

Appendix 3:

Scottish Ministers' Directions on objectives for Scottish Water

WATER INDUSTRY (SCOTLAND) ACT 2002

THE SCOTTISH WATER (OBJECTIVES FOR 1st April 2006 to 31st March 2010) DIRECTIONS 2005

The Scottish Ministers ("Ministers") in exercise of the powers conferred on them by sections 56 and 56A of the Water Industry (Scotland) Act 2002¹, having consulted the Water Industry Commission for Scotland ("the Commission"), Scottish Water and the Convener of the Water Customer Consultation Panels ("the Convener") hereby give the following Directions.

Citation and Interpretation

1(1) These Directions may be cited as the Scottish Water (Objectives For 1st April 2006 to 31st March 2010) Directions 2005 and shall come into force on 3 October 2005.

1(2) In these Directions, any reference to "the Statement" is a reference to the statement by the Scottish Executive "Investing In Water Services: Objectives for 2006-2014" published on 9th February 2005, as set out in the Explanatory Note to these Directions, regarding the objectives Scottish Water is to meet in the period 2006 to 2014.

General

2 (1) No later than 1st April 2006, Scottish Water is directed to -

- (a) publish a report outlining its strategic network capacity and development plans. The format of this report is to be agreed with the Commission. The report shall be updated on an annual basis thereafter; and
- (b) establish, in conjunction with SEPA, a *Memorandum of Understanding on the Impact of Proposed Development on the Public System*. This document will establish clear lines of communication between Scottish Water and SEPA to ensure that Scottish Water's arrangements for identifying assets at risk of overload and SEPA's approach to identifying watercourses at risk of environmental degradation are integrated to maximise the available capacity for new development across the country.

2 (2) In the period 1st April 2006 to 31st March 2010², Scottish Water, in the exercise of its core functions, is directed to deliver the essential objectives specified in Schedule 1 to these Directions;

2 (3) To the extent that the Commission determines that they can be delivered efficiently and without projected charges to customers in the period to 2010 rising by more than the levels of inflation, Ministers require Scottish Water to -

- (a) deliver as many of the desirable objectives in the order specified in Schedule 2 to these Directions as can be delivered within the limits set by the Commission as regards such objectives in such period; and

- (b) plan and prepare for the delivery of the essential and desirable objectives specified in the Statement which are referable to the period 2010-2014.

¹ (asp3), as amended.

² This is the period specified by the Scottish Ministers under section 29 B (2) of the Water Industry (Scotland) Act 2002.

2 (4) These Directions, together with the Schedules and Explanatory Note, thereto are subscribed as follows-

It is signed by Dr Andrew Scott, Head of Division,
Scottish Executive Environment and Rural
Affairs Department, the Scottish Executive,
At Edinburgh on 28 September 2005 before this
witness:-

.....

Signature of witness.....

Full name of witness.....

Address of witness.....

SCHEDULE 1

ESSENTIAL OBJECTIVES FOR THE PERIOD 1 APRIL 2006-31 MARCH 2010

CAPITAL MAINTENANCE OBJECTIVES³-

1. Scottish Water shall:-

- (a) at a minimum, maintain service standards for customers across Scotland, as measured at 31 March of each year, at the serviceability standards which are set out in Table 1 below;
- (b) establish, in conjunction with the Commission, biennial serviceability targets which will be secured from the delivery of those objectives specified in this Schedule and, as appropriate, Schedule 2; and
- (c) meet the biennial targets of asset performance set under paragraph 1(b) above: the first such target to apply from 31 March 2006.

Serviceability indicators	National Base Position 2006 – 2010 (Annually Measured)
Water Serviceability Indicator	
% Compliant Zones for Iron	83
% Compliant Zones for Manganese	94
No of microbiological (total coliform) failures at water treatment works	90
Number of properties on the low pressure register	12,957
Properties with unplanned interruptions to supply > 12 hours	16,184
Number of burst per 1,000km of mains	204
Wastewater Serviceability Indicator	
Number of properties at risk of internal flooding ⁴	1,603
Number of properties internally flooded due to other causes	366
Number of failing wastewater treatment works ⁵	45
Number of unsatisfactory intermittent discharges ⁶	867
Number of pollution incidents	555
Management & General	
Fleet, Scientific, Property, IT, Telemetry	Maintain to standards to be secured by Q&S 2
Health & Safety Compliance	Secure compliance with all existing & known new legislation
Asset Data	Enhance SW's data to a sufficient level to support the operation of the common framework approach & other aspects of the investment programme

³ See paragraphs 12, 13 and 14 of the Statement

⁴ The number of properties at risk of flooding at least once in ten years.

⁵ Based on the Control of Pollution Act 1974- look up table compliance (see <http://www.sepa.org.uk/guidance/water/index.htm>).

⁶ Control of Pollution Act 1974

STRATEGIC CAPACITY FOR NEW DEVELOPMENT OBJECTIVES⁷-

2. Scottish Water shall -

(a) apply the Memorandum of Understanding referred to in paragraph 2(1)(b) of the Directions in the assessment of the strategic capacity requirements for new development; and

(b) establish a plan, over the period 1st April 2006 to 31st March 2010, to deliver the following level of new 'strategic' capacity⁸ in support of new housing development and the domestic requirements of commercial and industrial developments: up to 40,000 population equivalents (PE) at wastewater treatment works; and up to 16,500 PE at water treatment works.

3 In formulating the investment plan specified under paragraph 2(b) above, Scottish Water and the Commission shall take account of: the General Register Office for Scotland's population projections; the Scottish Executive's household projections; and the SEPA/Scottish Water *Memorandum of Understanding on the Impact of Proposed Development on the Public System*⁹.

4 Scottish Water shall prioritise the delivery of the investment plan specified under 2(b) above in accordance with its quality investment programme, the spatial priorities identified in the National Planning Framework¹⁰, and development priorities identified by local authorities in their Structure and Local Plans.

⁷ See paragraphs 32, 33, 34, 35, 36 and 37 of the Statement.

⁸ Ibid.

