING THE WATER QUALITY CHALLENGES</b>	<b>12</b>
<b>IDENTIFYING RISKS TO COMPLIANCE</b>	12
<b>POINT SOURCE POLLUTION</b>	13
<b>DIFFUSE POLLUTION FROM AGRICULTURE</b>	13
<b>SCOTTISH WATER INVESTMENT</b>	14
<b>BATHING WATER QUALITY SAMPLING</b>	14
<b>LITTER POLLUTION</b>	15
<b>MEETING THE PUBLIC PARTICIPATION AND INFORMATION-PROVISION CHALLENGES</b>	<b>16</b>
<b>STATUTORY DISSEMINATION OF INFORMATION</b>	16
<b>ELECTRONIC SIGNAGE</b>	16
<b>PROVIDING INFORMATION DURING POLLUTION INCIDENTS AT SITES WITHOUT ELECTRONIC SIGNAGE</b>	17
<b>INFORMATION CONCERNING NON-DESIGNATED WATERS</b>	17
<b>PUBLIC PARTICIPATION</b>	17
<b>CONCLUSION AND KEY POLICIES</b>	<b>18</b>
<b>ANNEX A: A TIMETABLE FOR IMPLEMENTATION</b>	<b>19</b>

## **Introduction**

1. Since the publication of **Scotland's Bathing Waters *A strategy for improvement*** in March 2002, there have been many changes to the environment in which bathing waters are operated.
2. At that time, just 85% of Scotland's bathing waters had met European standards in the previous two years. In two of the last three, the compliance rate has been 95%.
3. In 2002, sewage-related pollution was believed to be the major cause of bathing waters' failure to comply with the required standards. Significant investment in modernising Scotland's public sewerage infrastructure has eliminated or reduced many of these risks. Diffuse pollution (run-off from many individual sources), mainly from agriculture, is now believed to be the main risk to compliance.
4. The revision of the European Bathing Waters Directive was in its infancy in 2002. More than five years after the European Commission announced plans to revise the Directive, a revised Bathing Water Directive entered into force on 24 March 2006. This revision requires us to meet stricter bacteriological standards in the future and sets new requirements for the provision of information on water quality to the public, as well as for engaging public participation in matters relating to bathing waters. The revised Directive can be found on the European Commission's website at [http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2006/l\\_064/l\\_06420060304en00370051.pdf](http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2006/l_064/l_06420060304en00370051.pdf).
5. This document attempts to address these changes, and to set out a framework for meeting the challenges associated with implementing the revised Bathing Water Directive.



## **March 2002 to March 2006 – Projects undertaken and progress made**

6. In any forward-looking strategy, it is important to note activities undertaken in the past, and the lessons to be learned from them. In this regard, Scotland is fortunate, having earned the right to consider itself a leader in the fields of water quality prediction and public participation. Scotland has also undertaken several trials of methods to reduce diffuse pollution from agriculture.

### **Bathing water quality predictions**

7. Without doubt the most eye-catching and well-known of all the projects undertaken in Scotland over this period has been the introduction of electronic signs at some of our bathing waters.
8. In 2003, SEPA created a model for predicting bathing water quality. As a result, remote-controlled electronic signs were installed at five Scottish bathing waters (Ayr, Irvine, Prestwick, Saltcoats and Troon) to enable bathers to receive up-to-date, real-time information on predicted water quality.
9. This was a great improvement in bathing water management. Previously, the public could only be warned about poor water quality once samples had been taken and processed. By the time results were available, the pollution may often have already disappeared. Predictions are now available daily throughout the bathing season.
10. In 2004, the signs were extended to a further five sites (Aberdeen, Brighthouse Bay, Ettrick Bay, Portobello Central and Sandyhills). Extensive monitoring was undertaken to verify predictions, and to adjust the model where necessary. Predictions proved to be 98% accurate or precautionary. The 2003 and 2004 reports are available on the Scottish Executive website ([www.scotland.gov.uk/Topics/Environment/Water/15561/15068](http://www.scotland.gov.uk/Topics/Environment/Water/15561/15068)).
11. The trial period was a success, and ownership of the signs was passed to SEPA in 2005. The operation is now being continued as core SEPA work. Despite other attempts elsewhere to build such a system, this is still believed to be the most advanced of its kind, and measures to increase further the accuracy of the model are afoot. Not all sites may be suitable for such prediction work, nor in some areas would such signs be welcome, but this development raises new possibilities for informing the public and is one example of the ways in which we can meet the challenges of the revised Directive.