⁹ This MoU will be in place for 1 April 2006

¹⁰ National Planning Framework For Scotland, published 1 April 2004.

DRINKING WATER QUALITY AND WATER RESOURCES OBJECTIVES¹¹

5. As regards drinking water quality, Scottish Water shall-
- Further to the Cryptosporidium (Scottish Water) Directions 2003, upgrade water supplies serving 1.5 million people to minimise the risk of non-compliance with the standards set in regulation 4 of the Water Supply (Water Quality) (Scotland) Regulations 2001¹² for trihalomethanes and all other regulatory parameters (except lead) which is to be addressed during the period 2010-2014 (see the Statement, paragraphs 30) as specified by the regulator;
 - Improve disinfection control on water supplies serving 4 million people to improve taste and odour and reduce customer water quality complaints as specified by the regulator; and
 - replace up to 35,000 lead communication pipes as the result of customer driven requests;
- 6 As regards the management of water resources, Scottish Water shall-
- Reduce abstraction and provide increased compensation flows at all drinking water sources in 78 water resource zones as specified by the regulator. This will include all sources potentially affecting Natura 2000¹³ designated sites;
 - Support SEPA in determining the protection measures required for 574 drinking water sources as specified by the regulator;
 - Provide flow metering and recording at 574 drinking water sources as specified by the regulator; and
 - Carry out 20 flood studies on reservoirs following statutory dam inspections and undertake remedial works as necessary as specified by the regulator;
- 7 As regards water quality protection, Scottish Water shall-
- Install backflow prevention devices at 235 waste water treatment works to ensure that these works comply with the Scottish Water Byelaws 2004¹⁴ as specified by the regulator;
 - Comply with incident report recommendations and reduce risk of contamination of water supplies by removing 5,500 cross connections as specified by the regulator; and
 - Develop WHO water safety plans for public drinking water supplies covering 50% of the population as specified by the regulator.

¹¹ See paragraphs 26, 27, 28 and 29 of the Statement.

¹² SI 2001/207.

¹³ European sites designated under the Habitats Directive (see footnote 21) and Birds Directive (see footnote 22)

¹⁴ Signed on behalf of Scottish Water on 13th, and on behalf of the Scottish Ministers on 22nd, both days of July, 2004, and which came into force on 30th August 2004.

ENVIRONMENTAL PROTECTION OBJECTIVES¹⁵-

8 As regards the quality of the water environment, Scottish Water shall-

- Reduce the bacterial load from Scottish Water discharges in 64 km of bathing waters designated regulation 3 of the Bathing Waters (Classification) (Scotland) Regulations 1991 and meet the microbiological standards of the Bathing Water Directive¹⁶ as specified by the regulator.
- Improve capacity at 18 sewage works to comply with existing consent conditions under the Control of Pollution Act 1974, and to meet the anticipated requirements of the Water Environment and Water Services (Scotland) Act 2003¹⁷, and the Water Environment (Controlled Activities)(Scotland) Regulations 2005¹⁸ as specified by the regulator.
- Protect 17 km of waters designated as important UK sites for the Habitats¹⁹ and Birds²⁰ Directives as specified by the regulator;
- Improve the quality of discharges to 50 km of waters designated under regulation 6 of the Surface Waters (Fishlife) (Classification) (Scotland) Regulations 1997²¹ in line with the standards referred to in Article 3 of the Freshwater Fish Directive²² as specified by the regulator;
- Reduce nutrients in sewage discharges affecting 39 km of waters to meet Regulation 5 of the Urban Waste Water Treatment (Scotland) Regulations 1994²³ as specified by the regulator.
- Improve 23 km of surface waters by reducing discharges of oils and other chemicals from contaminated surface water drains to meet the requirements of Article 1 of the Dangerous Substances Directive²⁴ as specified by the regulator;
- Improve the quality of discharges that affect 18 km of shellfish harvesting and production areas designated under Regulation 6 of The Surface Waters (Shellfish) (Classification) (Scotland) Regulations 1997 to move towards and where possible meet the guideline standard specified in Schedule 1 of the same as specified by the regulator; and
- Improve both water and aesthetic quality of 83 km of surface waters currently affected by sewage and debris discharges from sewer networks to comply with Regulation 4 of the Urban Waste Water Treatment (Scotland) Regulations 1994²⁵ as specified by the regulator.

¹⁵ See paragraphs 15, 16, 17, 18, 19 and 20 of the Statement

¹⁶ Council Directive (76/160/EEC) concerning the quality of bathing water.

¹⁷ (asp3) as amended.

¹⁸ SSI 348/2005.

¹⁹ Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, transposed into UK legislation through the Conservation (Natural Habitats & C.) Regulations 1994 and the Nature Conservation (Scotland) Act 2004

²⁰ Council Directive 79/409/EEC on the conservation of wild birds, transposed into UK legislation through the Wildlife & Countryside Act 1981 (as amended), the Conservation (Natural Habitats & C.) Regulations and Nature Conservation (Scotland) Act 2004.

²¹ The Surface Waters (Fishlife) (Classification) (Scotland) Regulations 1997.

²² Council Directive 78/659/EEC on the quality of fresh waters needing protection or improvement in order to support fish life.

²³ SI 1994/2842 (S.144)

²⁴ Council Directive 76/464/EEC on pollution caused by certain dangerous substance discharged into the aquatic environment of the Community.

²⁵ *ibid*

9. As regards waste management, Scottish Water shall-

- Deliver management and monitoring systems at 16 landfill sites, 10 sludge treatment centres and 35 water treatment works to comply with Pollution Prevention and Control (Scotland) Regulations 2000²⁶ as specified by the regulator; and
- Deliver the requirements of the Landfill Directive to contain, monitor and decommission 9 landfill sites specified by SEPA and currently operated by Scottish Water.

INTERNAL SEWER FLOODING OBJECTIVES²⁷-

10 Scottish Water shall ensure that a net reduction of 456 properties at risk from internal sewer flooding at a frequency of once or more than once over a period of ten years is achieved. In establishing such plans for the achievement this objective, Scottish Water shall consider the costs associated with relief measures for any given number of properties and the level of risk of predicted flooding.

MALODOUR OBJECTIVES²⁸-

11 Scottish Water shall take all necessary measures to minimise odour nuisance at a minimum of 14 wastewater treatment works - taking into account the principle of best practicable means. The 14 sites are to be decided by the Scottish Odour Control Steering Group, a forum comprising representatives from the Scottish Executive, Scottish Water, the Commission, local authorities and WCCP's, by reference to those causing the greatest impact and on which agreement exists on the required remedial action.

²⁶ SI 2000/323

²⁷ See paragraphs 46 and 47 of the Statement

²⁸ See paragraphs 41, 42, 43, 44 and 45 of the Statement

SCHEDULE 2**DESIRABLE OBJECTIVES FOR THE PERIOD 1 APRIL 2006-31 MARCH 2010****ENVIRONMENTAL PROTECTION OBJECTIVES²⁹**

1 Scottish Water shall-

- (a) Reduce nutrient levels in sewage discharges affecting a further 12 km of waters to that specified under paragraph of Schedule 1 to these Directions to meet the requirements of regulation 5 of the Urban Waste Water Treatment (Scotland) Regulations 1994³⁰ as specified by the regulator; and
- (b) Improve the aesthetic and water quality of a further 48 km of surface waters to that specified in paragraph 8 of Schedule 1 to these Directions downgraded by sewage and debris discharged from sewer networks to meet the requirements of regulation 5 of the Urban Waste Water Treatment (Scotland) Regulations 1994³¹ as specified by the regulator.

INADEQUATE WATER PRESSURE³²

2 Scottish Water shall establish plans for the achievement of a reduction in the number of properties that are supplied at a pressure of less than one bar by 2,250 properties; and in so making the plans, shall give consideration to the costs associated with improvement measures for any given number of properties, and the likelihood that properties will suffer poor pressure.

UNPLANNED INTERRUPTIONS³³

3 In respect of improving unplanned interruptions, Scottish Water shall deliver a net reduction of 425 in the number of properties affected by unplanned interruptions in non-trunk mains.

²⁹ See paragraphs 23 and 24 of the Statement.

³⁰ Ibid.

³¹ Ibid.

³² See paragraphs 48, 49, 50 and 51 of the Statement.

³³ See paragraphs 52 and 53 of the Statement.

EXPLANATORY NOTE

The following text is the Statement made by Lewis Macdonald, MSP, to the Scottish Parliament on 9th February 2005. It does not comprise part of the Directions.

INVESTING IN WATER SERVICES: OBJECTIVES FOR 2006-2014

THE STATEMENT BY THE SCOTTISH EXECUTIVE

INTRODUCTION

1 On 26 May 2004, the Minister for Environment and Rural Development, Ross Finnie MSP, wrote to the Water Industry Commissioner setting out the arrangements for the next Strategic Review of Charges (SRC). In undertaking the SRC, the Water Industry Commission will determine the level of charges required to fund the water industry in Scotland for the period 2006-2010, taking account of the objectives set by Ministers for Scottish Water, and the principles by which Ministers will require water charges to be levied upon Scottish Water customers.

2 This Annex provides detail in support of the forthcoming Ministers statement in Parliament by the Deputy Minister for Environment and Rural Development, Lewis Macdonald MSP, as regards the objectives that Scottish Water will be required to meet in the period 2006-2014. In accordance with the process set out on 26th May, Ministers require that Scottish Water set out how it plans to meet these objectives in a second draft Business Plan. Subject to enactment of the Water Services etc. (Scotland) Bill, the Executive will confirm that this annex is a direction to Scottish Water under sections 56 and 56A of the Water Industry (Scotland) Act 2002, as amended by section 19 of the Bill.

3 The formulation of Ministers' objectives has drawn upon advice on the investment requirements identified by the Quality and Standards 3 Board³⁴, the responses made to 2 formal public consultations on water services in Scotland³⁵, Scottish Water's Initial Strategic Business Plan, and the findings of detailed customer research³⁶ conducted on behalf of Ministers.

4 In his open letter of 2 December 2004, the Water Industry Commissioner reported his confidence that Scottish Water could be required to undertake a substantial programme of investment with average prices rising at a rate of no more than inflation in that period.

³⁴ The Quality and Standards 3 Board was a stakeholder group set up to advise Ministers of the investment requirements of the water industry in Scotland. Stakeholders included: the industry's regulators – the Scottish Environment Protection Agency (SEPA), the Drinking Water Quality Regulator (DWQR), the Water Industry Commissioner (WIC), and Water Customer Consultation Panels; and other stakeholders - CBI, COSLA, Scottish Consumer Council, Homes for Scotland, Scottish Federation of Housing Associations, Communities Scotland and Scottish Natural Heritage. Published reports are available at www.scotland.gov.uk/

³⁵ Investing in Water Services 2006-2014 and Paying for Water Services 2006-2010

³⁶ The Scottish Executive (2005), *Investing in Water Services 2006-2014: Research into Customer Views*

5 In setting sustainable objectives for the water industry, Ministers intend to:

- achieve the maximum affordable improvement in public health and standards of environmental protection;
- support housing and economic growth in communities across Scotland through investment in new water and sewage capacity;
- achieve these outcomes while taking prudent steps to ensure that water charges remain stable and Scottish Water's capital programme is of a scale that can be delivered efficiently in the interests of all water customers.

6 In formulating objectives for investment, Ministers have considered Scottish Water's statutory duty to have regard to sustainable development. They recognise how Scottish Water's activities touch on every aspect of sustainable development and that further investment can secure improvements across a range of issues - improvements in drinking water quality, a better quality water environment, reductions in malodour problems from treatment works and provision to meet the infrastructural requirements for new developments. In considering these issues, Ministers have sought to reconcile the many competing investment requirements while at the same time ensuring that charges are stable, fair and affordable. Scottish Water's duty is to deliver investment in accordance with Section 51 of the Water Industry (Scotland) Act 2002.