## **Farm pilot projects**

12. Trial measures have been undertaken in four different catchments throughout Scotland (Ettrick Bay – Bute, Cessnock – Ayrshire, Nairn and Sandyhills – Dumfries and Galloway) with the aim of assessing which types of measure are effective at reducing pollution to rivers and streams, and ultimately, to bathing waters. These trials were funded by the Scottish Executive, but have been well supported by SEPA and the National Farmers Union Scotland (NFU Scotland), as well as the individual farmers involved. A number of different methods of keeping cattle from having direct access to water courses and of preventing clean water mixing with dirty water were trialled, including the fencing-off of watercourses, construction of cow tracks, bridged crossings over watercourses and roofed steadings.
13. Initial evaluation has shown that careful targeting of fencing has a measurable effect on water quality, and intensive steading measures on Bute have also shown water quality improvements. Encouragingly, Ettrick Bay on Bute complied with the mandatory water quality standards of the Bathing Water Directive in 2005, for the first time since its designation.
14. The ability to balance the benefits of such measures with the costs involved will be a major factor in encouraging the wider uptake of these measures. The Executive's diffuse pollution strategy (see paragraphs 57 to 62) outlines our approach to this subject and possible grant arrangements. In the meantime, these projects have provided valuable experience in how to approach some of these problems, which whilst not unique to Scotland, are certainly more keenly felt here than in many other European countries. Reports about the project and the subsequent monitoring are available on the Scottish Executive website ([www.scotland.gov.uk/Topics/Environment/Water/15561/15068](http://www.scotland.gov.uk/Topics/Environment/Water/15561/15068)).

## **Biogas and composting project**

15. This project examined the potential of using anaerobic digestion and aerobic composting as tools to reduce the bacterial content of slurry and manure. Initial results show significant reductions. This means that spreading the resulting products on the land would present a reduced risk to water quality.
16. Costs will again need to be set against the benefits in determining whether this type of treatment can be a viable measure within the wider rural economy. A final project report (to be published later in 2006) will examine sustainability and economic issues.

## **SEPA environmental improvement plans**

17. SEPA have drawn up environmental improvement plans to tackle pollution at some of the bathing waters most at risk from non-compliance. These have involved intensive site visits and investigation of sources of pollution, with appropriate subsequent action taken to remedy the situation.
18. As part of that work, SEPA's agricultural team also visited over 2,000 farms to ensure compliance with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003 and to promote good practice set out in the Prevention of Environmental Pollution From Agricultural Activity (PEPFAA) Code, agreed with NFU Scotland and other parties.
19. This programme of inspections generated positive responses from farm businesses and resulted in a significant number of remedial works being carried out, resulting in the elimination or reduction of a large number of risks to bathing water compliance.

## **Scottish Water investment**

20. The Scottish Executive authorised the investment of £1.8 billion by Scottish Water to upgrade the public sewerage infrastructure in the period covered by the Quality and Standards 2 programme, from April 2002 to March 2006.
21. During this period, Scottish Water has delivered a number of improvements to sewerage systems, and most of the schemes designed to reduce the impact of sewage on bathing water quality have been completed. The next Scottish Water investment programme, Quality and Standards 3, which runs from 2006-2014, will continue works to maintain and improve the quality of bathing waters.

## **Project Officer in Water Resource Management**

22. The Project Officer in Water Resource Management post (supported by the Scottish Executive, Scottish Natural Heritage (SNH), Scottish Agricultural College, WWF Scotland, SEPA, NFU Scotland and the Farming and Wildlife Advisory Group) was created in 2001.
23. The postholder has recently been involved in the delivery and updating of the Four Point Plan for agriculture (<http://www.sac.ac.uk/consultancy/fbs/publications/fourpointplan/>), as well as numerous other activities designed to help farmers prevent diffuse pollution to water bodies, including bathing waters. Most recently, the Farm Soils Plan (<http://www.sac.ac.uk/consultancy/fbs/publications/fsp/>) was produced by the postholder and steering group.

## **Clean Coast Scotland**

24. Clean Coast Scotland is currently funded by Keep Scotland Beautiful, while Scottish Water and Scottish Water Solutions previously contributed. Over this period, the Scottish Executive has continued its participation in this forum, which counts amongst its members SEPA, Scottish Water, CoSLA, SNH, environmental Non Governmental Organisations and various industrial sectors.
25. This partnership approach has facilitated communication and understanding amongst stakeholders – often with conflicting priorities. The experience of working with this group has again demonstrated the value of stakeholder participation, and the Scottish Executive is keen to see its continuation.