7 Ministers have decided that the objectives of the investment programme should be set out over an eight year period. This will allow Scottish Water to plan ahead and to improve the prospects for efficient delivery of its objectives. The present Strategic Review of Charges covers a four year period, and the financial requirements for the period 2010-2014 will be considered in a subsequent Review. In order to allow the Water Industry Commission and Scottish Water to estimate the quantity of investment that must be financed and delivered in 2006-2010, Ministers have therefore separately specified investment outputs that must be delivered by 2010 and 2014.

8 In addition to setting objectives for capital investment, Ministers have established principles by which Scottish Water's customers should pay for their services in the period 2006-2010, and signalled further developments in their approach to charges for the period 2010 onwards. These are set out in a separate annex.

Investment Objectives: Essential and Desirable Improvements

9 In setting objectives for investment, Ministers require that Scottish Water be funded by means of the Strategic Review of Charges to deliver all of the following *essential* investment objectives to the extent that they fall due within the period of the 2006-2010 Review:

Table 1: Essential Investment objectives for Scottish Water 2006-2014

Issue	Objective
Capital Maintenance	Maintain service standards for customers to levels forecast for March 2006
Improving the Environment	Contribute to the improvement in the quality of water in 530 km of water bodies
Improving Drinking Water	Improve drinking water quality for 1.5 million people across Scotland
Development Constraints	Provide sufficient strategic capacity to meet the requirements of all estimated new development
Tackling Malodour at wastewater treatment works	Minimise odour nuisance at 35 wastewater treatment works.
Addressing Sewer Flooding	Remove a net 1,140 properties at risk from internal sewer flooding

10 Ministers also recognise the further benefits that would be obtained by setting more ambitious goals for investment over the period until 2014. Accordingly they have established a further series of *desirable* objectives in the following order of priority by 2014:

- To increase the total length of water bodies improved to 590 km;
- To accelerate the removal of lead communication pipes and improvements in the management of a further 11 water resource zones;
- To further improve the total length of water bodies improved to 1,270 km;
- To improve the water pressure provided to 5,625 properties; and
- To secure a net reduction of 850 in the number of properties affected by unplanned interruptions of non trunk mains, lasting longer than 12 hours,

11 Ministers require that the Water Industry Commission makes provision in the Strategic Review 2006-2010 for these desirable objectives in order of priority to the extent that:

- it is reasonable to expect that they can be delivered efficiently;
- and without projected charges to customers in the period to 2010 rising by more than levels of inflation.

CAPITAL MAINTENANCE

12 The extent to which Scottish Water's existing network of pipes, treatment works and other assets are properly maintained affects the standards of service which Scottish Water customers receive. For this reason, Ministers believe that (over the period 2006-2014), it is essential that service standards for customers across Scotland should, *at a minimum*, be maintained at those levels that have been achieved as a result of the Quality and Standards 2 investment programme.

13 In its advice to the Executive, the Quality and Standards 3 Board noted that there are a number of different approaches for establishing the appropriate level of investment required to maintain the existing infrastructure. The *Common Framework Approach* is considered to be the water industry's best practice approach and the Board recommended the application of a subset of OFWAT measures for this investment programme. This methodology measures the impact of capital maintenance spend upon asset performance as measured by a suite of customer focussed serviceability measures. These annually measured indicators are outlined in the table which appears below.

Table 2: Capital Maintenance Serviceability Indicators 2006-2014

Serviceability indicators	National Base Position 2006 – 2014 (Annually Measured)
Water Serviceability Indicator	
% Compliant Zones for Iron	83*
% Compliant Zones for Manganese	94*
No of microbiological (total coliform) failures at water treatment works	90*
Number of properties on the low pressure register	12,957*
Properties with unplanned interruptions to supply > 12 hours	16,184*
Number of burst per 1,000km of mains	204*
Wastewater Serviceability Indicator	
Number of properties at risk of internal flooding ³⁷	1,603*
Number of properties internally flooded due to other causes	366
Number of failing wastewater treatment works ³⁸ (capital maintenance)	45*
Number of unsatisfactory intermittent discharges	867*
Number of pollution incidents ³⁹	555*
Management & General	
Fleet, Scientific, Property, IT, Telemetry	Maintain to standards to be secured by Q&S 2
Health & Safety Compliance	Secure compliance with all existing and known new legislation
Asset Data	Enhance SW data to a sufficient level to support the operation of the common framework approach and other aspects of the investment programme

* These Serviceability Indicators will show an improvement over the period 2006-2014, derived from drinking water quality, environment, growth or customer enhancement programmes

14 Enhancements to the above service standards will be secured through additional water quality, environmental and other investment in improving services that also form part of the Ministers' objectives. In putting forward detailed plans for the delivery of their objectives, Ministers expect Scottish Water to quantify enhancement in service standards derived from other aspects of the programme, and thereby to establish in conjunction with the Water Industry Commission, biennial targets of asset performance throughout the period on the basis of the above types of measure.

³⁷ The number of properties at risk of flooding at least once in ten years

³⁸ Based on the Control of Pollution Act- look up table compliance (see <http://www.sepa.org.uk/guidance/water/index.htm>).

³⁹ Baseline subject to clarification by SEPA.

ENVIRONMENT

15 Improvements to the environment are governed by a range of EC Directives. Within the time span of this investment programme (2006-2014), objectives for most of these Directives will be drawn together under the umbrella of Water Framework Directive compliance. The essential investment described below is aimed at improving our level of compliance with these Directives, while the desirable investment will further reduce the risk of non-compliance by extending the work undertaken.