## **Bathing Water Review Panel**

26. The Bathing Water Review Panel is funded by the Scottish Executive and chaired by Clean Coast Scotland. It consists of representatives from the Association of Scottish Community Councils, CoSLA, Scottish Environment LINK, Keep Scotland Beautiful, Scottish Executive, SEPA, SNH, Tourism Environment Forum and The Crown Estate.
27. The panel met for the first time in its current guise in 2005 to consider applications from councils and community groups for the designation of six new bathing waters, and to consider whether or not the six sites with the lowest recorded usage in 2003 should continue to be designated bathing waters.
28. The Deputy Minister for Environment and Rural Development accepted most of the recommendations of the Panel, and as a result three new bathing waters will be designated in 2006 (Broughty Ferry, Largs Pencil Beach and Longniddry). The Deputy Minister has agreed to defer the decision of whether or not to de-designate five sites until after a further review in 2006.
29. The Bathing Water Review Panel is currently funded to continue its work until 31 March 2008.



## Results of bathing water monitoring

30. Bathing water monitoring against the standards of the Bathing Water Directive has produced the following results since 1995:

*Table 1: Scottish compliance rates since 1995*

Year	Passes (Guideline)	Passes (Mandatory)	Fail	Total
1995	5 (22%)	14 (61%)	4 (17%)	23
1996	5 (22%)	16 (70%)	2 (9%)	23
1997	5 (22%)	13 (57%)	5 (22%)	23
1998	3 (13%)	9 (39%)	11 (48%)	23
1999	26 (43%)	27 (45%)	7 (12%)	60
2000	24 (40%)	27 (45%)	9 (15%)	60
2001	24 (40%)	27 (45%)	9 (15%)	60
2002	24 (40%)	31 (52%)	5 (8%)	60
2003	39 (65%)	18 (30%)	3 (5%)	60
2004	32 (53%)	24 (40%)	4 (7%)	60
2005	33 (55%)	24 (40%)	3 (5%)	60

31. It is immediately apparent that over the last decade – even taking into account the distorting effect of the designation of 37 additional waters in 1999 – there has been a significant improvement in the compliance rate of Scottish bathing waters. The days of failure rates being consistently in double figures (or even 48% in 1998) appear to be in the past.
32. Since the implementation of **Scotland’s Bathing Waters A strategy for improvement** in 2002, failure rates have been relatively stable at 5-8%. Moreover, average bacterial (faecal coliform) concentration for all samples taken at all designated sites is now less than half of levels in 2000.

33. Table 2 compares Scotland's results against those of the other Member States of the European Union to have reported results for 2004 (the latest year for which figures are available).<sup>1</sup>

---

<sup>1</sup> N.B. totals for each country may not equal 100%, as some countries report certain waters as having been insufficiently sampled to classify, or as being subject to a bathing prohibition.

Table 2: EU Member States' 2004 compliance rates

Country <sup>2</sup>	Coastal Water				Fresh Water			
	Total	Guideline	Mandatory	Fail	Total	Guideline	Mandatory	Fail
Austria	-	-	-	-	267	83.1%	15.8%	1.1%
Belgium	39	25.6%	71.8%	2.6%	72	40.3%	33.3%	18.1%
Czech Republic	-	-	-	-	176	38.6%	10.8%	12.0%
Cyprus	100	81.0%	5.0%	5.0%	-	-	-	-
Denmark	1,138	93.0%	3.8%	2.6%	111	89.2%	7.2%	0.9%
Estonia	8	37.5%	37.5%	12.5%	15	53.3%	7.3%	6.7%
Finland	103	51.2%	35.9%	1.9%	285	75.4%	23.5%	1.1%
France	1,872	73.9%	21.8%	4.3%	1,406	58.7%	36.2%	5.1%
Germany	390	91.3%	7.4%	1.0%	1,561	83.0%	12.1%	3.1%
Greece	1,965	97.6%	2.3%	0.1%	4	100.0%	0.0%	0.0%
Italy	4,884	92.3%	2.4%	0.8%	779	58.3%	9.6%	0.7%
Lithuania	14	21.4%	25.7%	0.0%	53	26.4%	58.5%	3.8%
Luxembourg	-	-	-	-	20	50.0%	15.0%	20.0%
Netherlands	82	93.9%	3.7%	0.0%	550	62.9%	35.3%	0.9%
Portugal	400	86.5%	11.0%	2.5%	73	21.9%	75.4%	2.7%
Ireland	122	87.7%	9.8%	2.5%	9	88.9%	11.1%	0.0%
<b>Scotland</b>	<b>58</b>	<b>57.0%</b>	<b>38.0%</b>	<b>5.0%</b>	<b>2</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>
Slovenia	19	78.9%	10.6%	10.5%	18	27.8%	27.8%	38.9%
Slovakia	-	-	-	-	67	14.9%	7.5%	43.2%
Spain	1,826	89.5%	9.4%	0.8%	170	44.1%	50.6%	1.2%
Sweden	382	76.2%	22.0%	1.6%	412	76.9%	21.4%	0.7%
United Kingdom <sup>3</sup>	562	79.4%	18.3%	2.3%	11	36.4%	63.6%	0.0%
<b>Average</b>	-	<b>73.6%</b>	<b>18.7%</b>	<b>3.1%</b>	-	<b>53.9%</b>	<b>29.8%</b>	<b>7.6%</b>

34. By comparing Scotland's results in this manner, we can see that despite very significant improvement and 'catching-up', Scotland remains amongst the poorer performers in Europe, particularly when the newer Member States' results are disregarded. However, it is important to remember the vast improvement that we have witnessed – Scotland's results are now at least comparable to those of other countries.

35. It is also important to remember that compared to its European partners, Scotland has a particular set of circumstances which make improving bathing water quality more challenging. The relatively low levels of ultraviolet radiation from sunlight (which kills bacteria), compared, for example, to sunnier Mediterranean countries, the high levels of rainfall, intensive livestock farming and topology combine to make the high pass rates enjoyed by countries like Greece extremely unlikely in Scotland.

<sup>2</sup> Hungary, Latvia, Malta and Poland did not provide the European Commission with bathing water results for 2004

<sup>3</sup> UK figures include the results from England, Scotland, Northern Ireland and Wales

## **Revised Bathing Water Directive – The Challenges Ahead**

36. On the 24 March 2006, the revised Bathing Water Directive entered into force. A product of more than five years of proposals, counter-proposals and negotiations, the end result presents many challenges for EU Member States. Standards are significantly tightened, timescales are short, there are new requirements for public participation in decision-making, and a raft of information must be actively disseminated to the public.

37. The following section of this document sets out the Scottish Executive's framework for meeting these challenges. It is divided into three sub-sections:

- Meeting the administrative challenges
- Meeting the water quality challenges
- Meeting the public participation and information-provision challenges.



## **Meeting the administrative challenges**

### **Transposition into Scots Law**

38. The revised Bathing Water Directive stipulates that Member States have until 24 March 2008 to transpose its requirements into national law. This is a relatively short period of time in which to produce and enact a piece of legislation, but is not in itself expected to pose a significant problem.
39. The Bathing Water Directive does not allow a great deal of flexibility in implementation by individual Member States. As such, it is anticipated that transposition will largely be a straightforward adoption of the Directive's requirements. Areas where debate is likely include the possibility of delegating rights and responsibilities to national agencies and to local authorities, and in establishing links with The Water Environment and Water Services Act (Scotland) 2003 and The Water Environment (Controlled Activities) (Scotland) Regulations 2005.
40. In transposing the Directive, the Scottish Executive will continue to work closely with key stakeholders and will:
  - Produce draft regulations to transpose the Bathing Water Directive by March 2007;
  - Complete a consultation on those draft regulations by October 2007; and
  - Lay the regulations before Parliament before the end of 2007, with them coming into force shortly afterwards.