Statutory requirements and compliance dates

16 In putting forward plans for investment, Ministers recognise that Scottish Water is a key instrument through which desired environmental improvements may be realised. Ministers require that Scottish Water should take account of the following statutory requirements and key compliance dates:

- *Water Framework Directive: Natura 2000 sites (2012), actions under the 1st River Basin Plan (2009)⁴⁰; Controls (2012); Meeting environmental objectives (2015)*
- *Urban Waste Water Treatment Directive: (ongoing)*
- *Shellfish Waters Directive: (ongoing)*
- *Bathing Waters Directive: (ongoing)*
- *Integrated Pollution Prevention and Control Directive: (2007)*
- *Landfill Directive: (ongoing)*
- *Freshwater for Fish Directive: (ongoing)*
- *Dangerous Substances Directive: (ongoing)*

17 The following sets out the investment objectives Scottish Water is expected to meet. These include an essential investment objective and 2 further desirable objectives which will only be included in a final investment programme if they are found to be deliverable efficiently and within a stable prices regime

18 The Quality and Standards Board has described possible improvements to water bodies, based upon an assessment of the environmental improvement resulting from investment in Scottish Water assets and taking into account measures required from other potential sources of pollution to the water environment. Ministers require that in making plans to deliver improvements in the water environment, these should be set out in accordance with the relevant details established in the environmental legislation report to the Scottish Executive by the Quality and Standards 3 Project Board⁴¹.

19 Ministers believe that it is *essential* to improve 530 kilometres⁴² of water bodies to meet the environmental objectives of a range of European and domestic legislation across Scotland. In accordance with this essential requirement, Ministers have decided that during the period 2006-2010 the following improvements must be made:

⁴⁰ Drawn up on the basis of the best current understanding of the likely content of River Basin Plans.

⁴¹ Scottish Executive (2005), *Investing in Water Services 2006-2014: Environmental Legislation Report - A Report to the Scottish Executive by the Quality and Standards 3 Project Board*.

⁴² This figure represents the actual length of water body improved. As each water body may be improved for more than one environmental objective e.g. reductions in nutrient discharges in a reach may also be accompanied by improvements in bacterial quality to meet shellfish standards, the sum of the length improvements listed for the specific objectives will exceed the actual figure given here.

The Quality of the Water Environment

- Reduce the bacterial load from Scottish Water discharges in 64 km of designated bathing waters which are at risk of failing the mandatory standards of the current Bathing Waters Directive;
- Improve capacity at 18 unsatisfactory sewage works to comply with existing consent conditions under the Water Environment & Water Services Act 2003;
- Protect 17 km of waters designated as important UK sites for the Habitats and Bird Directives;
- Improve the quality of discharges to 50 km of designated waters in line with the environmental standards of the Freshwater Fish Directive;
- Reduce nutrients in sewage discharges affecting 39 km of waters to meet Urban Waste Water Treatment Directive requirements;
- Improve 23 km of surface waters by reducing discharges of oils and other chemicals from contaminated surface water drains to meet the requirements of the Dangerous Substances and Water Framework Directives;
- Improve the quality of discharges that affect 18 km of designated shellfish harvesting and production areas to meet the guideline standard;
- Improve both water and aesthetic quality of 83 km of surface waters currently affected by sewage and debris discharges from sewer networks to meet Urban Waste Water Treatment Directive requirements.

20 Ministers recognise the need to reuse and where appropriate, dispose of the by-products of water and waste water treatment, and have decided that the following specific objectives are essential to those aims.

Waste Management

- Deliver management and monitoring systems at 16 landfill sites, 10 sludge treatment centres and 35 water treatment works to comply with PPC regulations;
- Deliver the requirements of the Landfill Directive to contain, monitor and decommission 9 landfill sites currently operated by Scottish Water.

21 In further accordance with this essential requirement, Ministers have decided that during the period 2010-2014 the following improvements in water quality should be made:

The Quality of the Water Environment

- Improve the quality of discharges that affect a further 5 km of waters designated as important UK sites for the Habitats and Bird Directives;
- Improve the quality of discharges to a further 56 km of designated waters in line with the environmental standards required under the Freshwater Fish Waters Directive;
- Reduce nutrients in sewage discharges to another 278 km to meet Urban Waste Water Treatment Directive requirements;
- Improve a further 25 km of surface waters by reducing discharges of oils and other chemicals from contaminated surface water drains to meet the requirements of the Dangerous Substances and Water Framework Directives;
- Improve discharges to 2 km of designated Shellfish harvesting and production areas to meet the guideline standard;
- Improve both water and aesthetic quality of a further 58 km of surface waters currently affected by sewage and debris discharges from sewer networks to meet Urban Waste Water Treatment Directive requirements.

Management of waste products associated with drinking water and sewage treatment

- Improve sludge management facilities to meet the requirements of the Safe Sludge Matrix at five sludge treatment centres
- Develop a GIS system to manage data on the location and status of redundant asbestos water main pipelines;

22 Beyond the above essential works, Ministers also believe that it would be *desirable* in the first instance to improve an additional 60 km of water bodies across Scotland over the period 2010-14 (totalling to 590 km). In addition to the essential works, Ministers would wish to see over the period 2010-14:

- Improve the aesthetic and water quality of a further 60km of surface waters downgraded by sewage and debris discharges from sewer networks to meet the requirements of the Urban Waste Water Treatment Directive;
- reduce nutrients in sewage discharges affecting an additional 17 km to meet the requirements of the Urban Waste Water Treatment Directive;

23 Finally, subject to the order of priorities indicated at paragraph 10, Ministers believe that it would be *desirable* to improve an additional 680 km of water bodies across Scotland (totalling to 1,270 km).

24 During the period 2006-2010 Ministers would wish to:

- Reduce nutrient levels in sewage discharges affecting a further 12 km of waters to meet the requirements of the Urban Waste Water Treatment Directive;
- improve the aesthetic and water quality of a further 48 km of surface waters downgraded by sewage and debris discharged from sewer networks to meet the requirements of the Urban Waste Water Treatment Directive;

25 During the period 2010-2014 Ministers would wish to:

- Reduce nutrient levels in sewage discharges affecting a further 630 km of waters to meet the requirements of the Urban Waste Water Treatment Directive;
- Improve the quality of discharges to a further 12 km of designated waters in line with the environmental standards of the Freshwater Fish Waters Directive.