### **Identification of bathing waters**

41. In addition to its transposition, other administrative challenges are contained within the requirements of the Directive. From 2008, Member States will be required to identify all bathing waters annually prior to the start of the bathing season. This is a change to the current situation in Scotland, whereby identified waters are considered to be bathing waters until further notice.
42. The Bathing Water Review Panel met in 2005 and will meet again in 2006 and 2007 to review Scotland's currently identified bathing waters. The Panel has been asked to invite applications from all sections of the community for new identifications and to review the designation of those bathing waters with the lowest recorded usage (in both the revised and the current Directive, the major determining factor in defining a bathing water is usage).
43. It is expected that as a result of this review process, any waters which are not currently identified as bathing waters, and which should be identified as bathing waters, must be identified prior to the start of the 2008 bathing season. It is also expected that as a result of this process, any currently identified bathing waters which do not meet the stipulated criteria will be de-designated prior to the start of the 2008 bathing season.
44. Therefore, it is not anticipated that the Bathing Water Review Panel would continue to meet in its present form beyond its currently funded lifespan (until 31 March 2008). Instead, such a panel could be asked to conduct further reviews to coincide with the publication of the second, third and fourth River Basin Management Plans required by the Water Framework Directive, in 2015, 2021 and 2027.

45. To meet public participation requirements (see section ‘*Revised Bathing Water Directive – Meeting the public participation and information provision challenges*’ below), the Scottish Executive recognises the need to develop a mechanism to enable the submission of, and to review applications to alter the list of identified bathing waters which may reasonably arise from time to time between the periodic reviews set out in paragraph 44.

### **Defining the bathing season**

46. The revised Directive requires that the length of the bathing season shall be annually defined before the start of the bathing season from 2008. The Scottish Executive will review the length of the current bathing season (1 June – 15 September) in conjunction with SEPA and other stakeholders. Any proposal to alter the current bathing season will be included in the consultation on draft regulations referred to in paragraph 40.

47. The bathing season is defined by the Directive as “the period during which large numbers of bathers can be expected”. It is not anticipated that this period will alter significantly in a short time. Bather numbers will drive reviews of the list of identified bathing waters. It would therefore seem sensible to use that same review to consider whether or not we need to vary the length of the bathing season. Doing this work at the same time would allow us to make a single announcement regarding both the list of sites and the length of the season.

### **Establishing a monitoring calendar**

48. It is a requirement of the revised Directive that a monitoring calendar for each bathing water shall be established before the start of each bathing season, and for the first time before the start of the 2008 bathing season. As the established national competent authority for sampling these waters is SEPA, it is likely that the monitoring calendar will be considered to be a matter for SEPA, and be a delegated responsibility in the draft regulations referred to in paragraph 40 above.



## **Meeting the water quality challenges**

49. The revised Bathing Water Directive significantly increases the water quality standards which we need to meet. Four new classifications are introduced – *Excellent*, *good*, *sufficient*, and *poor*, based on concentrations of bacteria (intestinal enterococci and *Escherichia coli*) found in the water. The *good* standard is broadly equivalent to the existing *guideline* standard.
50. Member States are required to ensure that by 2015 all bathing waters are of at least *sufficient* standard, and that appropriate measures are taken to increase the numbers of bathing waters classified as *excellent* or *good*. Classification is based on four years' worth of data, which means that results from 2012 onwards will be used in the 2015 classification.
51. Applying data from recent years against these criteria suggests that up to one-third of currently designated bathing waters in Scotland might be classified as *poor*. This is not only dependent on the quality of the water, but also on whether or not appropriate management actions are taken. A number of samples can be discounted in each year – the revised Directive allows up to 15% of samples to be disregarded – provided that the pollution is short-term, the failure was predicted and that authorities advised bathers appropriately. Most bathing waters which currently meet the *guideline* standards of the existing Directive are expected to meet the criteria for classification as *excellent* under the new Directive.
52. The area most at risk of having its bathing waters classified as *poor* is the South-West of Scotland. Whilst this can be partly ascribed to sewers in need of upgrading, a larger, and less tractable problem is that of diffuse pollution from agriculture. This is currently a particular problem in the South-West, where dairy farming is relatively intense.
53. The Scottish Executive intends to use measures and mechanisms which are either already in place or are currently being developed to tackle these problems.

## **Identifying risks to compliance**

54. As a first step, and at an early stage in the process of implementing the new Directive, SEPA will be asked to identify risks to compliance at each bathing water. It is important to do this quickly, so that these risks can be included in the interim report of significant water management issues in each river basin district. This report is due to be published in 2007 as part of the River Basin Management Planning process associated with the Water Framework Directive.
55. This report will inform River Basin Management Plans and the bathing water profiles required by the revised Bathing Water Directive (see section '*Revised Bathing Water Directive – Meeting the public participation and information provision challenges*').

## **Point source pollution**

56. The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (CAR) come into force on 1 April 2006, and will be the primary means by which activities that may influence water quality will be authorised. Bathing waters are recognised as “protected areas” under the CAR regime, and therefore SEPA will need to take risks to compliance into consideration when determining applications for authorisations of any point sources of pollution.

## **Diffuse pollution from agriculture**

57. The Scottish Executive is currently consulting on measures to reduce diffuse pollution from agriculture. We are proposing that national General Binding Rules be introduced to ensure that all farmers adopt a basic level of good practice. These General Binding Rules will be mainly drawn from existing guidelines, and so should prove to be a light-touch form of regulation for those farmers who have already adopted this good practice.

58. Where the national GBRs prove to be insufficiently effective at reducing diffuse pollution, then further targeted measures may be taken by requiring higher levels of authorisation under the CAR regime. In particular, we are also proposing that from 2008, targeted General Binding Rules (GBRs) will be applied in areas where there is a high risk of pollution.

59. However, measures to reduce diffuse pollution will not just be regulatory. The content of tier three of the Executive’s Land Management Contracts scheme for farmers is due to be finalised in 2006. This should contain some measures to encourage farmers to invest in measures designed to reduce diffuse pollution. The results of the recent pilot projects will be valuable here. However, it is likely that the funds available for such schemes will be limited.

60. Diffuse pollution from agriculture is also a cause for concern with regards to compliance with other directives, such as the Water Framework Directive and the Nitrates Directive. Farmers will continue to be encouraged to adopt good practice, as outlined in documents such as the Four Point Plan, the Farm Soils Plan and the PEPFAA Code (<http://www.scotland.gov.uk/Topics/Agriculture/Environment/PEPFAA/Intro>).

61. Further evaluation of the various farm pilot projects is ongoing. This will provide data on the extent to which measures tested in these projects are effective.

62. The biogas and composting project has also modelled various scenarios for using this technology, including farm based plants and community based plants in both a traditional grazing scenario and a zero grazing scenario. Early indications are that adopting a zero grazing approach might provide the necessary economic conditions to make the biogas plants viable. Careful consideration of the conclusions of the research will be necessary.

## Scottish Water investment

63. In February 2005, Scottish Ministers announced the objectives they wish Scottish Water to meet in the next investment programme, Quality and Standards 3. This Programme will run from 2006 to 2014 and will continue the work of modernising and improving the water and sewerage services in Scotland. These objectives include improvements to some 64 km of bathing waters to meet the microbiological standards of the Bathing Water Directive 76/160/EC. The Ministers' statement can be found on the Executive's website at <http://www.scotland.gov.uk/Topics/Environment/Water/17583/Investment>.
64. The requirements of the revised Directive were not agreed at the time of planning the Q&S 3 investment programme. With the new requirements in mind, it is likely that the Scottish Executive, SEPA and Scottish Water will need to consider the implications for the water industry. Once this has been done, it will then be possible to determine if any changes need to be made to Ministers' objectives for the second part of the Q&S 3 programme post-2010.

## Bathing water quality sampling

65. The revised Directive permits a certain amount of flexibility in sampling. A sample must be taken no later than four days after the date specified in the monitoring calendar. Many of Scotland's bathing waters are at the highest risk of pollution during and immediately following periods of rainfall. This flexibility allows sampling times to be delayed during such periods, when it is most unlikely that anyone will be bathing. It also means that sampling reflects the quality of the water actually enjoyed by bathers. It is the intention of the Scottish Executive that this flexibility should be used where necessary. However, this will present resourcing challenges for SEPA, as previous sampling has used a fixed timetable of visits to bathing waters. SEPA are undertaking a trial of flexible sampling in 2006, to better understand the issues that may result from introducing these changes.
66. It is required that following the classification of a bathing water as *poor*, the causes of the failure to achieve *sufficient* status shall be identified and addressed. To this end, following any such classification, SEPA shall be asked to investigate the causes, and to devise and implement an improvement plan. It is anticipated that this will be done within the measures described in the relevant Sub-Basin Management Plan.