DRINKING WATER AND WATER RESOURCES

26 The improvement of drinking water and water resources is governed by the EC Drinking Water and Water Framework Directives. The essential investment described below is aimed at securing compliance with these Directives, while the desirable investment will reduce the risk of non-compliance by accelerating delivery of compliance with the lead standard set in the Drinking Water Directive and with the abstraction and impoundment control requirements set in the Water Framework Directive.

27 In establishing objectives for improvement of the water environment, Ministers have taken into account the statutory requirements as follows:

- *Drinking Water Directive: most parameters by (2003) except Trihalomethanes (2008) and Lead (2013)*
- *Water Framework Directive: Natura 2000 sites (2012) and Controls (2012)*

28 Ministers require that in making plans to deliver improvements in drinking water quality, these should be set out in accordance with the relevant details established in the report on drinking water quality and water resources to the Scottish Executive by the Quality and Standards 3 Project Board⁴³.

⁴³ Scottish Executive (2005), *Investing in Water Services 2006-2014: Drinking Water Quality and Water Resources - A Report to the Scottish Executive by the Quality and Standards 3 Project Board.*

29 Ministers believe that it is *essential* that improvements are made to improve drinking water quality for 1.5m people across Scotland. In accordance with this essential requirement, Ministers consider that during the period 2006-2010 the following improvements must be made:

Drinking Water Quality

- Comply with the Cryptosporidium (Scottish Water) Directions 2003 and upgrade water supplies serving 1.5 million people to minimise the risk of non-compliance with the standard set in the Water Supply (Water Quality) (Scotland) Regulations 2001 for trihalomethanes and all other regulatory parameters (except lead which is addressed during the period 2010-2014).
- Improve disinfection control on water supplies serving 4 million people to improve taste and odour and reduce customer water quality complaints.
- Replace 35,000 lead communication pipes as the result of customer driven requests

The Management of Water Resources

- Reduce abstraction and provide increased compensation flows at all drinking water sources in 78 water resource zones. This will include all sources potentially affecting Natura 2000 designated sites.
- Support SEPA in determining the protection measures required for 574 drinking water sources.
- Provide flow metering and recording at 574 drinking water sources.
- Carry out 20 flood studies on reservoirs following statutory dam inspections and undertake remedial works as necessary.

Water Quality Protection

- Install backflow prevention devices at 235 waste water treatment works to ensure that these works comply with the water byelaws.
- Comply with incident report recommendations and reduce risk of contamination of water supplies by removing 5,500 cross connections.
- Develop WHO water safety plans for public drinking water supplies covering 50% of the population

Security of Supply

- Provide for increased physical security to agreed Security Service standards and improved provision in the event of an emergency. Details to be provided separately

30 In further accordance with requirement, Ministers believe that during the period 2010-2014, the following improvements must be made:

Drinking Water Quality

- Install and optimise plumb solvency control to water supplies serving 500,000 people to meet tighter standard for lead in drinking water and replace 130,000 lead communication pipes.

- Install treatment for 178 properties currently served by raw water aqueducts to minimise risk of non-compliance with European Drinking Water Directive.
- Rehabilitation of water mains serving 750,000 people to minimise the risk of water quality being degraded by the condition of the mains.
- Replace a further 35,000 lead communication pipes as the result of customer driven requests

Water Quality Protection

- Install backflow prevention devices at 235 waste water treatment works to ensure that these works comply with the water byelaws.
- Comply with incident report recommendations and reduce risk of contamination of water supplies by removing 5,500 cross connections.
- Develop WHO water safety plans for public drinking water supplies covering the remaining 50% of the population

Security of Supply

- Provide for increased physical security to agreed Security Service standards and improved provision in the event of an emergency. Details to be provided separately
-

The Management of Water Resources

- Reduce abstraction and provide increased compensation flows at all drinking water sources in 26 water resource zones.
- Construct fish passes and provide freshet flows at 27 sites currently causing obstruction to the movement of migratory fish
- Carry out restoration works at 85 abandoned engineering works as determined by the Water Framework Directive.
- Carry out 20 flood studies and undertake remedial works as necessary.

31 Beyond the essential works described above, Ministers also believe that it would also be *desirable* to undertake measures designed to accelerate the removal of lead communication pipes and improvements in the management of 11 water resources zones. In accordance with this aim, and in accordance with the priorities set at paragraph 10, in the period 2010-14 Ministers wish the delivery of the following improvements:

Water Quality

- Replace an additional 90,000 lead communication pipes.

The Management of Water Resources

- Reduce abstraction and provide increased compensation flows to meet Water Framework Directive standards at all drinking water sources in a further 11 water resource zones.

STRATEGIC CAPACITY FOR NEW DEVELOPMENT

32 Including provision for additional capacity within the public network is important if communities are to be allowed to grow through new housing and commercial developments. Whilst capacity already exists within the public networks, decisions to build new development can give rise to a requirement for additional investment. Historically, Scottish Water has been expected to fund all the infrastructure requirements arising from new development. However, Ministers wish to bring forward arrangements whereby Scottish Water will be responsible for the removal of constraints caused by lack of capacity at a strategic level⁴⁴. Where a particular development requires additional local capacity which is not being addressed by other areas of the programme, Ministers intend that the cost of providing this should be met by the developer. Ministers will bring forward new regulations under the Water Environment and Water Services Act 2003 to bring this about.

33 In establishing these new arrangements, Ministers expect significant improvement in the planning and delivery of new strategic capacity in the public system. The combination of more secure funding and better asset information secured through Scottish Water's current investment will allow Scottish Water to develop a more proactive engagement with local authorities to ensure that water and drainage capacity issues are properly integrated into the planning process. A further element offering improvements is the conclusion of the work between SEPA and Scottish Water to develop a *Memorandum of Understanding on the Impact of Proposed Development on the Public System*. This document seeks to establish clearer lines of communication between Scottish Water and SEPA to ensure that Scottish Water's arrangements for identifying assets at risk of overload and SEPA's approach to identifying watercourses at risk of environmental degradation are integrated to maximise the available capacity for new development across the country. This Memorandum of Understanding should be operational across Scotland by March 2006.