## **Litter pollution**

67. Whilst the criteria relating to the classification of bathing waters are bacteriological, other parameters must also be considered in the management of the bathing water. Amongst these considerations is the presence of litter pollution. This, of course, refers to its presence in the water itself. However, it would be naïve to ignore the direct relationship between a bathing water and the associated beach.
68. Responsibility for controlling litter on beaches is, in most cases, the responsibility of local authorities. It is important to recognise that these local authorities are legally required – and indeed are funded – to carry out this task, and that any other scheme which may come into being should not replace this obligation.
69. Nevertheless, it is equally important to recognise the important role which the local community has to play in this regard. This role can be positive – taking ownership of and responsibility for their local environment - or it can at times be destructive – contributing to pollution of the bathing water and its environs.
70. The Scottish Executive will explore the possibility of devising a scheme to encourage the involvement of local community groups by providing modest levels of funding in exchange for undertaking activities designed to improve the environment surrounding their local bathing water, including reducing levels of litter.
71. In considering such a scheme, the Scottish Executive will look to the experiences of schemes currently in existence, such as the Coastcare programmes in Wales and Australia, the Green Coast initiative in Wales, the Marine Conservation Society's Adopt-A-Beach scheme, the Atlantic Beach Guardian programme in Canada, and others from around the world.



## **Meeting the public participation and information-provision challenges**

72. The revised Bathing Water Directive requires some specific elements of public participation, and that some very specific pieces of information are disseminated to the public at large. More importantly, however, it seeks to nurture a culture of openness and an ethos of public participation.

### **Statutory dissemination of information**

73. Article 12.1 of the revised Directive sets out information which should be actively and promptly made available in the near vicinity of each bathing water. It is anticipated that SEPA will be delegated responsibility for providing that information to local authorities and beach operators. It is also anticipated that responsibility for disseminating this information shall be given to these local authorities and beach operators. However, the Scottish Executive is aware that there may be instances (for example at remote sites) in which it makes more sense for SEPA, or another body, to display the information. In these cases, agreements between relevant parties will be sought.

74. Article 12.2 of the revised Directive sets out information which should be actively and promptly disseminated through “*appropriate media and technologies, including the internet*”. SEPA already use a range of media, including the internet, text messaging and recorded telephone information lines to disseminate some of the required information. It is anticipated that SEPA shall be made responsible for continuing this dissemination of information, and expanding it as necessary to comply with the requirements of the Directive.

75. The revised Directive states that this information should be made available in several languages, where appropriate. Consideration will be given as to whether or not and when this may be appropriate in the consultation referred to in paragraph 40.

### **Electronic signage**

76. The Scottish Executive recognises the value of the electronic signs which display real-time bathing water quality predictions, and intends to renew funding for the signage at the existing ten sites beyond 2007.

77. It is also recognised that management measures are an important element of the new Directive. These measures include taking action to prevent bathers’ exposure to poor water quality, and are a prerequisite to being able to discount samples taken during short-term pollution incidents.

78. These electronic signs are believed to be an effective method of taking such action. Subject to the funding being available, the Scottish Executive intends to install new signs at bathing waters where the profile indicates that they are suitable for the predictive model, at risk of being as classified as *poor*, and can reasonably be expected to attain a *sufficient* classification. This is anticipated to apply to approximately twenty sites.

79. The Scottish Executive and SEPA are currently in discussions with the Maritime and Coastguard Agency, and hope also to be able to display targeted safety messages on these signs as appropriate.

## **Providing information during pollution incidents at sites without electronic signage**

80. Where short-term pollution occurs at bathing waters and electronic signage is not available, there is still a requirement to take appropriate management measures to prevent bathers' exposure to poor water quality. It is anticipated that local authorities or other beach operators will be required to design a contingency plan for such situations. It is expected that this will be done in consultation with SEPA, and as in paragraph 73, arrangements may be made for elements of the plan to be effected by SEPA or other bodies. However, ultimate responsibility for these measures must rest with the local authority or other beach operator.

## **Information concerning non-designated waters**

81. Implementing the revised Bathing Water Directive will represent a significant burden on available resources. Improving bathing waters is and will remain the Scottish Executive's priority over improving other, non-designated waters.

82. However, other waters which do not meet the criteria necessary to be defined as bathing waters are also important to their local communities. Indeed, under the terms of the new Directive – which states that permanent advice against bathing shall be issued at any bathing water which is classified as *poor* for five consecutive years – there may be some waters which are not designated bathing waters, but at which there remains significant levels of usage, despite advice to the contrary.

83. Once implementation is underway, and a clearer indication of available resources is apparent, the Scottish Executive shall consider asking SEPA to create and disseminate profiles indicating risks to water quality at certain non-designated waters.

## **Public participation**

84. The revised Bathing Water Directive contains the general requirement that “*Member States shall encourage public participation in the implementation of this Directive... in particular, the establishment, review and updating of lists of bathing waters*”.