34 Taking these matters into account, Ministers consider it *essential* to provide sufficient 'strategic capacity'⁴⁵ to meet all estimated new housing developments and the domestic requirements of commercial and industrial developments. Estimates of the scale of new development have been calculated drawing upon analysis of Scottish Executive Housing Trends data and an assessment of likely development anticipated by local authorities. This analysis estimates a need to allow for an additional 120,000 new homes and 4,050 hectares of new commercial land over the SRC period. The Executive will review these estimates in light of any new or improved data that emerges subsequent to the review. If this results in the estimates being revised, the Executive will restate this objective in terms of the revised estimate. It will notify the Commission and Scottish Water of the restated objective, so that, for their respective functions, they can consider whether the restatement requires the Commission to conduct a review of its determination.

35 Ministers consider that during the period 2006-2010 the following measures must be taken:

- From April 2006, Scottish Water should publish annually a document outlining their strategic network capacity and development plans. The format of this document is to be agreed with the Water Industry Commission. The report should be updated on an annual basis thereafter.

⁴⁴ Strategic capacity or part iv assets refer to Scottish Water's "Primary Assets"; Raw Water Intakes, Water Impounding Reservoirs, Water Aqueducts, Water Pumping Stations, Water Treatment Works, Wastewater Treatment Works.

⁴⁵ *ibid.*

- Plans should be established to deliver 'strategic' capacity⁴⁶ to allow 60,000 new homes⁴⁷ and 2,025 hectares of new commercial land to be connected to the public water & wastewater network. This will require the provision of 'strategic' capacity for an additional 40,000 population equivalents (PE) at a number of wastewater treatment works and provide 'strategic' capacity for an additional 16,500 PE at a number of water treatment works⁴⁸.

36 In formulating investment plans for this area of investment, Scottish Water and the Water Industry Commission should take account of: General Register Office for Scotland's population projections; Scottish Executive's household projections; and the *SEPA/SW Memorandum of Understanding on the Impact of Proposed Development on the Public System (forthcoming)*.

37 Ministers also require that delivery of these investment requirements should be informed by the quality investment programme, the spatial priorities identified in the National Planning Framework, and development priorities identified by local authorities in their Structure and Local Plans.

38 In further accordance with this essential objective, during the period 2010-2014, Ministers require that:

- Scottish Water continue to publish annually a document outlining network capacity and development plans to invest in strategic capacity: the format of this document is to be agreed with the Water Industry Commission.
- Plans should be established to provide 'strategic' capacity⁴⁹ to allow a further 60,000 new homes and 2,025 hectares of new commercial land to be connected to the public water & wastewater network. This will require 'strategic' capacity for an additional 40,000 PE at a number of wastewater treatment works and provide 'strategic' capacity for an additional 16,500 PE at a number of water treatment works.⁵⁰

39 In formulating investment plans for this area of investment, the following factors should be taken into account: - General Register Office for Scotland's population projections; Scottish Executive's household projections; and SEPA/SW Memorandum of Understanding on the impact of proposed development on the public system operated by Scottish Water and regulated by SEPA.

40 Delivery of this investment requirement should be informed by the Quality and Standards 3 Quality Programme, the spatial priorities identified in the National Planning Framework, and the development priorities identified in statutory development plans.

⁴⁶ *ibid*

⁴⁷ Excludes homes to be built on already serviced sites

⁴⁸ Provision for strategic capacity has been calculated by applying a population equivalence figure to the assessed housing and commercial requirements and adjusting this for the level of anticipated constraint at part iv assets.

⁴⁹ Part iv assets refer to Scottish Water's "Primary Assets"; Raw Water Intakes, Water Impounding Reservoirs, Water Aqueducts, Water Pumping Stations, Water Treatment Works, Wastewater Treatment Works.

⁵⁰ See footnote 14

MALODOUR AT WASTEWATER TREATMENT WORKS

41 The problem of malodour at wastewater treatment works has been a matter of growing public concern for some time. This has led the Executive to produce a draft voluntary code of practice on odour control to establish standards of control and enforcement, which is due to be implemented in April 2005, and to be replaced by a statutory code in April 2006.

42 As part of the Quality and Standards 3 process, consideration was given to the nature of the malodour problem at wastewater treatment works and the scope to address it in the period 2006-14. Following an assessment by Scottish Water of the required remedial work needed to address odour control measures, a recommendation was made that action be taken to minimise the nuisance at the 35 worst offending of these works over the period 2006-2014. This figure was based on Scottish Water's estimate of worst offending sites and an assessment of the requirements to address problem sites over the next eight year period, and was carried out prior to discussion around the proposed statutory code of practice.

43 With effect from 1 April 2006, Scottish Water and the operators on its behalf of sewage treatment works will be bound by an additional legislative control in the form of a statutory code of practice, introduced under provisions included in the Water Services (Scotland) Bill 2005. The code will require Scottish Water and their contractors to assess and control odour nuisance at all wastewater treatment works and sewage pumping stations using best practicable means. Although the proposed statutory code is scheduled to be implemented in April 2006 in conjunction with this investment programme, it is recognised compliance will occur on a roll out basis.

44 Scottish Water has not yet assessed whether complying with the statutory code will place costs on it over and above those arising from the Executive's objectives and the proposed voluntary code on which the statutory code will be based. In the event that compliance does give rise to any additional operating costs or capital expenditure, such costs will be treated as arising from a new objective that the Executive has set Scottish Water subsequent to this statement. If such costs are material and Scottish Water is unable to meet them from within the charge limits and borrowing set in the SRC, Scottish Water may seek to have the determination of its charge limits reviewed. This will enable the Water Industry Commission to assess the impact of compliance on Scottish Water and if necessary to determine an increase in customer charges sufficient to cover the additional costs.

45 In line with the recommendations made by the Quality and Standards Board and pending finalisation of the voluntary code of practice on odour control, Ministers require that action be taken to minimise odour at 35 existing wastewater treatment works.