85. As stated in paragraphs 44 and 45, the primary mechanism for reviewing the list of bathing waters in Scotland after 2008 will be periodic reviews, likely to be by a panel constituted in a similar fashion to the existing Bathing Water Review Panel, supplemented by a mechanism for reviewing any applications for designated status which may reasonably arise between formal reviews.

86. Local community groups and councils will continue to be encouraged to submit applications for designation. It is intended that these applications will be advertised through appropriate media, including the internet, and that suggestions, remarks or complaints for the panel to consider will be encouraged.

87. More general participation in the implementation of the Directive can be achieved through the support given to community groups under the scheme referred to in paragraph 70. It is also recognised that insufficient use has hitherto been made of existing networks through which public participation is already encouraged, such as the Scottish Coastal Forum, and that this situation should be reversed.

## **Conclusion and key policies**

88. Scotland's bathing waters have improved. Rates of compliance with the Bathing Waters Directive which were once far below the European average have now increased to 95%. Sewage is no longer the major risk to compliance, projects to assess the effectiveness of measures to reduce diffuse pollution from agriculture are showing early signs of success and electronic signage at ten sites warns bathers of predicted poor water quality.
89. However, the revised Directive will increase minimum standards and make compliance much harder to achieve. There are also additional requirements for the active management of bathing waters, dissemination of information and public participation.
90. We will continue to discuss with key stakeholders how best to implement the requirements of the new Directive, and will consult on draft regulations by autumn 2007.
91. In order to meet the water quality standards contained within the new Directive:
- Scottish Water will be investing in sewerage systems between now and 2014 in order to further reduce the risk of sewage-related pollution to bathing waters.
  - Risks to bathing water compliance shall be included in the River Basin Management Planning process associated with the Water Framework Directive.
  - SEPA will consider risks to compliance when granting authorisations for point sources of pollution under the Controlled Activities Regulations (CAR).
  - We propose General Binding Rules for agriculture, and may include measures in tier three of the Land Management Contract scheme to reduce diffuse pollution.
  - Where these are insufficient, SEPA may require registration and further measures under CAR.
92. To meet the public participation requirements of the revised Directive, we shall:
- Continue to encourage local community groups to submit applications for the designation of waters as bathing waters. Applications will be made available for general comment on the internet, and will be screened by a stakeholder group likely to be similar to the current Bathing Waters Review Panel.
  - Explore the possibility of devising a scheme to encourage local community groups to be more active by making modest levels of funding available in exchange for undertaking activities designed to improve the environment surrounding their local bathing water, including reducing levels of litter.
  - Make more use of existing networks such as the Scottish Coastal Forum to engage stakeholders with an interest in bathing waters.
93. To meet requirements concerning the provision of information, we intend to:
- Continue funding for the existing electronic signs beyond 2007, and seek to extend the signage to other sites where appropriate.
  - Provide for local authorities to receive water quality information from SEPA and require them to disseminate this information as appropriate.
  - Require SEPA to extend the range of information available on its website and other media.

## **ANNEX A: A timetable for implementation**

<b>Year</b>	<b>Date</b>	<b>Activity</b>
<b>2006</b>	1 April	Controlled Activities Regulations come into effect
	Bathing season	Trial of flexible sampling regime
<b>2007</b>	March	Draft regulations produced and consultation commences
	October	Consultation on regulations completed
	End	Regulations laid before Parliament
		Interim report into significant water management issues
<b>2008</b>	24 March	Deadline for transposition of Directive into national law
	31 March	Funding for Bathing Water Review Panel ceases
	May	First identification of bathing water list
	May	First definition of length of bathing season
	May	First establishment of monitoring calendar
	Mid	Consultation on draft River Basin Management Plan
		General Binding Rules for agriculture applied
<b>2009</b>	December	First River Basin Management Plan published
<b>2011</b>	February	Deadline for establishing bathing water profiles
<b>2012</b>	Bathing season	Start of four-year assessment period for first classification
<b>2013</b>	Bathing season	Deadline for first dissemination of information in Article 12.1-2
		Review of bathing water list
<b>2014</b>	1 April	Start of Quality & Standards 4 investment period for Scottish Water
<b>2015</b>	September	First classification against standards of new Directive
	September	All bathing waters to be of at least <i>sufficient</i> standard
	December	Second River Basin Management Plan published