In accordance with this objective Ministers require that, during the period 2006-2010, measures be implemented to minimise odour nuisance at a minimum of 14 wastewater treatment works taking into account the principle of best practicable means over the period 2006-2010. The 14 sites to be decided by a forum comprising the Executive, Scottish Water, the WIC, local authorities and WCCP by reference to those causing the greatest impact and on which agreement exists on the required remedial action

Similarly, Ministers require that, during the period 2010-14, control measures be implemented to minimise odour nuisance at a minimum of 21 wastewater treatment works taking into account the principle of best practicable means. The 21 sites to be decided by a forum comprising the Executive, Scottish Water, the WIC, local authorities

and WCCP by reference to those causing the greatest impact and on which agreement exists on the required remedial action

ALLEVIATING INTERNAL SEWER FLOODING

46 Sewer flooding is a relatively rare occurrence. Ministers recognise, however, that when it does occur it is very distressing for those customers affected and poses a risk to public health. In its first draft business plan, Scottish Water outlined possible measures to ameliorate internal sewer flooding. Ministers believe that this proposal should be included within the *essential* programme of capital works. For this reason Ministers require that a net reduction of 1,140 properties from the risk of internal sewer flooding over the period 2006-2014.

In accordance with this objective Ministers require that, during the period 2006-2010, there should be a net reduction of 456 properties at risk from internal sewer flooding at a frequency of once or more than once over a period of ten years.

Similarly, Ministers require that, during the period 2010-14, there should be a net reduction of 684 properties that are at risk from internal sewer flooding at a frequency of once or more than once over a period of ten years.

47 In establishing plans for the achievement of this objective, Ministers expect consideration to be given to the costs associated with relief measures for a given number of properties, and the level of risk of predicted flooding.

TACKLING INADEQUATE WATER PRESSURE

48 Customers expect Scottish Water to supply water at a pressure that is sufficient for cleaning, drinking, washing and cooking. Without adequate pressure some household appliances, such as boilers and electric showers, may not work.

49 Ministers recognise the inconvenience which can be caused by inadequate water pressure, and have concluded that it would be *desirable* if the number of properties that are supplied at a pressure of less than one bar was reduced by 5,625 properties over the period 2006-2014. In setting this desirable objective for the period as a whole and in accordance with their stated order of preference, Ministers expect plans to be established to address 2,250 properties (that previously did not receive 1 bar pressure) in the period 2006-2010, and for 3,375 properties (that previously did not receive 1 bar pressure) in the period 2010-2014.

50 In establishing plans for the achievement of this objective, Ministers expect consideration to be given to the costs associated with improvement measures for a given number of properties, and the likelihood that properties will suffer poor pressure.

51 Ministers recognise that plans should be consistent with the requirements of the Water (Scotland) Act 1980 as regards properties situated above the level of water leaving a network storage tank, or situated between the level of water leaving a network storage tank and a level 10.5 metres below the tank.

IMPROVING UNPLANNED INTERRUPTIONS TO THE WATER SUPPLY

52 Unplanned interruptions to the water supply can cause a significant inconvenience to customers. Such interruptions can occur for a variety of reasons – these include the condition of the infrastructure or indeed natural ground movement.

53 Ministers recognise the inconvenience which can be caused by unplanned interruptions in the water supply. Accordingly, they consider that it would be *desirable* if there was a net reduction of 850 in the number of properties affected by unplanned interruptions in non-trunk mains by 2014. In establishing this objective, Ministers wish that by 2006-2010 there will be a net reduction of 425 properties affected, and that by 2014 there will be a further net reduction of 425 properties affected. It is expected that delivery of this investment will improve the standard of service experience by a number of smaller communities in the north west of Scotland.

TAKING THIS IMPORTANT INVESTMENT FORWARD

54 In setting objectives for the water industry, Ministers intend to:

- achieve a substantial improvement in public health and standards of environmental protection;
- support housing and economic growth in communities across Scotland through investment in new water and sewage capacity; and
- achieve these outcomes while taking prudent steps to ensure that water charges remain stable and Scottish Water's capital programme is of a scale that can be delivered efficiently in the interests of all water customers.

55 In accordance with the timetable set out in their letter of 26th May 2004, Ministers require Scottish Water to prepare a Business Plan setting out how they would propose to meet all of the objectives set out above. As part of this plan, Ministers will require Scottish Water to provide them with reassurance that industry regulators are content that Ministers' requirements have been included with the Plan. Thereafter the Water Industry Commission will establish by means of the Strategic Review of Charges, the resources required to deliver all *essential* investment objectives (to the extent that they fall due within the period of the 2006-10 Review) and also the *desirable* objectives (in order of priority) to the extent that the latter can be delivered with a reasonable expectation of efficiency, and without charges to customers rising by more than levels of inflation that are projected in the period to 2010. Ministers have asked that a draft of the Strategic Review is published by the end of June 2005.

56 Ministers recognise that planning investment over an 8 year period will promote value for money in the use of customers' and taxpayers' resource. Ministers also attach considerable importance to the establishment of *effective monitoring and review mechanisms* in order to ensure that the programme is delivered: efficiently; on time; and that it is sufficiently flexible to accommodate changes that may become necessary over time. For this reason Ministers require that prior to commencement of the investment programme in 2006:

An investment monitoring group will be established to monitor the delivery of the investment programme. This Group will be made up of Scottish Executive, SEPA, DWQR, WCCP, Water Industry Commission and Scottish Water who will meet on a regular basis to review progress on the capital programme, and that regulators will undertake detailed monitoring of those elements of the programme that fall under their auspices.

Arrangements for making changes in the investment programme should be put in place that will allow Scottish Water and its regulators to utilise better information or respond to unanticipated or unpredictable events. These arrangements should allow Scottish Water, in discussion with its regulators, within the overall terms of the investment programme and costs, to change the means by which these objectives are to be secured – all to the benefit of customers. Where Ministers consider changing the investment objectives or wish to incorporate a new requirement, they will normally consult the parties to these arrangements.

Scottish Executive
9 February 2005

